

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities



Beaumont

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Beaumont Health is Michigan's largest health care system, based on inpatient admissions and net patient revenue, that was formed in 2014 to provide patients with compassionate, extraordinary care, no matter where they live.

With eight hospitals, 145 outpatient locations, nearly 5,000 physicians and 38,000 employees, Beaumont's commitment to patient and family-centered care contributes to the health and well-being of residents throughout the community and beyond.

Mission, vision and values

Compassion is a fundamental attribute to be a Beaumont physician, employee or volunteer. It is so critically important that compassion is reflected in our Mission, Vision and Values:

Our mission

Compassionate, extraordinary care every day

Our vision

To be the leading high-value health care network focused on extraordinary outcomes through education, innovation and compassion

Our values

- Compassion
- Respect
- Integrity
- Teamwork
- Excellence

Our Mission is why we exist as an organization. Our Vision is what we want to become. Our Values guide our behavior and actions in everything we do for our patients, families, colleagues and communities.

8 hospitals

145 outpatient locations

5,000 physicians

38,000 employees

Beaumont contributes to the health and well-being of residents throughout southeast Michigan and beyond.

Letter from the CEO

Beaumont Health CEO's message to the community

As a non-profit health system, and the largest in Michigan, Beaumont Health has an obligation to support and educate the communities we serve on healthy living. But this responsibility is also an honor and a privilege to carry out. Every three years, we refresh our approach to population health and wellness through the Community Health Needs Assessment, or CHNA.

The CHNA process is a valuable opportunity to listen to those who work and live in our community and get input on what health concerns matter most. We also look for the most effective, evidence-based ways to work together to improve the health of our communities. Whether it is obesity, cardiovascular disease, diabetes, mental health or some other concern, it is imperative we learn from those we serve how we can work together to improve their quality of life. Collectively, we have worked hard since the last report to address the key priorities identified in our previous CHNA and to move the needle on health indicators. We have implemented several programs to provide care to those most in need. We are very proud of what we have accomplished but understand there is still much work to be done.

This report details the most pressing health concerns in the communities Beaumont Health serves. It also outlines our plans to address those concerns, now and in the future. It is the result of months of research and data analysis, based on in-depth discussions, structured interviews and information from residents, health experts and community organizations.

Beaumont's service area spans virtually all of Southeast Michigan. This report will serve as a navigational beacon as we reach out with, and for, the men, women and children of the region to attain the highest levels of health and wellness anywhere.

Throughout Beaumont Health, we take our responsibility seriously to set the standards of care not just in our clinical care areas, but also on the streets, parks, paths, community centers and classrooms of the region. Only by strengthening and integrating our clinical and community programs will we be successful in our quest to improve population health.

It is our honor to provide compassionate, extraordinary care every day and to help our communities enjoy healthy, happy lives.

Sincerely,

John T. Fox
President & CEO
Beaumont Health

Compassionate, extraordinary care every day

Executive summary

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.

Executive summary

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

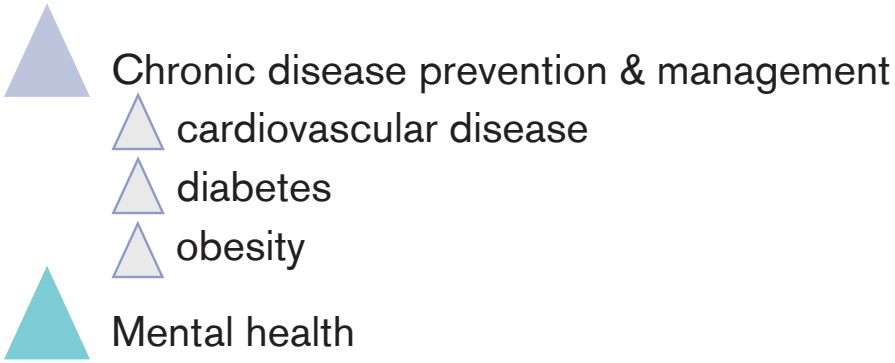
A description of these needs is included in the body of this report. The hospital facilities will each develop implementation strategies with specific initiatives to address the chosen health needs, to be completed and adopted by Beaumont by April 15, 2020.

An evaluation of each hospital's implementation strategy drafted after the 2016 assessment is included in ***Appendix I***.

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:



Community Health Needs Assessment requirement

As a result of the Patient Protection and Affordable Care Act, all tax-exempt organizations operating hospital facilities are required to assess the health needs of their community through a Community Health Needs Assessment once every three years.

The written CHNA Report must include descriptions of the following:

- the community served and how the community was determined
- the process and methods used to conduct the assessment, including sources and dates of the data and other information, as well as the analytical methods applied to identify significant community health needs
- how the organization took into account input from persons representing the broad interests of the community served by the hospital, including a description of when and how the hospital consulted with these persons or the organizations they represent
- the prioritized significant health needs identified through the CHNA, as well as a description of the process and criteria used in prioritizing the identified significant needs
- the existing health care facilities, organizations, and other resources within the community available to meet the significant community health needs
- an evaluation of the impact of any actions that were taken, since the hospital facility's most recent CHNA, to address the significant health needs identified in that last CHNA

A CHNA is considered conducted in the taxable year that the written report of its findings, as described above, is approved by the hospital governing body and made widely available to the public. The Patient Protection and Affordable Care Act also requires hospitals to adopt an implementation strategy to address prioritized community health needs identified through the assessment.

An implementation strategy is a written plan that addresses each of the significant community health needs identified through the CHNA and is a separate but related document to the CHNA report.

The written implementation strategy must include:

- a list of the prioritized needs the hospital plans to address and the rationale for not addressing other significant health needs identified
- actions the hospital intends to take to address the chosen health needs
- the anticipated impact of these actions and the plan to evaluate such impact; for example, identifying data sources that will be used to track the plan's impact
- programs and resources the hospital plans to commit to address the health needs
- any planned collaboration between the hospital and other facilities or organizations to address the health needs

The implementation strategy, or implementation plan, is considered implemented on the date it is approved by the hospital's governing body. The CHNA implementation strategy is filed along with the organization's IRS Form 990, Schedule H and must be updated annually with progress notes.

Overview, methodology and approach

Beaumont Health began the 2019 CHNA process in January 2019 and partnered with IBM Watson Health to complete a CHNA for the communities served by their hospital facilities. The eight Beaumont hospital facilities with overlapping communities have collaborated to conduct this joint Community Health Needs Assessment. This joint CHNA applies to the following Beaumont facilities:

- Beaumont Hospital, Dearborn
- Beaumont Hospital, Farmington Hills
- Beaumont Hospital, Grosse Pointe
- Beaumont Hospital, Royal Oak
- Beaumont Hospital, Taylor
- Beaumont Hospital, Trenton
- Beaumont Hospital, Troy
- Beaumont Hospital, Wayne

Consultant qualifications and collaboration

IBM Watson Health delivers analytic tools, benchmarks and strategic consulting services to the health care industry, combining rich data analytics in demographics, including the Community Needs Index, planning and disease prevalence estimates, with experienced strategic consultants to deliver comprehensive and actionable Community Health Needs Assessments.

The overall Beaumont community is the aggregate of individual hospital communities. It is important to note that individual hospital communities overlap. The Beaumont hospitals are located in, and each serve, some portion of Macomb, Oakland and Wayne counties. Beaumont approached the CHNA process as a collaborative effort between their hospitals.

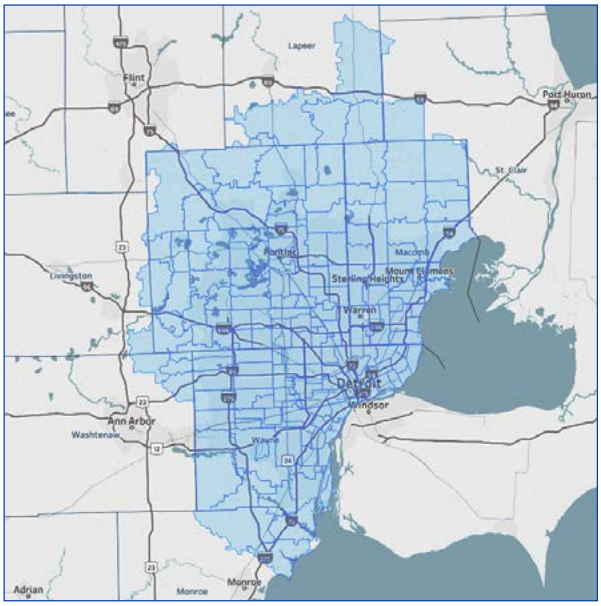
CHNA Steering Committee

The health system formed a committee to oversee and advise the CHNA process. Beaumont Health's senior vice president of Government Relations and Community Affairs served as the executive sponsor of the CHNA. The vice president of Community Health and Outreach and the directors of Community Health and Outreach served as project managers. Members of the CHNA Steering Committee can be found in ***Appendix A***.

Community served definition

For the purpose of this assessment, the geographic boundary for this study encompasses the combined, contiguous geography of the Beaumont hospitals' primary service areas. Each hospital's primary service area is defined by the contiguous ZIP codes where 80% of the hospital's admissions originate.

The combined primary service areas of the eight hospitals principally include Macomb, Oakland and Wayne counties in Southeast Michigan. In 2018, the total population of the community served by Beaumont was estimated to be 3.9 million people.



Source: Beaumont Health, 2019

Beaumont Health Community Health Needs Assessment Map of communities served

Assessment of health needs

To identify the health needs of the community, Beaumont established a comprehensive method of accounting for all available relevant data, including community input. The basis of identification of community health needs was the weight of qualitative and quantitative data obtained when assessing the community. Surveyors conducted interviews and focus groups with individuals representing public health, community leaders/groups, public organizations and other providers. Additionally, a community survey was conducted among community residents. Quantitative data collected from several public sources was benchmarked against a state value to indicate the level of need.

The Beaumont hospital communities are defined by ZIP codes; however, public health indicators are most commonly available by county. Therefore, the counties that principally comprise a majority of the community were used in determining health needs for that hospital community. Health needs were assessed at a hospital community level then aggregated across the eight hospital communities to identify the predominant health needs for the overall Beaumont community.

Methodology and data sources

Public health indicators were used to assess community health needs from a quantitative data perspective. This included collection of 202 data elements grouped into 13 categories and evaluated for the counties where data was available. The categories of indicators collected are included in the table below. The categories, indicators and sources are included in ***Appendix C***.

Categories	Indicators
Access to care	**11**
Cancer	**20**
Conditions/diseases	**35**
Environment	**12**
Health behaviors	**16**
Health status	**7**
Infectious conditions/diseases	**9**
Injury and death	**25**
Maternal and child health	**14**
Mental health	**16**
Population	**15**
Preventable hospitalizations	**9**
Prevention	**13**

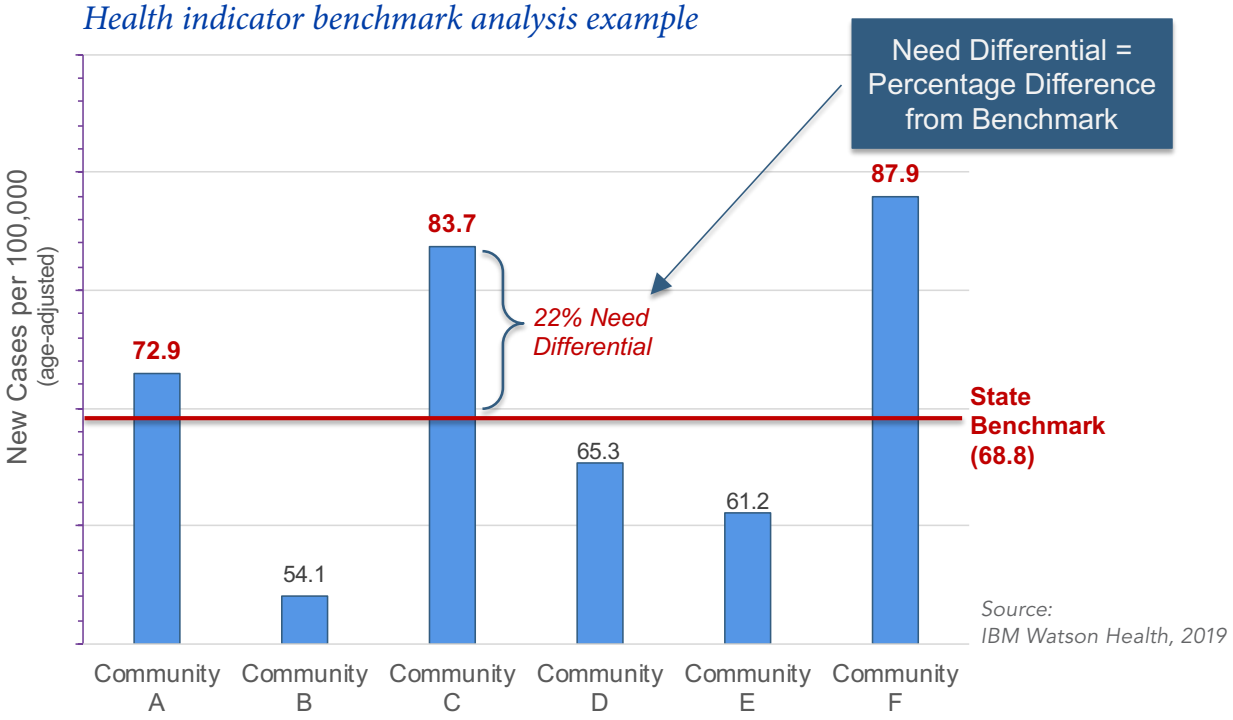
A benchmark analysis was conducted to determine the public health indicators that demonstrated a community health need from a quantitative perspective. Benchmark health indicators included, when available: overall U.S. values and Michigan values.

According to America's Health Rankings 2018 Annual Report, the health of Michigan residents ranks 34th out of the 50 states.[1] The health status of Michigan compared to other states in the nation identified many opportunities to impact health within local communities, including opportunities for those communities that ranked highly. Therefore, the benchmark for the community served was set to the state value. Once the community benchmark was set to the state value, it was determined which indicators for the community did not meet the state benchmarks. This created a subset of indicators for further analysis. A need differential analysis was conducted to understand the relative severity of need for these indicators. The need differential established a standardized way to evaluate the degree each indicator differed from its benchmark. Public health indicators with need differentials above the 50th percentile were ordered by severity; the highest ranked indicators were the top health needs from a quantitative perspective. These data are available to the community via an interactive Tableau dashboard at beaumont.org/chna. *The outcomes of the quantitative data analysis were compared to the qualitative data findings.*

[1]*America's Health Rankings, 2018*

Overview, methodology and approach

Health indicator benchmark analysis example



Source: IBM Watson Health, 2019

Qualitative assessment of health needs and community input: Approach

In addition to analyzing quantitative data, IBM Watson Health conducted eight focus groups with a total of 93 participants, as well as 40 key informant interviews, to gather the input of persons representing the broad interests of the communities served throughout the region. The focus groups solicited feedback from leaders and representatives who serve the community and have 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 as well.

The focus groups familiarized participants with the CHNA process and solicited input to understand health needs from the community's perspective. Focus groups, formatted for individual and small group feedback, helped identify barriers and social determinants influencing the community's health needs.

IBM Watson Health conducted key informant interviews for the communities served by the hospitals. The interviews provided insight into concerns about the general health status of the community and the various drivers that contribute to health issues.

Participation in the qualitative assessment was included from five 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 who served and/or represented the interests of medically underserved, low-income and minority populations in the community.

Participation from community leaders/groups, public health organizations, other health care organizations and other health care providers ensured that the input received represented the broad interests of the community served. A list of the organizations providing input can be found in ***Appendix D***.

Summary findings from the focus groups and interviews can be found in ***Appendix E***. Additionally, a community survey, which included 1,400 responses from throughout the Beaumont community, supplemented the focus groups and interviews. Findings from the community survey can be found in ***Appendix F***.

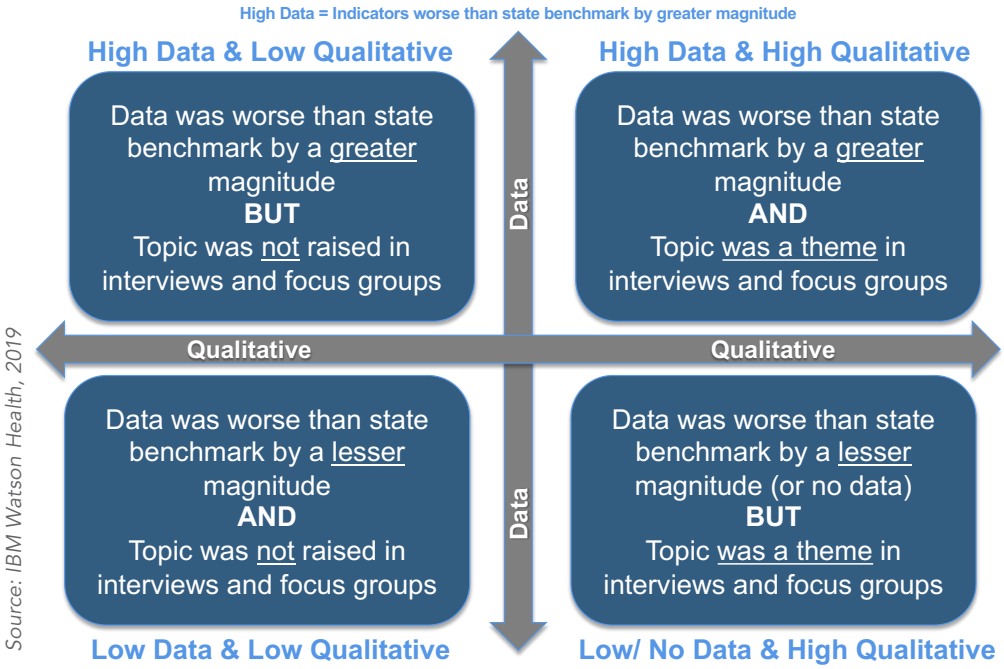
In addition to soliciting input from public health and various stakeholders in the community, Beaumont was also required to consider written input received on their most recently conducted CHNA and subsequent implementation strategies.

Beaumont made the prior assessment available on the Beaumont website —beaumont.org/chna — and welcomed public comment or feedback on the report findings. To date, we have not received such written input on the 2016 CHNA and implementation strategies but continue to welcome feedback from the community.

Community input from qualitative data collection was organized into themes around community needs. These themes were compared to the quantitative data findings.

Methodology for defining community need

Using qualitative feedback from the interviews, focus groups and surveys, as well as the health indicator data, the issues currently affecting each community served were assembled in the health needs matrix below to help identify the top health needs for the community. The upper right quadrant of the matrix is where the needs identified in the qualitative data (interviews, focus groups, surveys) and quantitative data (health indicators) converge to identify the top health needs for the community. The results were aggregated across the eight hospital communities to identify the predominant health needs for the overall Beaumont community. Needs appeared on the Beaumont matrix if they were common across at least five of the eight Beaumont hospital communities.



Putting it all together:

The Health Needs Matrix

Overview, methodology and approach

Information gaps

Most public health indicators were available only at the county level. In evaluating data for entire counties versus more localized data, it was difficult to understand the health needs for specific population pockets within a county. This creates a challenge in tailoring interventions to address community health needs, as placement and access to specific programs in one part of the county may or may not actually affect the population who truly need the service. The publicly available health indicator data was supplemented with IBM Watson Health's ZIP code estimates to assist in identifying specific populations within a community where health needs may be greater.

Approach to identify and prioritize significant health needs

In May 2019, the CHNA Steering Committee identified five criteria for prioritizing health needs identified through the assessment:

1. Importance of the problem to the community: importance of the issue to the population affected. Momentum or drive within the community exists to create change.
2. Severity: the degree of disability or premature death that occurs because of the problem. Potential burdens to the community, such as economic or social burdens.
3. Magnitude: the number of persons the problem affects, either actually or potentially.
4. Existing resources: the existing resources, hospital resources, ability to partner, leadership support and organization infrastructure/capacity that currently exist to address the need.
5. Ability to measure change: the ability to measure improvement on a population scale.

In addition to identifying criteria, the steering committee emphasized the underlying foundation of the Beaumont prioritization process should be to focus on serving vulnerable populations.

On June 11, 2019, a prioritization session was held with representatives from across Beaumont. The participants included leaders from each hospital, corporate leaders, community health staff, leaders from fields related to community health and members from community affairs. Prioritization session participants can be found in Appendix G. These participants used a comprehensive method of taking into account all available relevant data, including community input. Moderated by IBM Watson Health, the meeting 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.

Prioritization of the health needs took place in two steps. In the first step, participants reviewed a summary of demographics, health data findings and the health needs matrix for the community. This overview also included an explanation of the quadrants of the health needs matrix. The participants agreed that the needs in the upper right quadrant of the matrix (those identified as high data/high qualitative) were significant health needs for the community. The group then reviewed the other quadrants of the matrix where either the quantitative data or qualitative input indicated a need (upper left and lower right quadrants respectively). Leveraging their professional experience and community knowledge, the group was given the opportunity to identify up to six additional significant health needs from other quadrants of the matrix due to their potential or actual impact on the community.

After some discussion, the group decided to include one additional health need as significant. The group added obesity from lower right quadrant of the matrix (low data/high qualitative), recognizing the need was identified by the community as a high need and obesity rates in the community still indicate a need when compared to the state benchmark (but to a lesser extent than those in the upper right quadrant). Additionally, the group acknowledged that obesity contributes to many chronic diseases and Beaumont still considers it to be a significant health need within the community to be prioritized along with the other significant health needs.

In the second step, session participants then worked in six sub-groups to evaluate the significant health needs using the set of prioritization criteria chosen by the Steering Committee. Through discussion and consensus in each sub-group, the Beaumont community's significant health needs were individually rated on each of the five criteria using a scale of 1 (low) to 10 (high). The scores by each sub-group were summed up for each need, creating an overall score. The scores by need were then averaged across all six sub-groups to create an overall score for each need. The list of significant health needs was than prioritized based on the overall scores. The outcome of this process, the list of prioritized health needs for this community, is located in the Prioritized significant health needs section of the assessment.

Determining the health needs to be addressed by Beaumont Health

The prioritization participants were asked to determine which of the resulting prioritized significant health needs Beaumont would address through their CHNA implementation strategies.

The participants were asked to consider the following:

- Each hospital will need to create their own implementation plan around addressing the chosen priorities.
- Consider limiting chosen needs to the top two to four.
- Needs that are shared between communities create opportunities for collaboration and maximization of resources.
- Look for areas where expertise can be shared.

Existing resources to address health needs

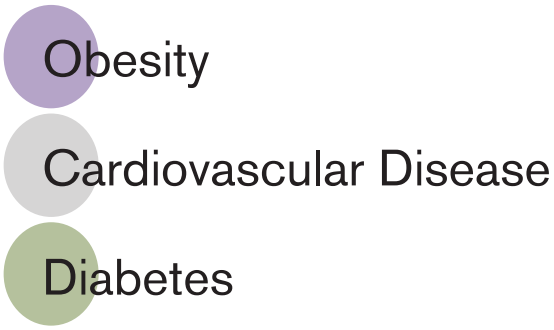
Part of the assessment process included gathering input on community resources potentially available to address the significant health needs identified through the CHNA. Beaumont assembled information on community resources. Additionally, qualitative assessment participants identified community resources that may assist in addressing the health needs identified for their community.

A description of these resources is in ***Appendix H***.

Overview, methodology and approach

Evaluation of prior CHNA implementation strategies

As part of the current assessment, Beaumont conducted an evaluation of the implementation strategies adopted by hospital facilities as part of the 2016 CHNA. In 2016, Beaumont chose to address the following identified needs:



Implementation strategies were put into place in 2017 to address the above needs. Those strategies have been evaluated as to effectiveness and impact. Details for that evaluation can be found in ***Appendix I*** with the report of interventions and activities outlined in the implementation strategy drafted following the 2016 assessment.

Demographic and socioeconomic summary

According to population statistics, the overall Beaumont community is expected to grow just 0.3% in five years. This is slightly lower than the projected growth for the state and much lower than the United States overall (3.5%). The median age is older than both the state and national medians. Median household income for the overall community is higher than both benchmarks; however, there is significant income disparity within the community served. The overall community has a higher proportion of Medicaid beneficiaries than the state benchmark and an uninsured rate that is more than half of the national rate.

Demographic and socioeconomic comparison: community served and state/U.S. benchmarks

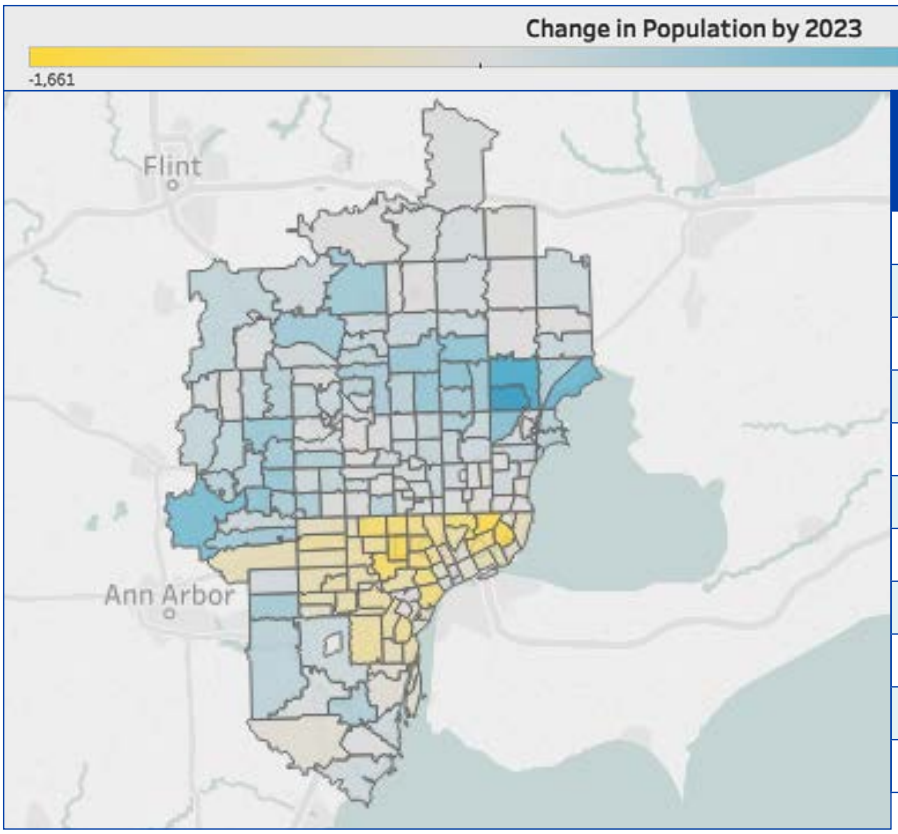
Geography		Benchmarks		Community Served
		United States	Michigan	Beaumont Health
Total current population		326,533,070	9,941,545	3,937,511
5 Yr projected population change		3.5%	0.6%	0.3%
Median age		38.3	40.0	40.9
Population 0-17		22.6%	21.7%	22.2%
Population 65+		15.9%	17.0%	16.1%
Women age 15-44		19.6%	18.9%	19.0%
Non-white population		30.0%	22.4%	33.4%
Hispanic population		18.2%	5.2%	4.7%
Insurance Coverage	Uninsured	9.4%	3.9%	3.9%
	Medicaid	19.0%	24.4%	24.6%
	Private Market	9.6%	8.2%	8.2%
	Medicare	16.1%	17.5%	17.5%
	Employer	45.9%	46.0%	45.9%
Median household income		$60,315	$55,727	$66,984
Limited English		26.2%	14.5%	18.9%
No high school diploma		7.4%	6.9%	7.5%
Unemployed		6.8%	7.8%	8.4%

Source: IBM Watson Health / Claritas, 2018; US Census Bureau 2017 (U.S. Median Income)

Beaumont Community Health Needs Assessment

The population of the community served is expected to grow 0.3% by 2023, an increase of just under 10,000 people. The ZIP codes expected to experience the most growth in five years are:

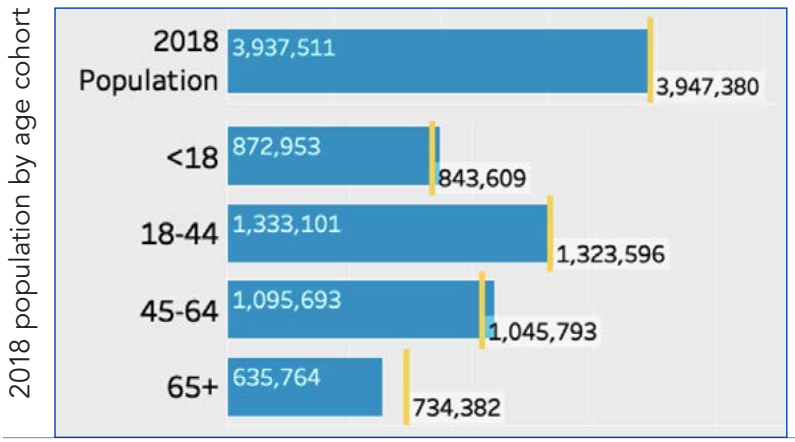
2018-2023 Total population projected change by ZIP code

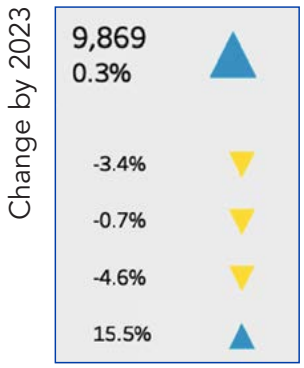


Zip Codes	Growth in five years (# of people)
48044 Macomb	**3,235**
48042 Macomb	**2,419**
48047 New Baltimore	**1,777**
48178 South Lyon	**1,573**
48038 Clinton Township	**1,306**
48316 Utica	**1,226**
48094 Washington	**1,193**
48374 Novi	**1,182**
48307 Rochester	**1,071**
48306 Rochester	**1,020**
48377 Novi	**1,012**

Source: IBM Watson Health / Claritas, 2018

The community's population skews slightly younger with 33.9% of the population ages 18-44 and 22.2% under age 18. The largest cohort (18-44) is expected to decrease by 9,505 people by 2023. The age 65 plus cohort is the smallest group (16.1% of the total population) but is the only cohort expected to grow. In fact, it is expected to experience a similar growth rate (15.5%) as Michigan and the nation over the next five years, adding 98,618 seniors to the community. Growth in the senior population will likely contribute to increased use of services as the population continues to age.



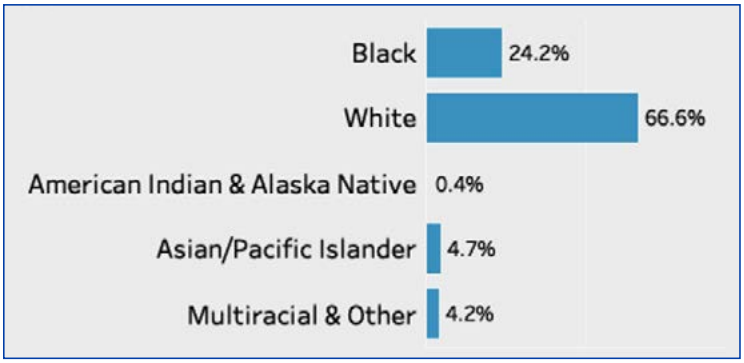


Population distribution by age

Source:
IBM Watson Health / Claritas, 2018

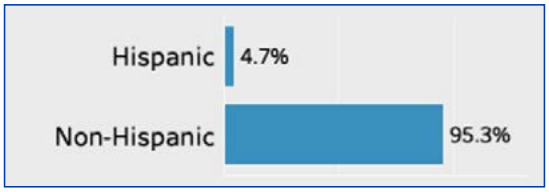
Population statistics are analyzed by race and Hispanic ethnicity. The community overall is predominately racially white (66.6%) and black (24.2%); both of these populations are projected to decline slightly over the next five years. All other racial groups are expected to increase from 9% of the total population to 16% (47,104 people) by 2023, primarily driven by Asian/Pacific Islanders and multi-racial populations. The expected growth rate of the Hispanic population (all races) is over 17,000 people (9.3%) by 2023, while the non-Hispanic population (all races) is expected to decrease by over 7,000 people (-0.2%) by 2023.

2018 Population by race

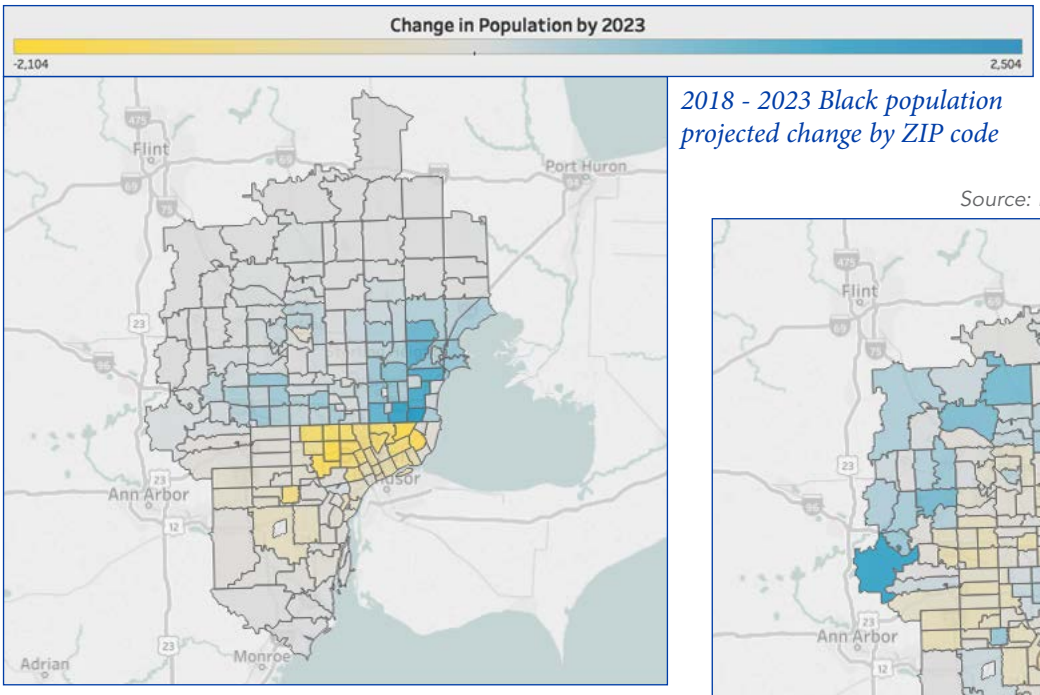


Source: IBM Watson Health / Claritas, 2018

2018 Population by ethnicity

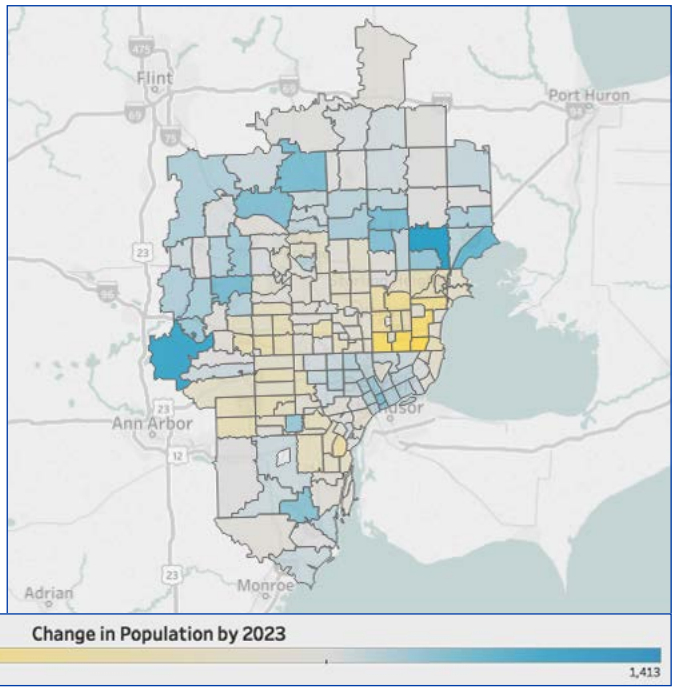


Source: IBM Watson Health / Claritas, 2018



2018 - 2023 Black population projected change by ZIP code

Source: IBM Watson Health / Claritas, 2018



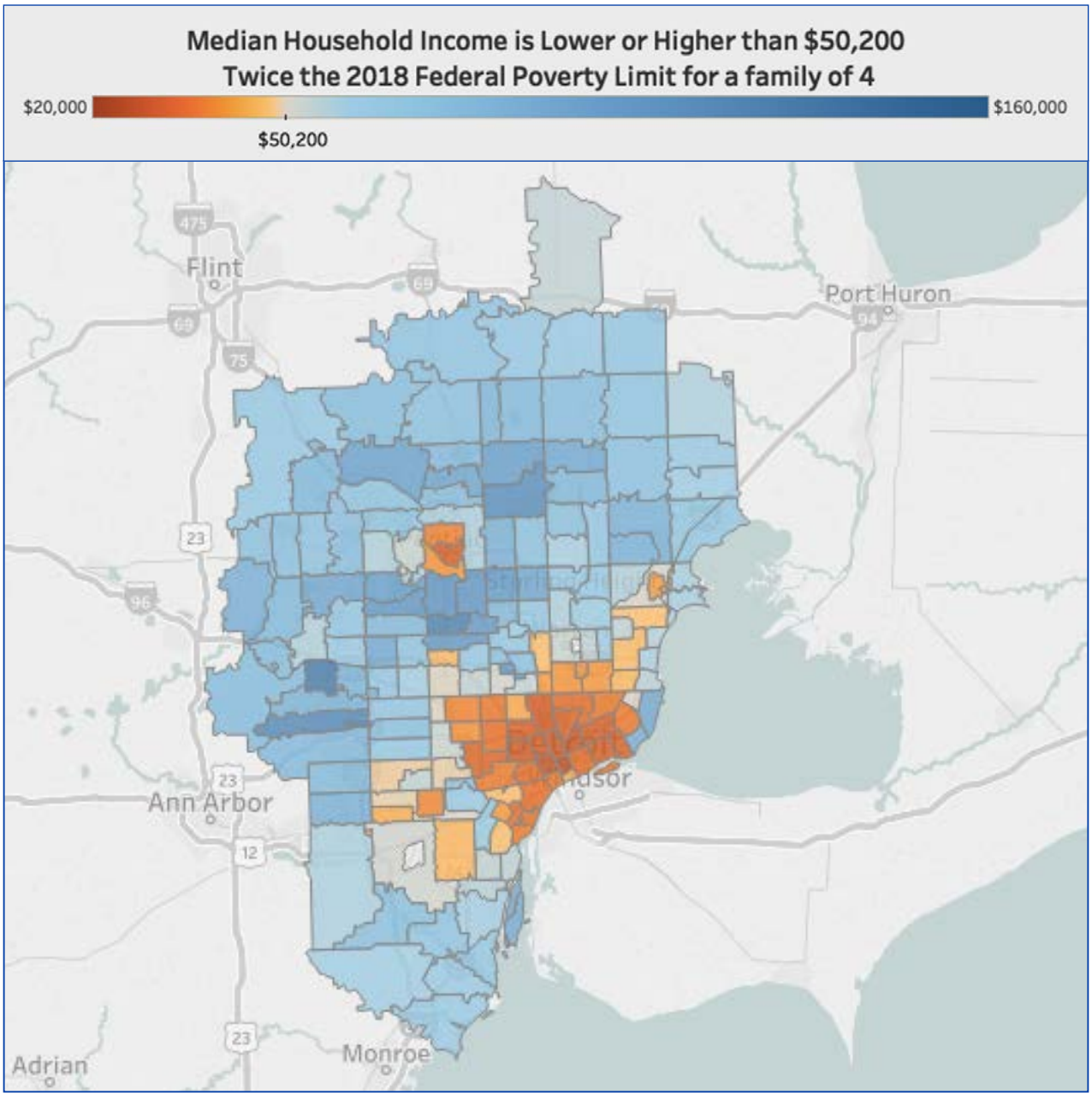
2018 - 2023 White population projected change by ZIP code

Source: IBM Watson Health / Claritas, 2018

Beaumont Community Health Needs Assessment

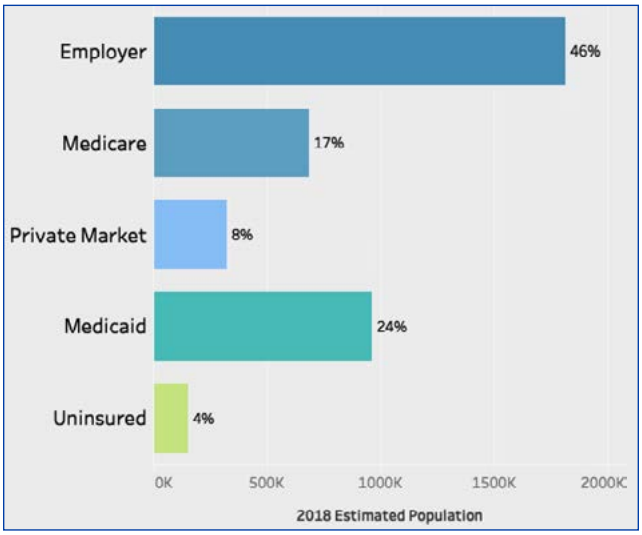
The 2018 median household income for the United States is $62,175 and $55,727 for Michigan. The median household income for the ZIP codes within this community ranges from $18,623 for ZIP code 48201 in Detroit to $161,301 for ZIP code 48374 in Novi. There are 56 ZIP codes with median household incomes less than $50,200, twice the 2018 Federal Poverty Limit for a family of four. Of these ZIP codes, 41 are in Wayne County, eight in Macomb County and seven in Oakland County.

2018 Median household income by ZIP code



Source: IBM Watson Health / Claritas, 2018

2018 Estimated distribution of covered lives by insurance category



Source: IBM Watson Health / Claritas, 2018

A significant portion of the population (46%) is insured through employer sponsored health coverage, followed by those with Medicaid (24%) and Medicare (17%) insurance coverage.

The remainder of the population are divided between private market (the purchasers of coverage directly or through the health insurance marketplace) at 8%, and uninsured at 4% of the total population.

The community includes 70 health professional shortage areas and 23 medically underserved areas as designated by the U.S. Department of Health and Human Services Health Resources Services Administration.[2] ***Appendix J*** includes the details on each of these designations.

Health professional shortage areas and medically underserved areas and populations

	Health professional shortage areas				Medically underserved area/population
Beaumont Health	*Dental health*	*Mental health*	*Primary care*	Grand total	MUA/P
Macomb County	2	2	3	7	2
Oakland County	1	3	3	7	1
Wayne County	16	20	20	56	20
Total	**19**	**25**	**26**	**70**	**23**

Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018

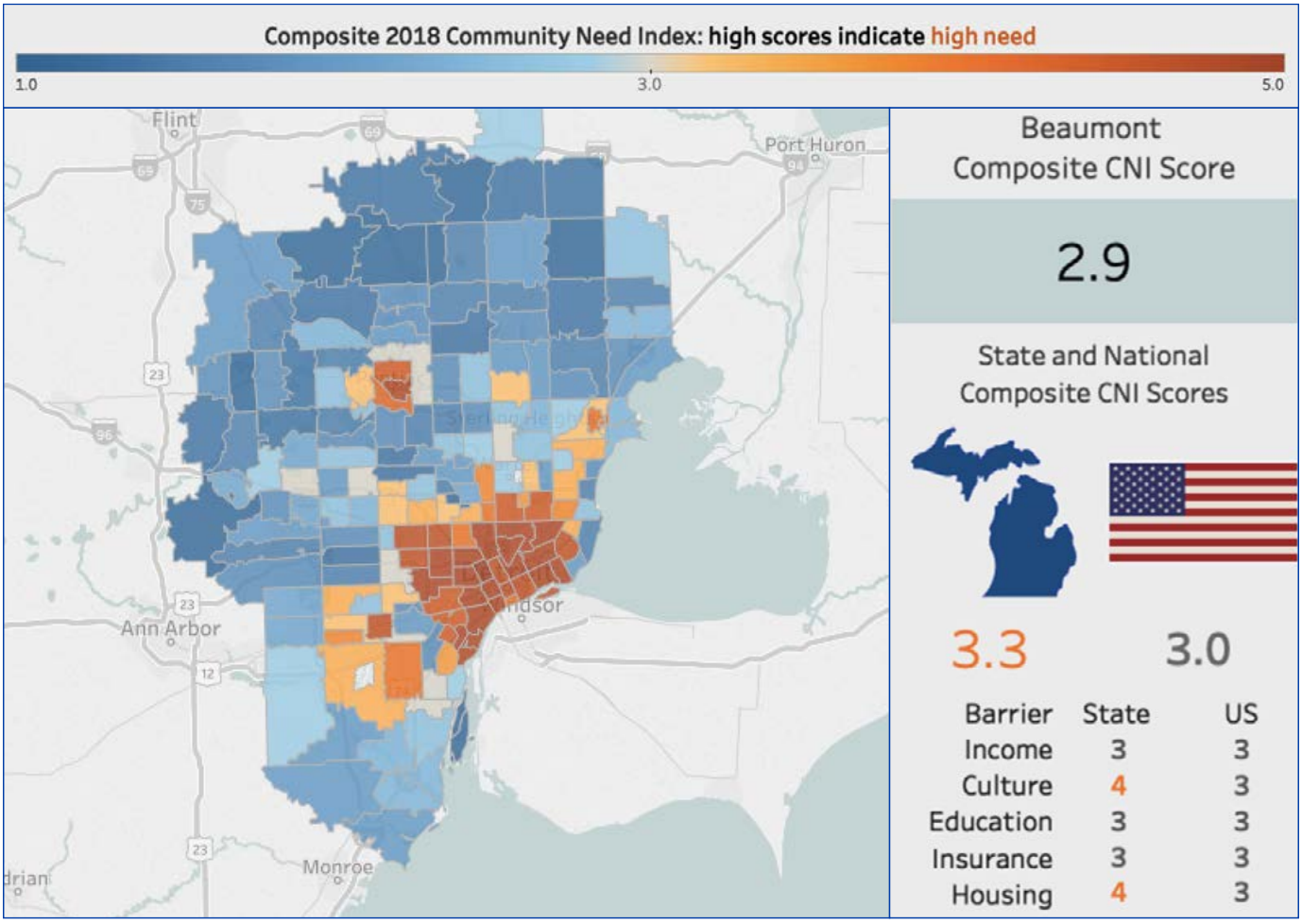
[2] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018

Beaumont Community Health Needs Assessment

The IBM Watson Health Community Need Index (CNI) is a statistical approach to identifying areas within a community where health disparities may exist. The CNI accounts for vital socio-economic 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 composite CNI score for the community served is 2.9, just under the CNI national benchmark of 3.0. However, there is disparity across the overall area. In portions of the community (Detroit, Pontiac, Ecorse, Hamtramck, Highland Park, River Rouge) the composite CNI score is greater than 4.5, indicating potentially more significant health needs among those populations. The combined composite CNI score for Detroit's 25 ZIP codes is 4.7. Factors driving the high CNI scores included low-income/poverty, language barriers and low levels of home ownership.

2018 Community need index by ZIP code



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).

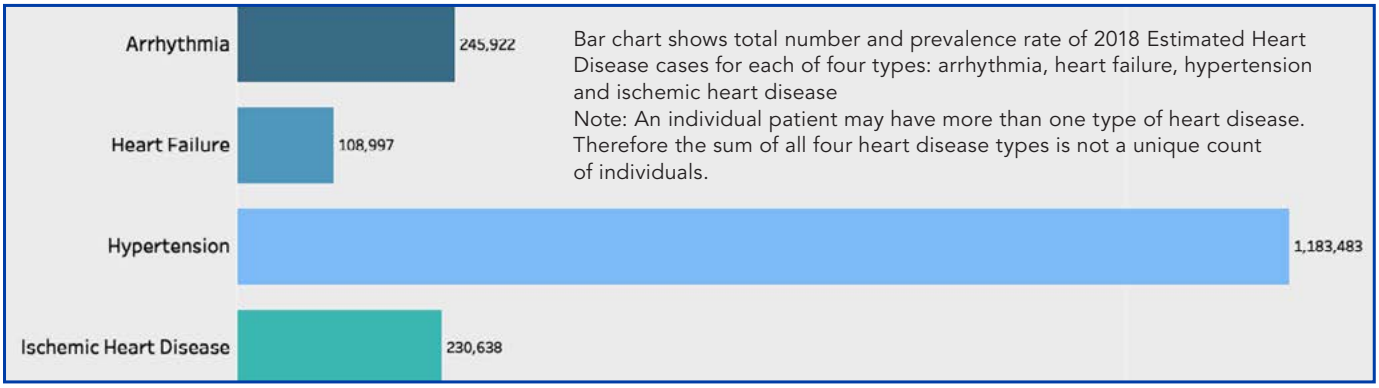
Source: IBM Watson Health / Claritas, 2018

IBM Watson Health community data

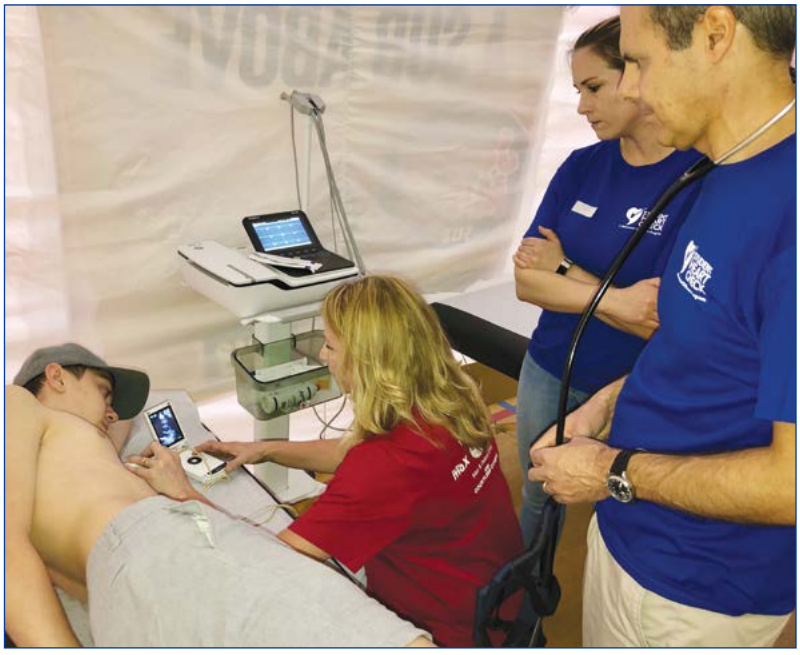
IBM Watson Health supplemented the publicly available data and population statistics with estimates of localized disease prevalence of heart disease and cancer as well as Emergency Department visit estimates.

IBM Watson Health Heart Disease Estimates identified hypertension as the most prevalent heart disease diagnosis in the community; there are over 1 million estimated cases in the community overall. The 48180 ZIP code of Taylor has the most estimated cases of each heart disease type, likely driven in part by population size. The 48304 ZIP code of Bloomfield Hills has the highest estimated prevalence rates for arrhythmia (96 cases per 1,000 population), heart failure (40 cases per 1,000 population) and ischemic heart disease (97 cases per 1,000 population), while 48138 ZIP code of Grosse Ile has the highest estimated prevalence rates for hypertension (379 cases per 1,000 population).

2018 Estimated heart disease cases



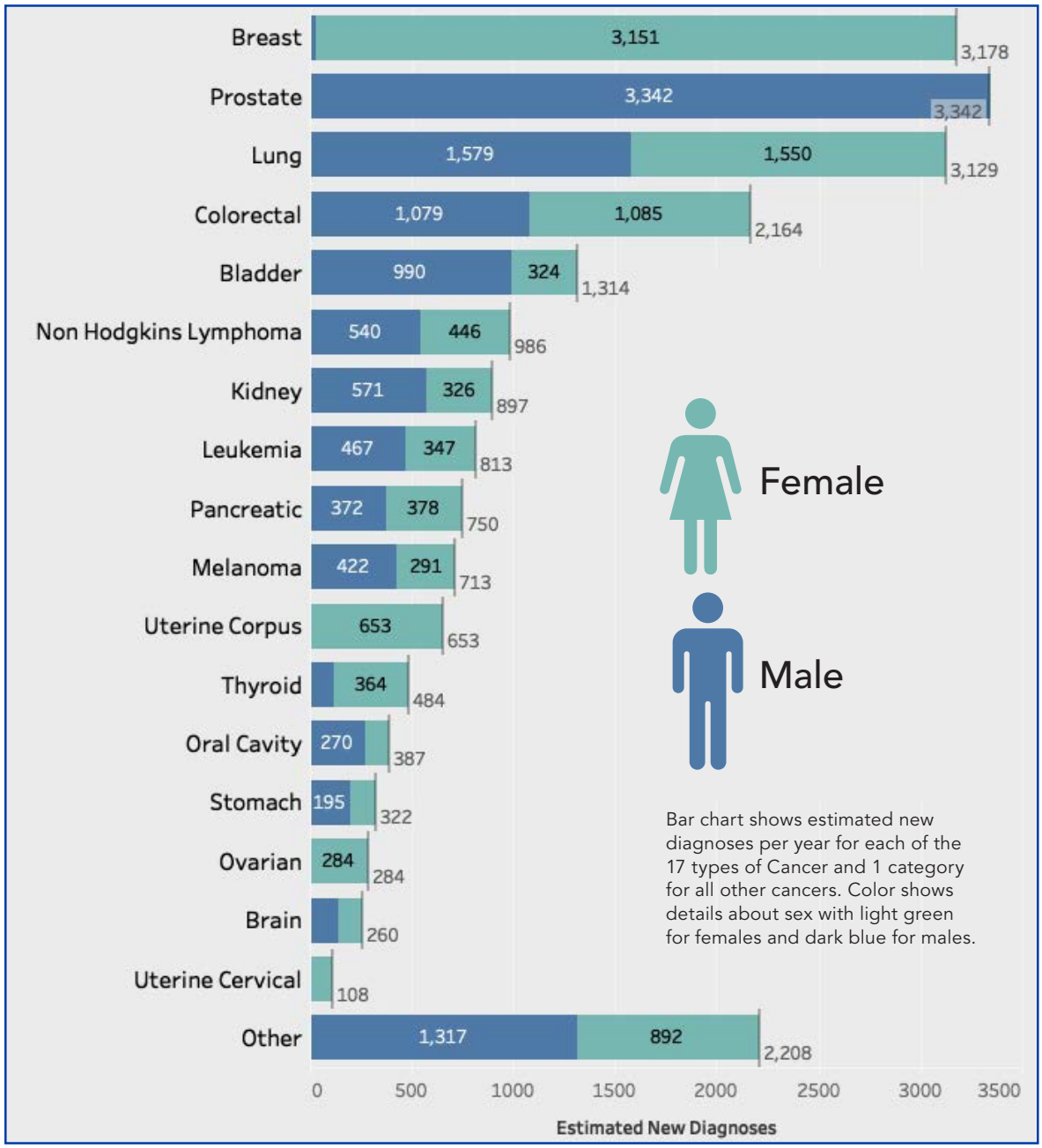
Source: IBM Watson Health, 2018



Beaumont Community Health Needs Assessment

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

2018 Estimated new cancer cases



Source: IBM Watson Health, 2018

Estimated cancer cases and projected five-year change by type

Cancer type	2018 Estimated new cases	2023 Estimated new cases	5-year growth (%)
Bladder	1,314	1,457	10.9%
Brain	260	270	3.9%
Breast	3,178	3,344	5.2%
Colorectal	2,164	2,024	-6.5%
Kidney	897	972	8.4%
Leukemia	813	879	8.1%
Lung	3,129	3,319	6.1%
Melanoma	713	790	10.8%
Non-Hodgkin's lymphoma	986	1,067	8.1%
Oral Cavity	387	416	7.5%
Ovarian	284	295	4.0%
Pancreatic	750	831	10.9%
Prostate	3,342	3,325	-0.5%
Stomach	322	338	4.8%
Thyroid	484	529	9.4%
Uterine - cervical	108	104	-3.7%
Uterine - corpus	653	700	7.2%
All other	2,208	2,390	8.2%
Grand total	**21,991**	**23,049**	**4.8%**

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

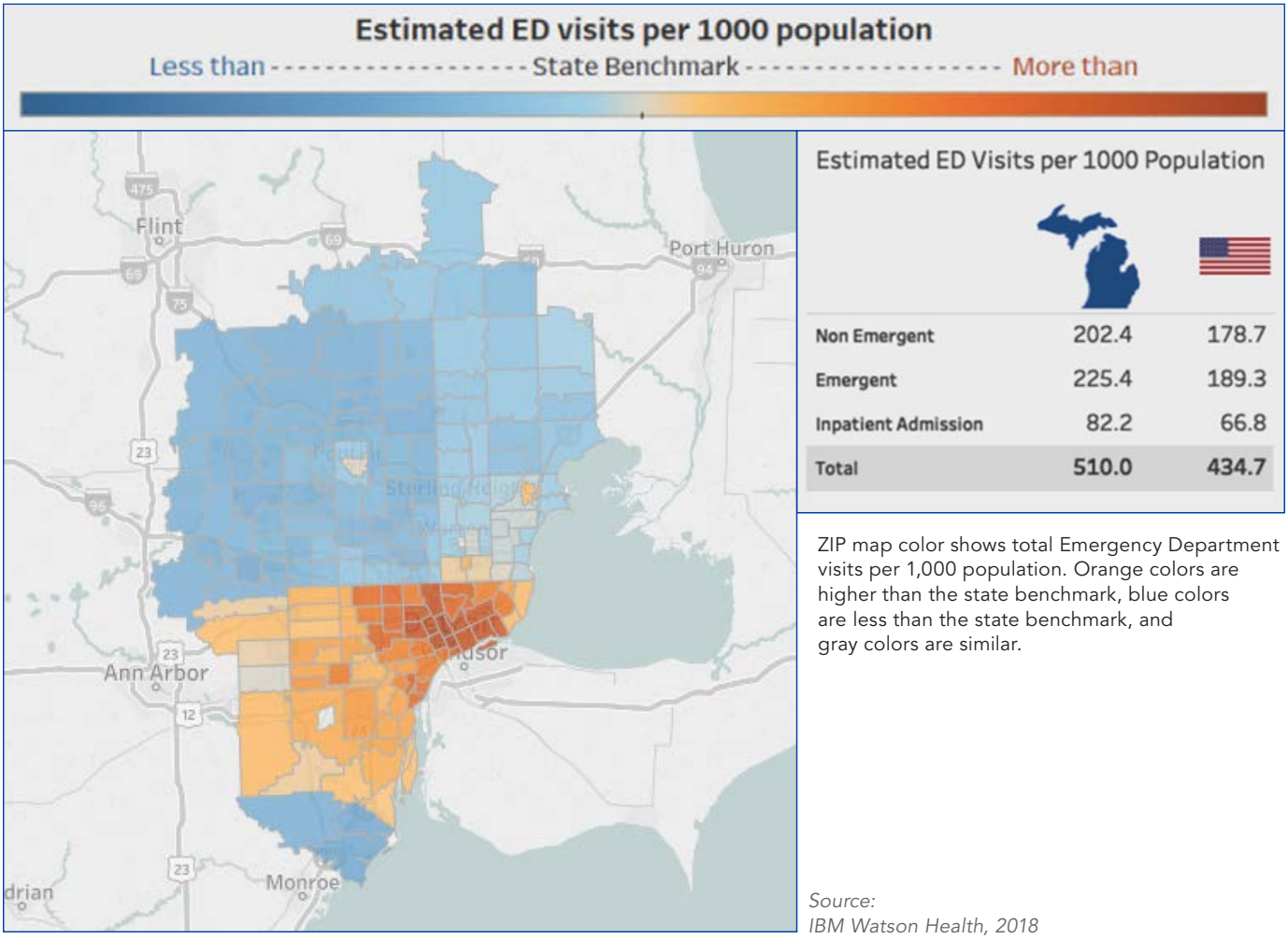
Beaumont Community Health Needs Assessment

Based on population characteristics and regional utilization rates, IBM Watson Health projects all Emergency Department (ED) visits in this community to increase by just 0.5% over the next five years. The highest estimated ED use rates are in the ZIP codes of Detroit: 923.6 to 725.2 ED visits per 1,000 residents compared to the state benchmark of 510.0 visits and the U.S. benchmark of 435.0 visits per 1,000.

These ED visits consist of three main types: those resulting in an inpatient admission, emergent visits treated and released and non-emergent visits that are lower acuity. Non-emergent 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 estimated non-emergent visits to decrease by an average of 2.7% over the next five years in this community.

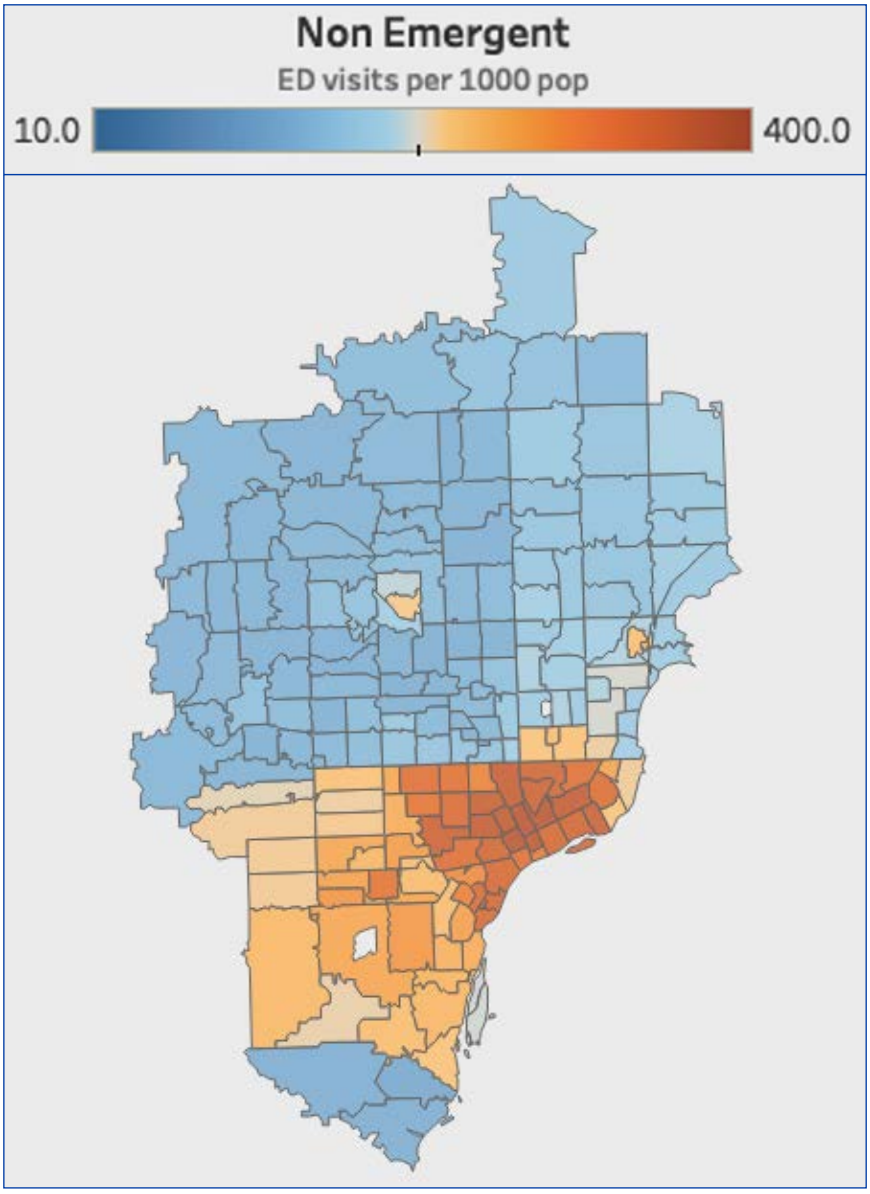
Total estimated 2018 Emergency Department visit rate



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.

Source:
IBM Watson Health, 2018

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



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

Non-emergent estimated 2018 Emergency Department visits by ZIP code

ZIP map color show total Emergency Department visits per 1,000 population by non-emergent status. Orange colors are higher than the state benchmark (see table at right), 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.

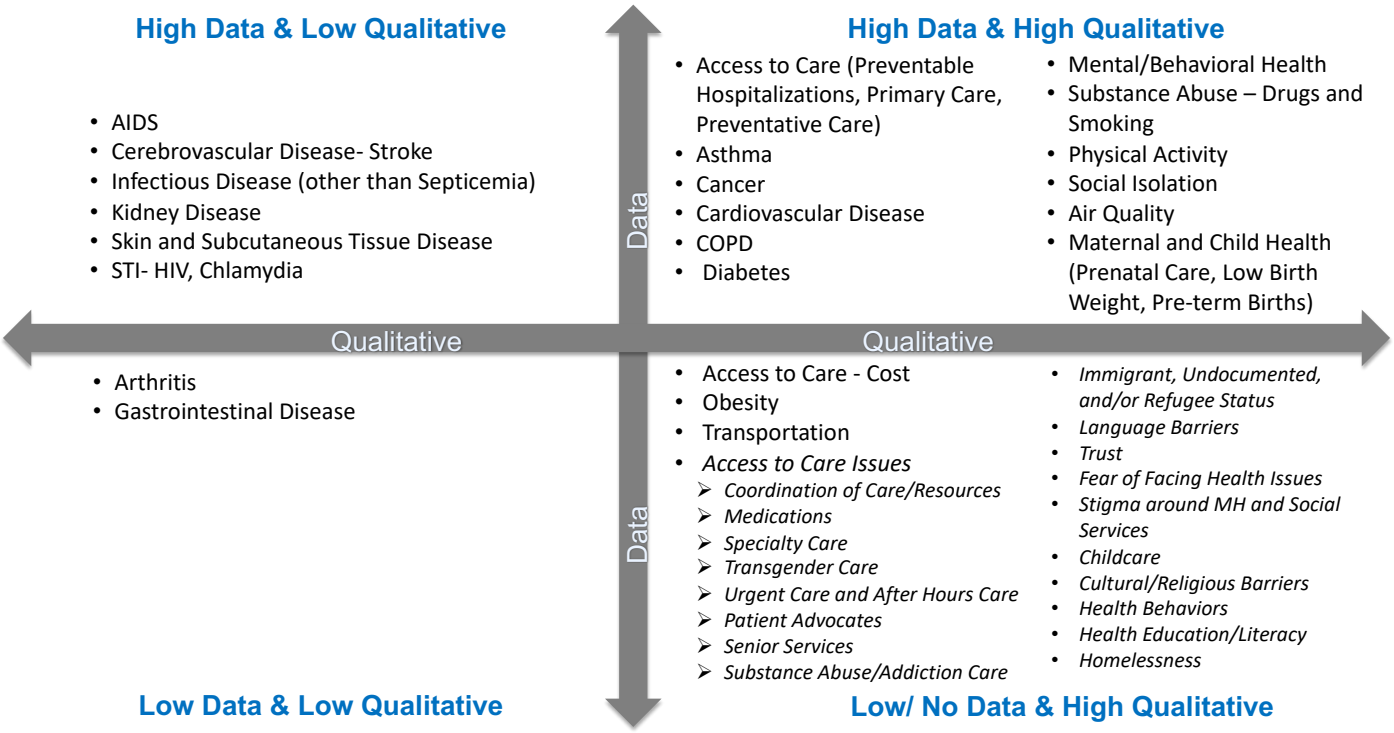
Source:
IBM Watson Health, 2018

Beaumont Community Health Needs Assessment

Beaumont Health prioritized significant health needs

The health needs matrix, developed as part of the assessment (see Methodology for defining community needs section) shows the convergence of needs identified in the qualitative data (interview, focus group and survey feedback) and quantitative data (health indicators). The top health needs for the Beaumont community are defined in the health needs matrix below.

Community health needs matrix



Note: Lower right quadrant items in italics do not have quantitative data indicators available

Source: IBM Watson Health, 2019

Through the prioritization process, the significant health needs for this community were identified, reviewed and prioritized (see Approach to identify and prioritize significant health needs section). The resulting prioritized health needs for the Beaumont community are provided in the table below. The health indicator values for the prioritized significant needs are located in ***Appendix K***.

Prioritized significant community health needs

Priority Rank	Health need
1	Cardiovascular disease
2	Diabetes
3	Obesity
4	Mental/behavioral health
5	Substance abuse
6	Cancer
6	COPD

Priority Rank	Health need
7	Maternal and child health
8	Physical activity
9	Access to care
10	Asthma
11	Social isolation
12	Air quality

Source: IBM Watson Health, 2019

Note: Needs with the same priority rank received the same overall score in the prioritization process.

Health needs to be addressed by Beaumont Health

As part of the prioritization session, participants were asked to collectively determine which of the prioritized needs Beaumont would address through their CHNA implementation strategies (see Approach to identify and prioritize significant health needs section).

After a robust discussion, the group chose to address the top four needs from the prioritization process: cardiovascular disease, diabetes, obesity and mental health. The four needs were then consolidated into two priority need areas. The resulting community health needs to be addressed by Beaumont through CHNA implementation strategies include:

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

2019 CHNA implementation strategy

In addition to identifying and prioritizing significant community health needs through the CHNA process, the Patient Protection and Affordable Care Act requires creating and adopting an implementation strategy. An implementation strategy is a written plan addressing each of the community health needs identified through the CHNA. The implementation strategy must also include a list of the prioritized needs each hospital plans to address and the rationale for not addressing the other identified health needs.

The CHNA process identified significant health needs for the Beaumont community (see Prioritized significant community health needs section). Significant health needs were identified via the approach outlined in the CHNA overview, methodology and approach section of this report. Through the prioritization process, two significant needs were selected to be addressed via the Beaumont Health CHNA implementation strategy:

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

The remaining significant health needs were not chosen for a combination of the following reasons:

- The need was not well-aligned with organizational strengths.
- There are not enough existing organizational resources to adequately address the need.
- Implementation efforts would not impact as many community residents (magnitude) as those that were chosen.
- The chosen needs more significantly impact vulnerable populations.

While each of the significant health needs identified through the Community Health Needs Assessment process is important, and many are currently addressed by existing programs and initiatives of Beaumont or a Beaumont partner organization, allocating significant resources to the two priority needs above prevents the inclusion of all health needs in the Beaumont Health CHNA implementation strategy.

Key approaches of the implementation strategy

Beaumont is committed to engaging in transformative relationships with local communities to address the social determinants of health and to increase access to high-quality health care. We recognize good health extends beyond the doctor's office and hospital. Our work in the community takes an evidence-based prevention approach with key elements that include:

- Building and sustaining multi-sector community coalitions: partnering with leaders of local and state government, public health, community leaders, schools, community-based non-profits, faith-based organizations and community residents to achieve measurable, sustainable improvements by using a collective impact framework to improve the health and well-being of the diverse communities we serve. These multi-sector coalitions engage in mutually reinforcing activities to build and strengthen partnerships that address the social determinants of health and work towards solutions.
- Addressing social determinants of health and improving access to care for vulnerable populations.
- Working with community partners to supplement CHNA initiatives through grants, programs and policies.
- Partnering with Federally Qualified Health Centers and free clinics to provide support to the underinsured and uninsured within the economically disadvantaged and medically underserved populations of Beaumont.
- Partnering with Public Health departments to align efforts, resources and programs.
- Consideration of sponsorships to organizations for events or activities that address the key health priorities of chronic disease prevention and management (cardiovascular disease, diabetes, obesity) and mental health.

The hospital specific implementation strategies for the chosen health needs are outlined in each of the Beaumont hospital subsections of this report. Over the next three years, each Beaumont hospital will execute its implementation strategy, which will be evaluated and updated on an annual basis.

Description of the health needs to be addressed by Beaumont Health

Chronic disease prevention and management

Cardiovascular disease

Cardiovascular or heart disease is a category of diseases and conditions that include coronary artery disease, high blood pressure, cardiac arrest, congestive heart failure, arrhythmia, peripheral artery disease, stroke and congenital heart disease. Cardiovascular disease is the leading cause of death in America.[3] More than 28.2 million Americans (11.5% of adults) are currently living with a cardiovascular disease diagnosis.[4] Associated conditions include obesity, diabetes and hypertension, along with other co-morbid conditions. Within Beaumont's service area, two of three counties, Wayne (144 per 10,000) and Macomb (127 per 10,000), have higher rates of cardiovascular discharges than the state benchmark of 117 per 10,000.[5] National and community organizations often allocate considerable resources towards prevention and treatment of cardiovascular disease due to the major impact on overall health.

Patients diagnosed with cardiovascular disease may have more than one heart disease condition, often complicating treatment. The rate of heart disease-associated deaths in Beaumont's service area is relatively consistent with state and national rates for Macomb and Oakland counties; however, Wayne County has a higher heart disease death rate than the state and national benchmarks. In 2015-2017, heart disease deaths for the state were 197.9 per 100,000. Wayne County reported rates at 257.4 per 100,000, Oakland County reported rates at 184.5 per 100,000 and Macomb County reported 196.1 deaths per 100,000.[6] Oakland and Macomb counties' death rates due to heart disease were between 1-7% lower than the statewide rate. Wayne County was 30% higher than the state's death rate benchmark.[7] Heart attack rates in the city of Detroit were 12% higher than the state,[8] while hypertension in the fee for service Medicare population was 9-10% higher in Wayne and Macomb counties compared to the state.[9]

Each year, IBM Watson Health produces a proprietary heart disease estimates dataset, which predicts the prevalence of heart disease across all ZIP codes in the United States. IBM Watson Health uses public and private claims data, as well as epidemiological data from the National Health and Nutrition Examination Survey to build local estimates of heart disease prevalence. In 2018, four major heart disease types were estimated for the Beaumont service area: arrhythmia, heart failure, ischemic heart disease and hypertension. According to the estimates, arrhythmia, heart failure and hypertension were more prevalent in women than men, while ischemic heart disease was more prevalent in men at 60% versus 40% in women.[10]

[3] *http://www.cdc.gov/heartdisease/facts.htm*
[4] *https://www.cdc.gov/nchs/fastats/heart-disease.htm*
[5] *http://www.mdch.state.mi.us/osr/CHI/hospdx/frame.html*
[6] *https://www.mdch.state.mi.us/pha/osr/chi/births14/frameBxChar.html*
[7] *https://www.mdch.state.mi.us/pha/osr/chi/births14/frameBxChar.html*
[8] *https://www.michigan.gov/documents/mdhhs/2014-2016_MiBRFSS_Reg___LHD_Tables_608878_7.pdf*
[9] *https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/CC_Main.html*
[10] *IBM Watson Health, 2018*

Description of the health needs to be addressed by Beaumont Health

Chronic disease prevention and management

Diabetes

Diabetes is a condition in which the body does not properly process food for use as energy. Most of the food we consume is converted into glucose, or sugar. The pancreas produces a hormone called insulin to help glucose enter the cells in our bodies. When you have diabetes, your body either does not produce enough insulin or cannot use its own insulin as effectively as it should. There are several types of diabetes so treatments along with management vary by diagnosis. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, stroke and lower-extremity amputations.

Diabetes is a national crisis affecting more than 30 million Americans or 9.4% of the population.[11] Of these 30 million people, approximately 7 million are undiagnosed and unaware that they have the disease. Another 84 million have pre-diabetes or high blood sugar levels that are not yet elevated enough to cause Type 2 diabetes. In 2015, diabetes was the seventh leading cause of death in the United States.[12] In the last 20 years, the number of adults diagnosed with diabetes has more than tripled as the U.S. population has aged and become more overweight.[13]

The Centers for Disease Control and Prevention support national, community and faith organizations; state and local health departments; tribes and other partners to prevent or delay Type 2 diabetes, improve diabetes care and self-management and prevent or reduce the severity of diabetes complications. Diabetes not only has significant health risks; the economic impact of diabetes is extraordinary.[14] In 2012, the estimated cost of diagnosed diabetes in the U.S. was $245 billion. Average medical expenditures attributed to diabetes care and management was $7,900 per year. The cost of diabetes medication and supplies is often a struggle for people with the disease.[15]

Approximately 10.8% of Michigan's population has a diabetes diagnosis. The city of Detroit and its suburbs have a higher prevalence of diabetes compared to the state (13.1% and 11.3% respectively). Macomb and Oakland counties' diabetes prevalence are lower than the state value with 10.6% of Macomb residents and 9.2% of Oakland residents living with diabetes.[16]

Hospitalization discharge rates related to diabetes are significant across the country. Causes are multi-dimensional and related to compliance with dietary recommendations, education, lack of resources and cost of medications. In Michigan, approximately 20.4 discharges per 10,000 residents are related to diabetes. In the Beaumont service area, Wayne County has the highest discharge rate at 34.1 per 10,000, followed by Macomb at 20.5 and Oakland at 17.5.[17]

Wayne County has the highest diabetes-related death rate in the Beaumont service area with 71 deaths per 100,000 residents. Macomb and Oakland counties' death rates are both lower than the state benchmark of 67.5 deaths per 100,000 (62.6 and 52.4 respectively).[18] Communities with high populations of diabetic and pre-diabetic residents must address the gaps in care effectively and efficiently, as the disease poses a significant burden on overall health. Trending and tracking both prevalence and complication rates of diabetes will position organizations to best provide care for the community at large. Development of programs focusing on how to effectively manage diabetes, education on prevention, and overall health and nutrition education are essential.

[11] *https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf*
[12] *https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf*
[13] *https://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm*
[14] *https://gis.cdc.gov/grasp/diabetes/diabetesatlas.html*
[15] *American Diabetes Association. Economic costs of diabetes in the U.S. in 2012. Diabetes Care. 2013;36(4):1033–1046*
[16] *2014-2016, Michigan BRFS Regional & Local Health Department Estimates*
[17] *http://www.mdch.state.mi.us/osr/CHI/hospdx/frame.html*
[18] *https://www.mdch.state.mi.us/pha/osr/chi/births14/frameBxChar.html*

Description of the health needs to be addressed by Beaumont Health

Chronic disease prevention and management

Obesity

Obesity is a complex medical condition that can have a significant impact on physical and emotional well-being. According to the CDC, weight that is higher than what is considered a healthy weight for a given height is described as overweight or obese. The prevalence of obesity is increasing in the United States. From 2015-2016, 93 million people were affected. Recent trends in the prevalence of obesity in America are equally concerning. According to the National Institutes of Health, obesity rates in the United States have more than doubled over the last 50 years.[19] In 2015-2016, the prevalence of obesity was 39.8%, affecting 93.3 million U.S adults, increasing from 34.9%, or 78.6 million, in 2014.[20]

The prevalence of obesity in Michigan is 31.3% as compared to the U.S. prevalence of 28.4%. Wayne and Macomb counties had respectively higher rates of obesity at 33.1 and 32.5 percent compared to the state and U.S. benchmarks. Oakland County at 26.4% was lower than both the state and U.S. prevalence.[21] Medical costs for people with obesity are on average $1,429 higher than those of normal weight.[22]

Obesity-related conditions add to the complexity and morbidity of this disease. Associated conditions include heart disease, stroke, Type 2 diabetes and certain types of cancer, which are attributable to preventable, premature death. Obesity and other related conditions are more prevalent among certain socio-economic groups. The association between obesity and income or educational level is complex and differs by sex and race/ethnicity. College-educated persons have a lower incidence of obesity than those who are less educated.[23]

Experts attribute increases in obesity to lower levels of physical activity and poor choices related to food and nutrition. Behavioral statistics on physical activity are consistent with Michigan's obesity rates. The percentage of adults reporting no leisure-time physical activity in Michigan is 23.2% compared to the national prevalence rate of 23%.[24] Wayne County reports the area's highest rate of adults with limited physical activity (26%) and the highest prevalence of adult obesity (33%). Macomb County's rate of adults with limited physical activity is slightly higher than the state rate at 25.5%. Oakland County reports the lowest rates of limited physical activity (19%) and the lowest prevalence of obese adults (26%).[25]

Southeast Michigan reports higher prevalence rates of children with obesity. Childhood obesity is defined as a body mass index at or above the 120% of the 95th percentile for children of the same age and sex.[26] The Centers for Disease Control and Prevention reports childhood obesity rates at 14.8% nationally and 16.7% for the state of Michigan.[27]

Education, awareness, and addressing the benefits of living a healthy lifestyle are key to tackling the rising obesity epidemic in the country. Communities benefit from a targeted approach to obesity by offering healthy alternatives that encourage active lifestyles, preventive health care, community exercise opportunities and healthy food options.

Statistics related to access to healthy food options and the ability to make sound nutrition decisions are mixed in Southeast Michigan. Lack of adequate access to food is reported by 11% of Americans.[28] The percent of Michigan residents who are food insecure is slightly higher at 15%. Oakland, Macomb and Wayne counties all report a higher prevalence of food insecurity than the U.S. benchmark. Respectively, 13.4% and 12.5% of the population in Macomb and Oakland counties lack adequate access to food. Wayne County has the highest prevalence of food insecurity with 21% of the population reporting inadequate access to food.[29]

[19] *hhttp://www.heart.org/HEARTORG/HealthyLiving/WeightManagement/Obesity/Understanding-the-American-Obesity-Epidemic_UCM_461650_Article.jsp#.V4WLDk3fMkI*
[20] *https://www.cdc.gov/obesity/data/adult.html*
[21] *http://www.countyhealthrankings.org/app/michigan/2018/overview*
[22] *https://www.cdc.gov/obesity/adult/defining.html*
[23] *https://www.cdc.gov/obesity/data/adult.html*
[24] *http://www.countyhealthrankings.org/*
[25] *http://www.countyhealthrankings.org/dhood.html*
[26] *http://www.countyhealthrankings.org/dhood.html*
[27] *https://nccd.cdc.gov/youthonline/App/Results.aspx*
[28] *https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx*
[29] *Percentage of population who are low-income and do not live close to a grocery store*

Description of the health needs to be addressed by Beaumont Health

Chronic disease prevention and management

Mental Health

Data on mental health diagnoses for the overall population can be difficult to gather. In some instances, only information about a subset of the population is available. Results for specific populations may indicate a need that can also be used as a proxy for need across the greater population as it relates to the prevalence of mental health conditions within the community.

In the Beaumont Health community, the reported number of poor mental health days per month in Wayne County was 4.6 days, followed by 4.2 days in Macomb and 3.6 days in Oakland County. The state of Michigan reported 4.4 days and the national benchmark was 3.8 days.[30] The most significant drivers for mental health issues in Wayne County were schizophrenia, drug abuse and depression among high school students.[31] Schizophrenia is ranked 18 of 247 indictors for Wayne County, indicating a greater relative need and potentially larger vulnerable population. The Wayne County value of 18.1 per 10,000 is 72% higher than the state of Michigan benchmark of 10.5 per 10,000 population.[32] Substance abuse in the Medicare population is an additional area of concern in Wayne County. Among the Medicare population living in Wayne County, almost 4% have documented substance abuse issues. This value is 66% higher than the state benchmark of 2.1%.[33]

Aging populations and those economically challenged will likely contribute to increased need and utilization of health care services. Over time, the community must be able to provide adequate services to care for the aging population, including services related to mental health. Seniors with either life-long mental health diagnoses or recent onset changes face a multitude of challenges, including access to specialized services, insurance and transportation. Individuals with long-term mental health issues who have had access to therapy and medications may now face additional concerns as an aging senior. Isolation for adults 65 and older who live alone is a growing challenge for communities across the nation, which is compounded by serious mental health concerns. Macomb, Wayne and Oakland counties have on average 20-43% less social and membership associations compared to the state of Michigan, which may in turn increase the risk of social isolation in the community.[34] Integrated social services to engage, support and positively challenge their 65 and older populations may improve the overall health and well-being of the community.

Compromised mental health has wide-reaching consequences for both individuals and society. The direct costs of mental health care can be estimated much the way we estimate other health care costs. The Agency for Healthcare Research and Quality cites a cost of $57.5 billion in 2006 for mental health care in the U.S., equivalent to the cost of cancer care.[35]

But unlike cancer, much of the economic burden of mental illness is not the cost of care but the loss of income due to unemployment, expenses for social supports and a range of indirect costs due to a chronic disability that often begins early in life.

In 1999, the U.S. Surgeon General labeled stigma as perhaps the biggest barrier to mental health care; this stigma exhibits particularly in a phenomenon known as social distancing, whereby people with mental issues are more isolated from others.[36] According to the World Health Organization and the World Economic Forum, mental illness represents the biggest economic burden of any health issue in the world, costing $2.5 trillion in 2010; this burden is projected to cost $6 trillion by 2030 with two-thirds of these costs attributed to disability and loss of work.[37]

[30] *http://www.countyhealthrankings.org/app/michigan/2018/overview*
[31] *http://www.mdch.state.mi.us/osr/CHI/hospdx/frame.html*
[32] *http://www.mdch.state.mi.us/osr/CHI/hospdx/frame.html*
[33] *https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/CC_Main.html*
[34] *http://www.countyhealthrankings.org/app/michigan/2018/overview*
[35] *https://www.nimh.nih.gov/about/directors/thomas-insel/blog/2011/the-global-cost-of-mental-illness.shtml*
[36] *https://www.psychologytoday.com/us/blog/brick-brick/201405/the-stigma-mental-illness-is-making-us-sicker*
[37] *https://www.nimh.nih.gov/about/directors/thomas-insel/blog/2011/the-global-cost-of-mental-illness.shtml*

Beaumont Community Health Needs Assessment

Summary

Beaumont Health conducted a CHNA beginning January 2019 to identify the health needs of the community it serves. Using both qualitative community feedback as well as publicly available and proprietary health data, Beaumont identified and prioritized community health needs for the communities served by its hospital facilities. With the goal of improving the health of the community, implementation plans with specific tactics, outcome measures and potential partners have been developed for the health needs Beaumont has chosen to address for the communities it serves. Beaumont's community health priorities will be addressed through strategies and activities described in the implementation plans. Beaumont's leaders will participate in developing work plans and establishing metrics to measure progress. Beaumont will build on existing community programs and partnerships to address the health needs identified through the CHNA process.

Beaumont Health hospitals' community findings

The overall Beaumont community is the aggregate of individual hospital communities. It is important to note that individual hospital communities overlap. The Beaumont hospitals are located in, and each serve, some portion of Macomb, Oakland and Wayne counties. Beaumont approached the CHNA process as a collaborative effort between their hospitals but have also included information specific to each hospital community where the data collection was able to provide hospital community specific information. The health needs that Beaumont has chosen to address are common across all eight hospital communities, but understanding localized data is key to creating and customizing the CHNA implementation strategies to the unique characteristics of the diverse communities served by each Beaumont hospital.

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Beaumont, Dearborn

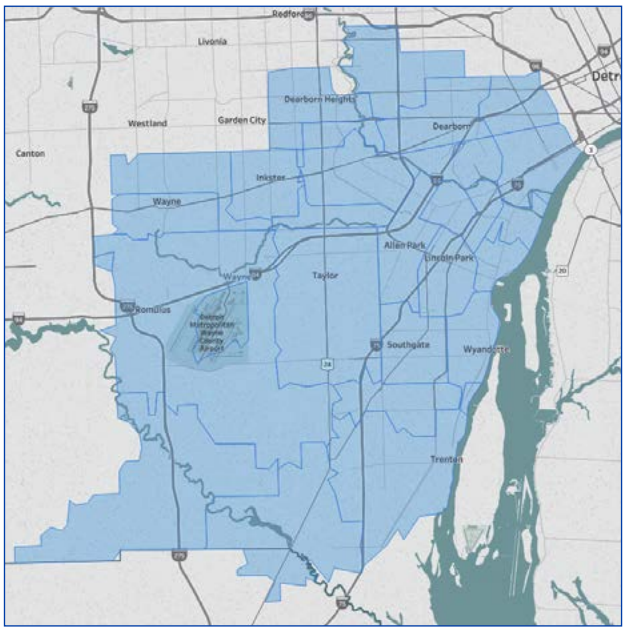
Beaumont, Dearborn

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. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Dearborn: Map of community served



Source: Beaumont Health, 2019

Demographic and socioeconomic summary

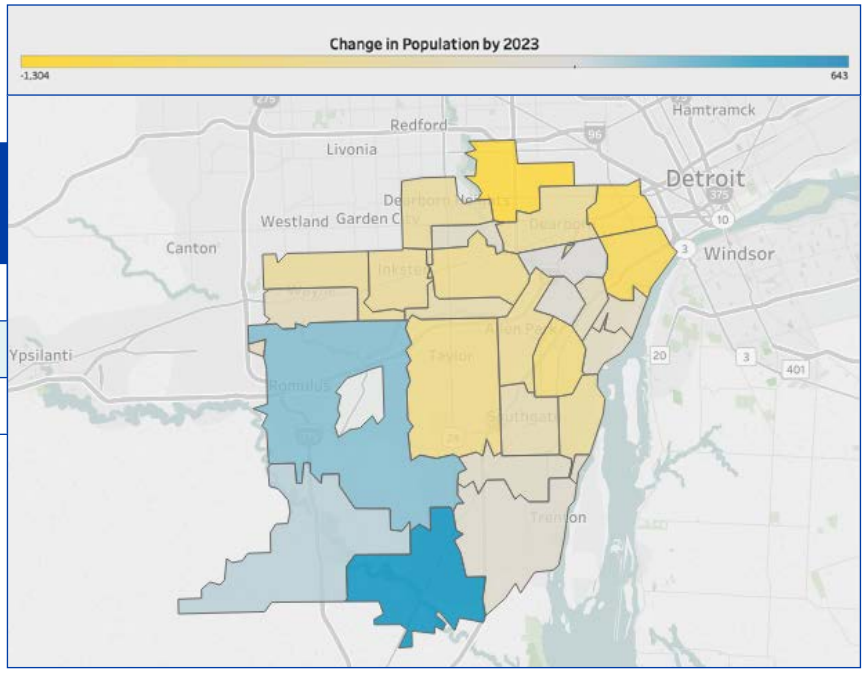
The population of the community served is expected to decrease 1.7% by 2023, a decline of more than 11,000 people. The community's population decline contrasts with Michigan's slow projected growth rate (0.6%) and higher national projected growth rate (3.5%).

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**

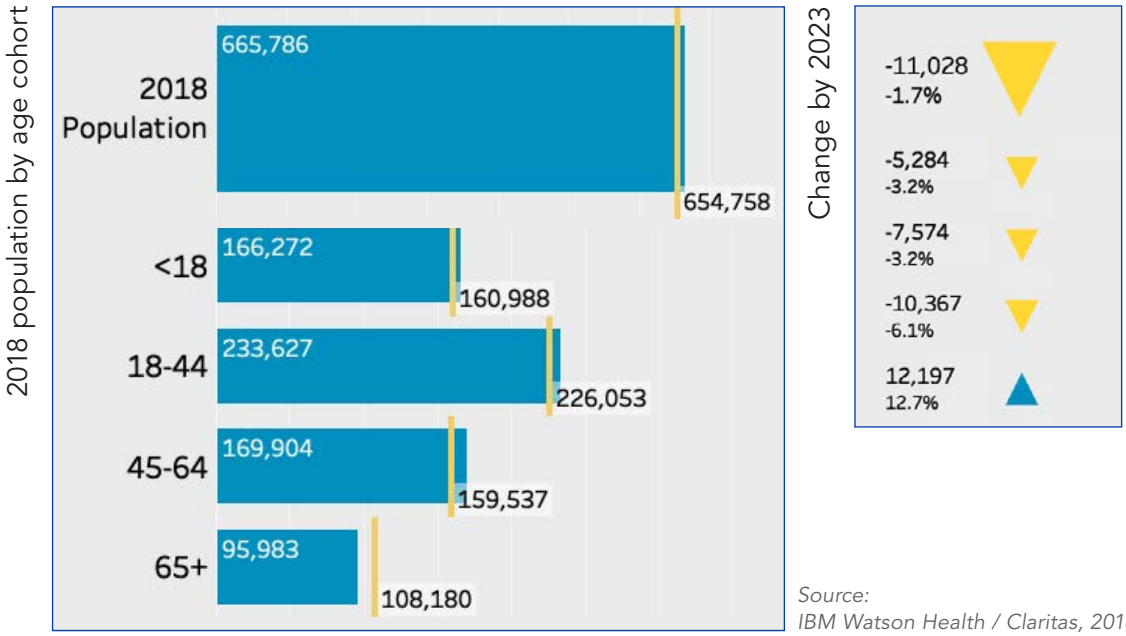
Source: IBM Watson Health / Claritas, 2018

2018 - 2023 Total population projected change by ZIP code



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.

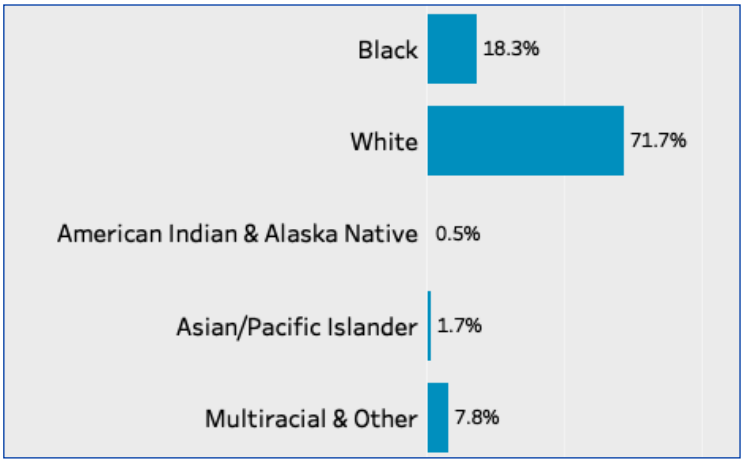
Population distribution by age



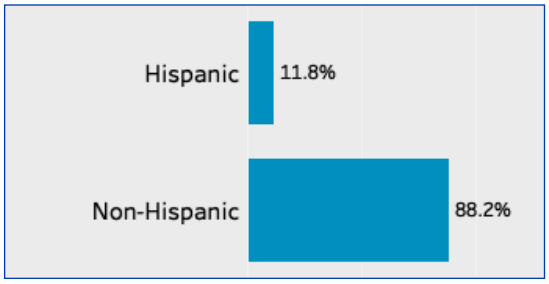
Source: IBM Watson Health / Claritas, 2018

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

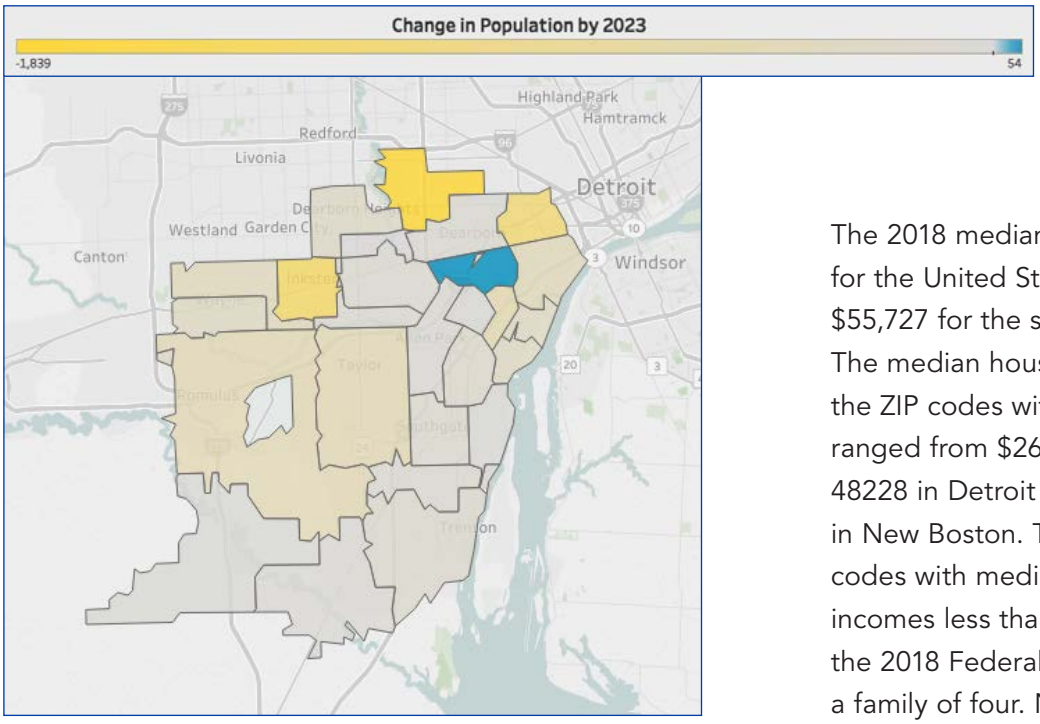


2018 Population by ethnicity



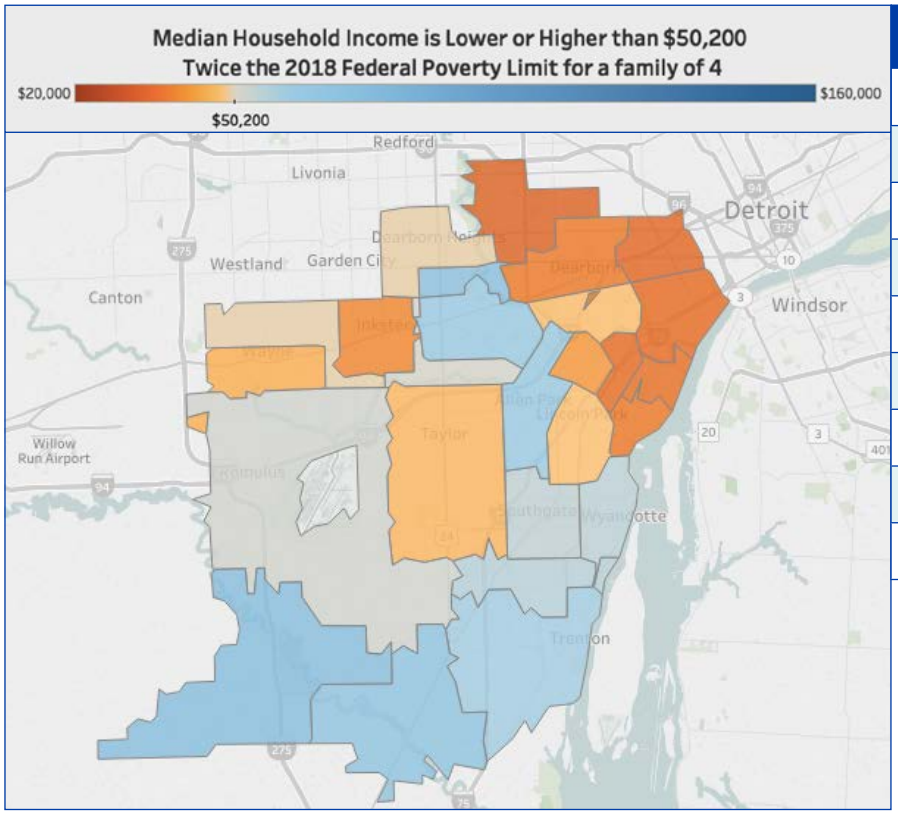
Source: IBM Watson Health / Claritas, 2018

2018 - 2023 Black population projected change by ZIP code



Source: IBM Watson Health / Claritas, 2018

2018 Median household income by ZIP code

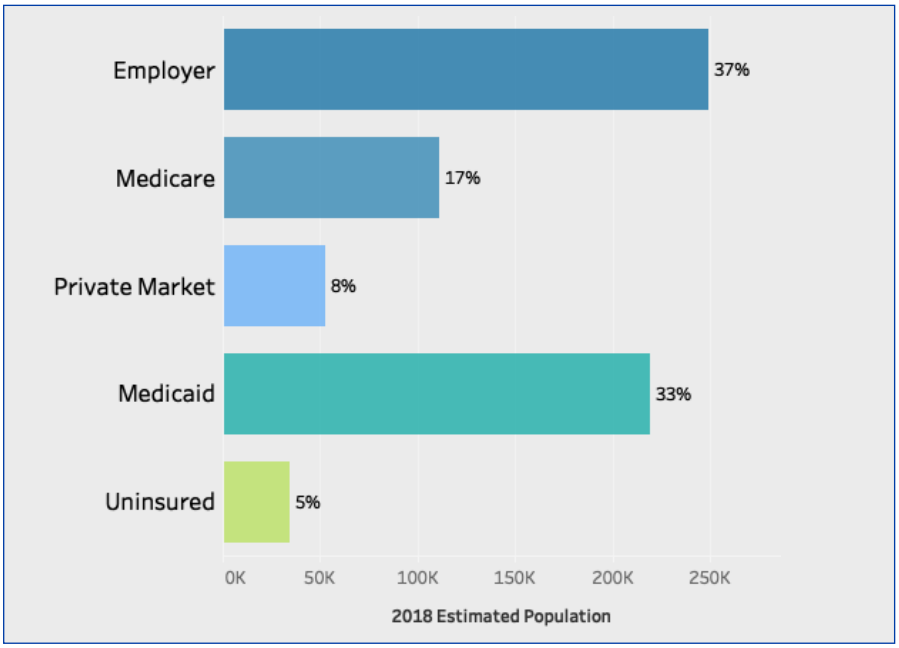


The 2018 median household income for the United States is $62,175 and $55,727 for the state of Michigan. The median household income for the ZIP codes within this community ranged from $26,089 for ZIP code 48228 in Detroit to $83,688 for 48164 in New Boston. There are 15 ZIP codes with median household 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:

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.

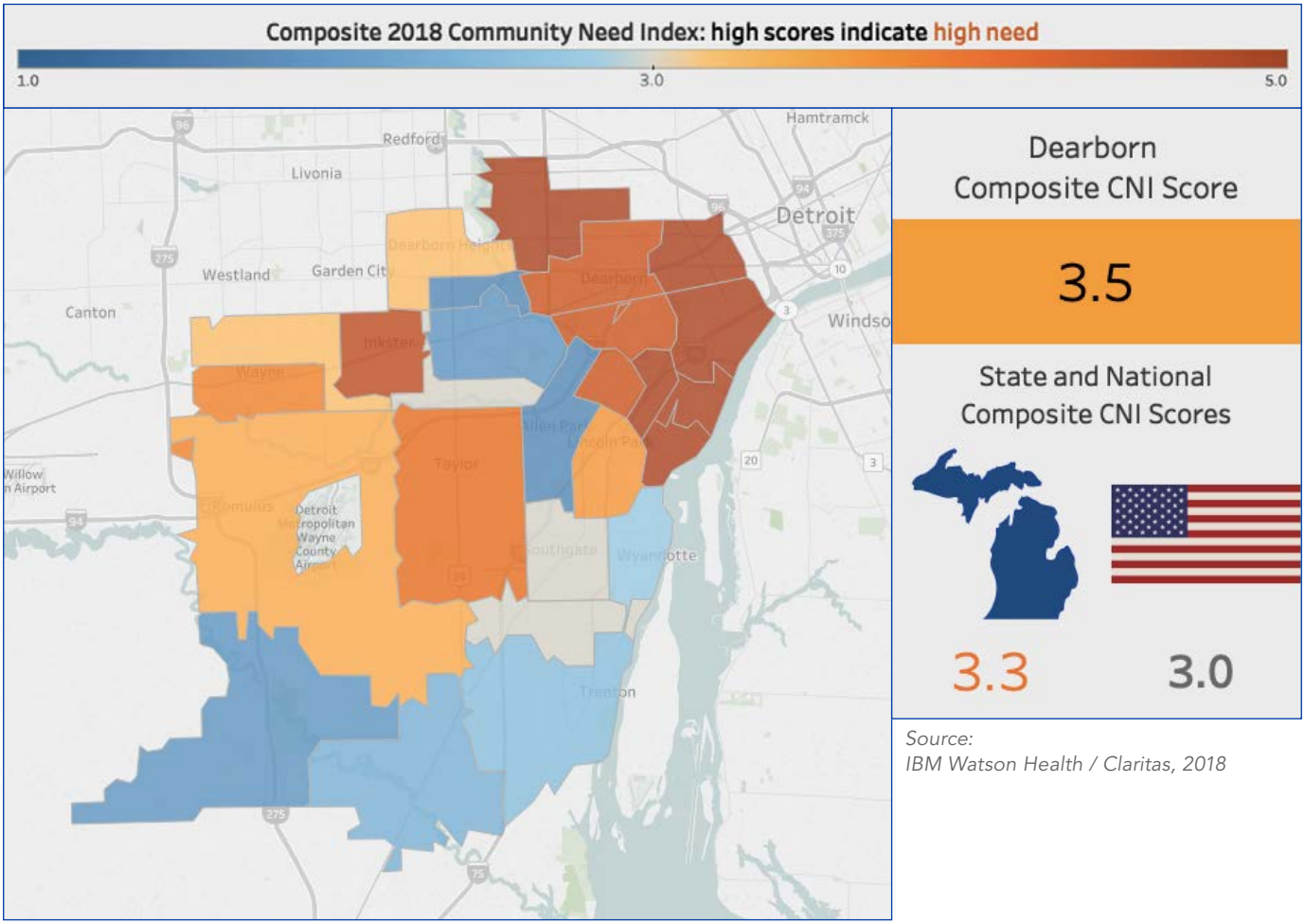
Beaumont, Dearborn

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

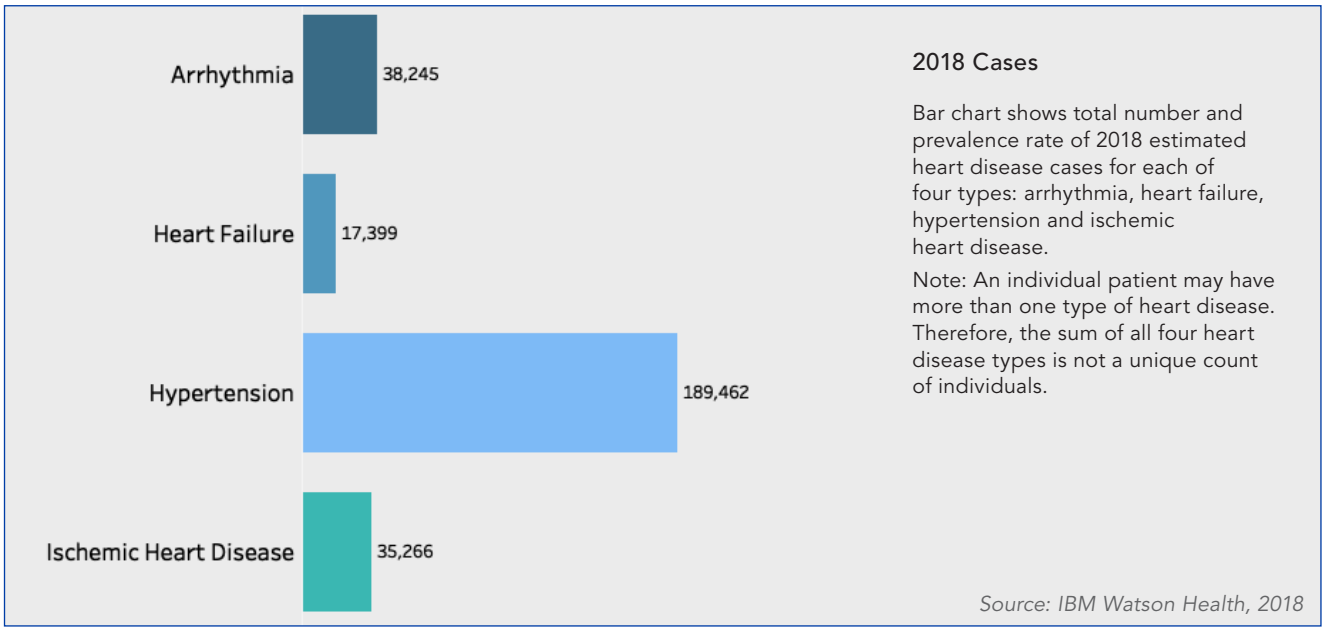
ZIP Map where color shows the Community Need Index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

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

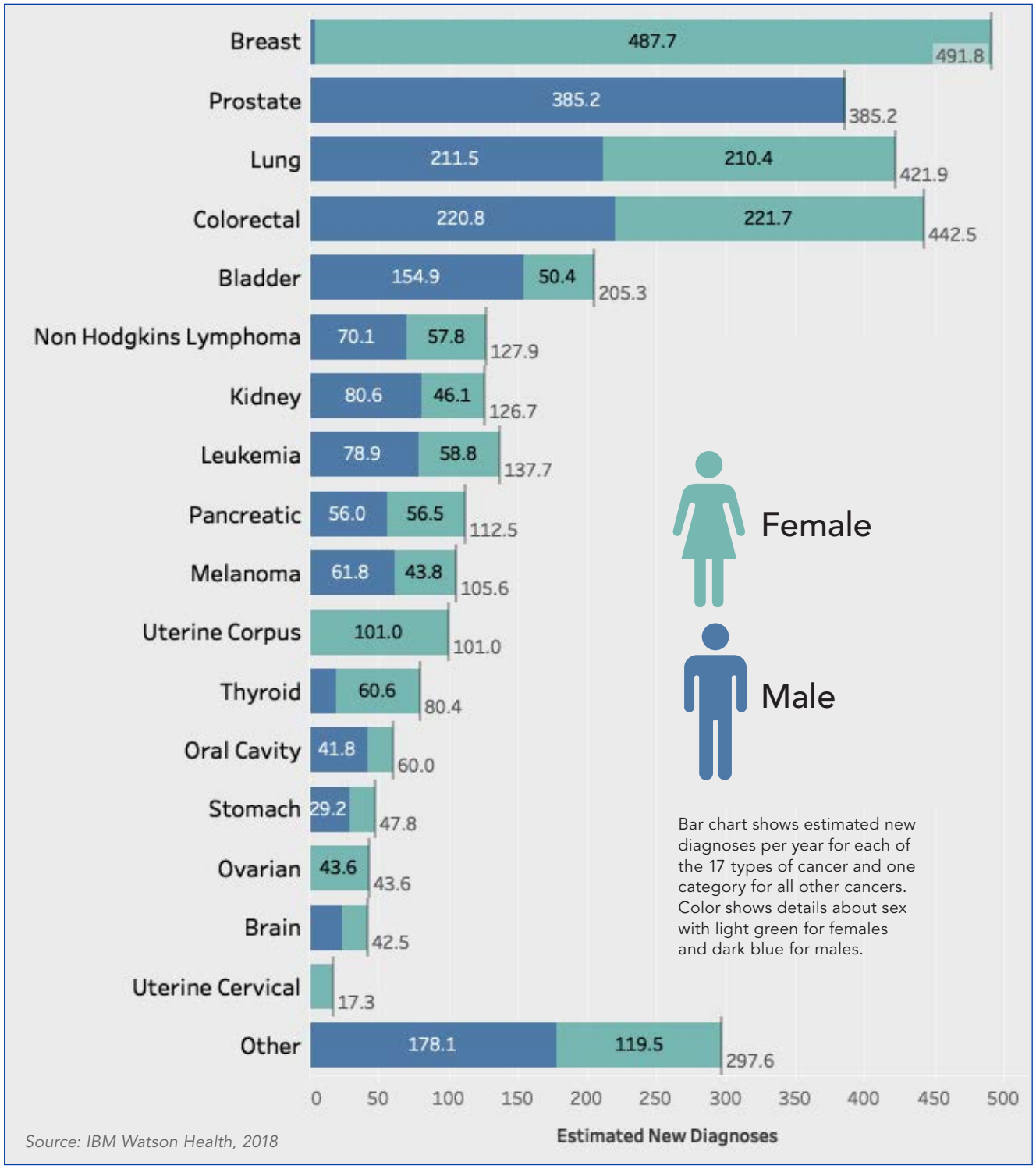


Source: IBM Watson Health, 2018

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

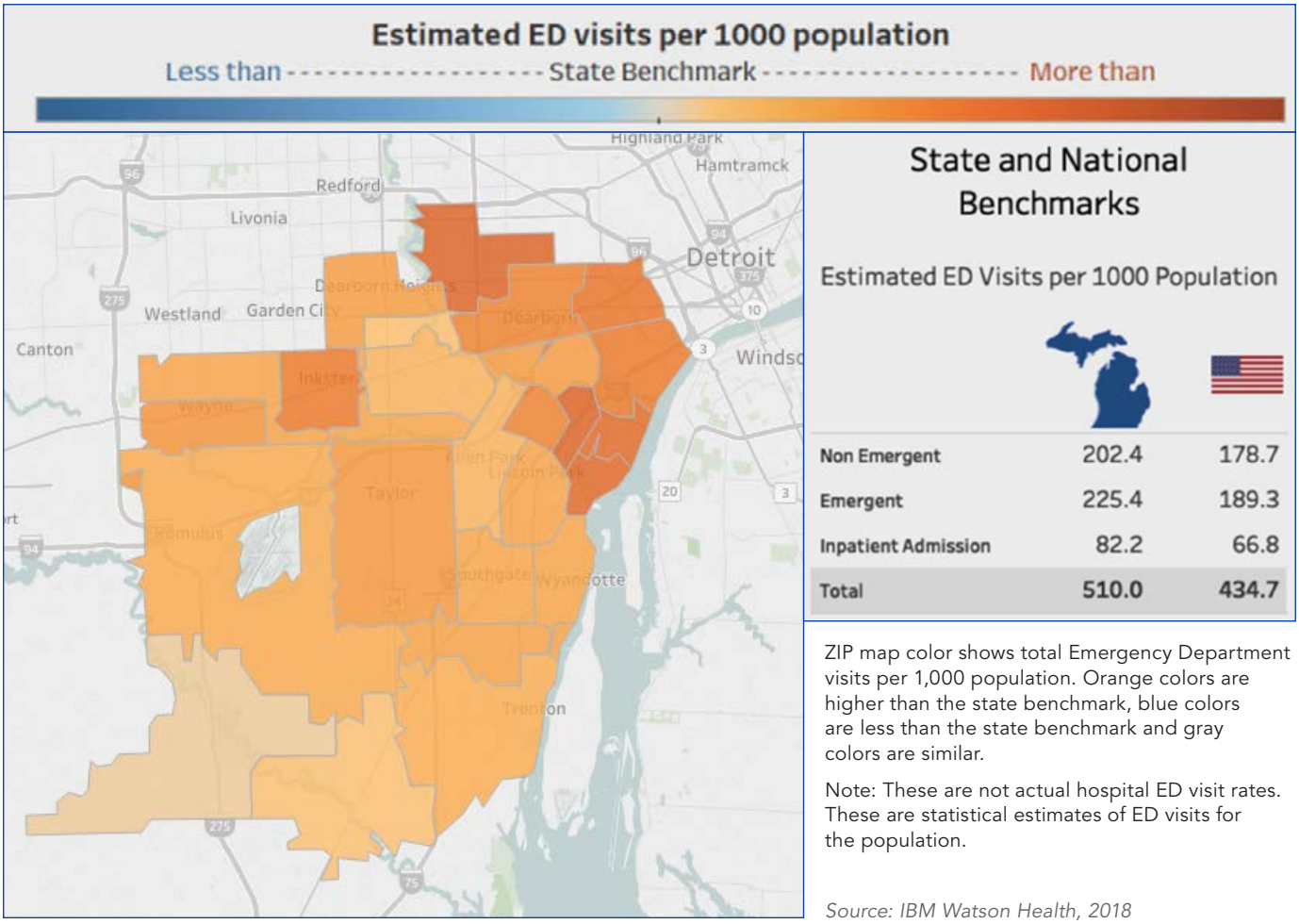
Based on population characteristics and regional utilization rates, IBM Watson Health projected all Emergency Department visits in this community to decrease by 1.3% over the next five years.

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

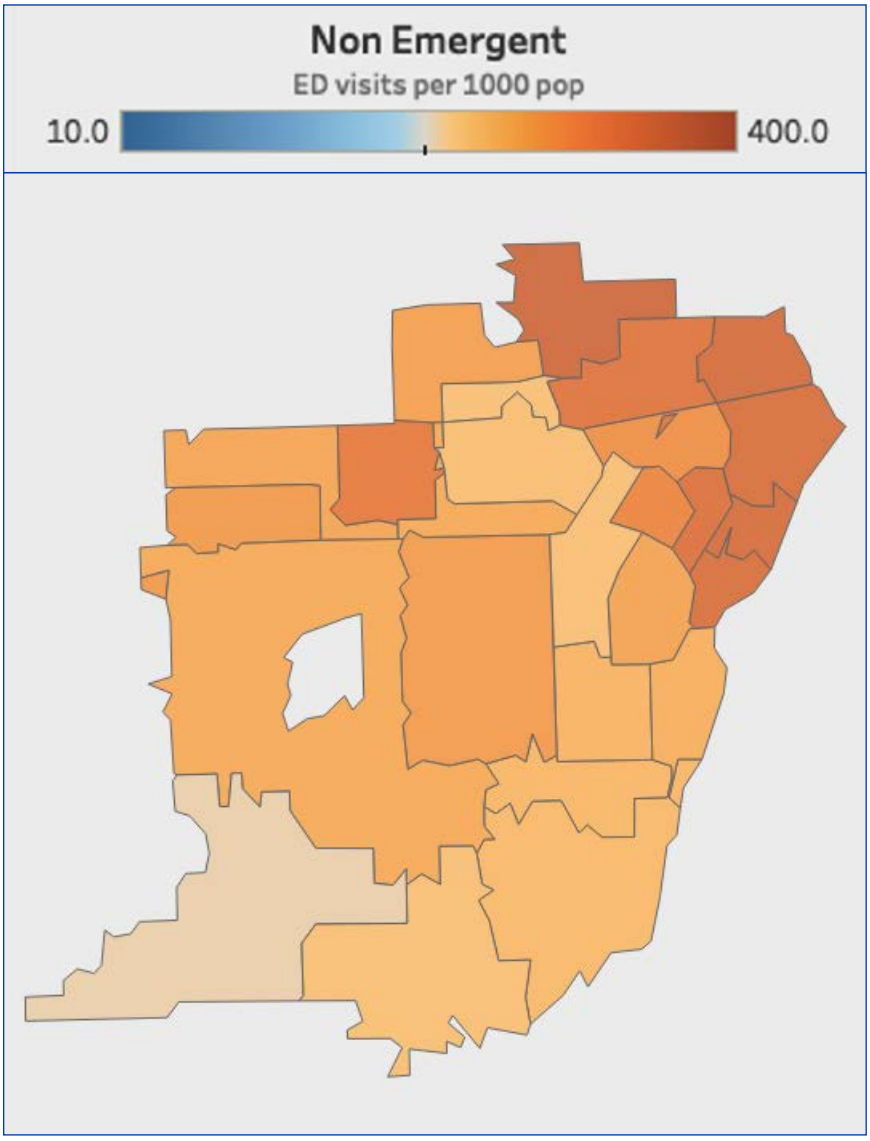


ZIP map color shows total Emergency Department visits per 1,000 population. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark and gray colors are similar.

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

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Beaumont, Farmington Hills

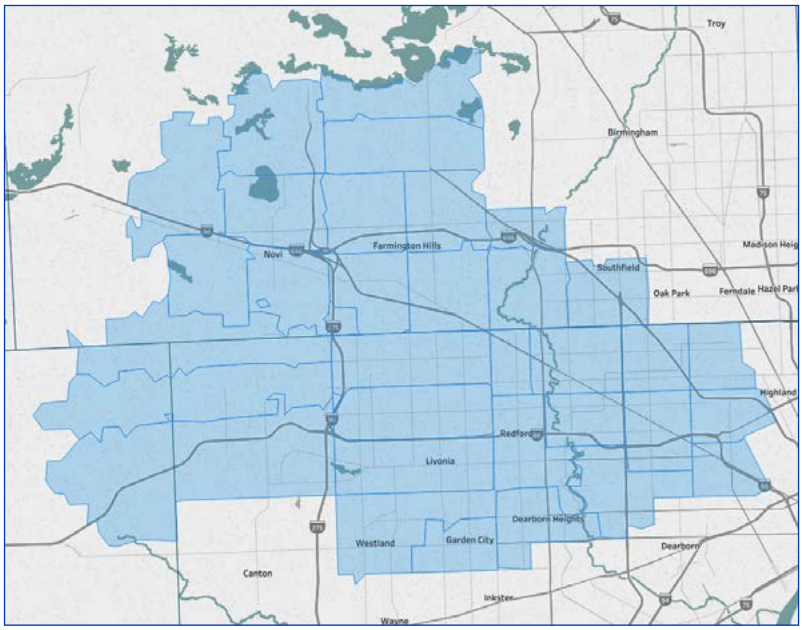
Beaumont, Farmington Hills

Beaumont, Farmington Hills opened on Jan. 19, 1965 as a 200-bed community hospital. Today, the hospital is a 330-bed teaching facility with Level II trauma status. With 176 residents and 18 accredited residency and fellowship programs, Beaumont, Farmington Hills offers high-quality, patient and family-centered care in orthopedics, neurology, cardiology, women's services, oncology and surgical services.

Community served

The Beaumont, Farmington Hills community (Beaumont, Farmington Hills) 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. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Farmington Hills: Map of community served



Source: Beaumont Health, 2019

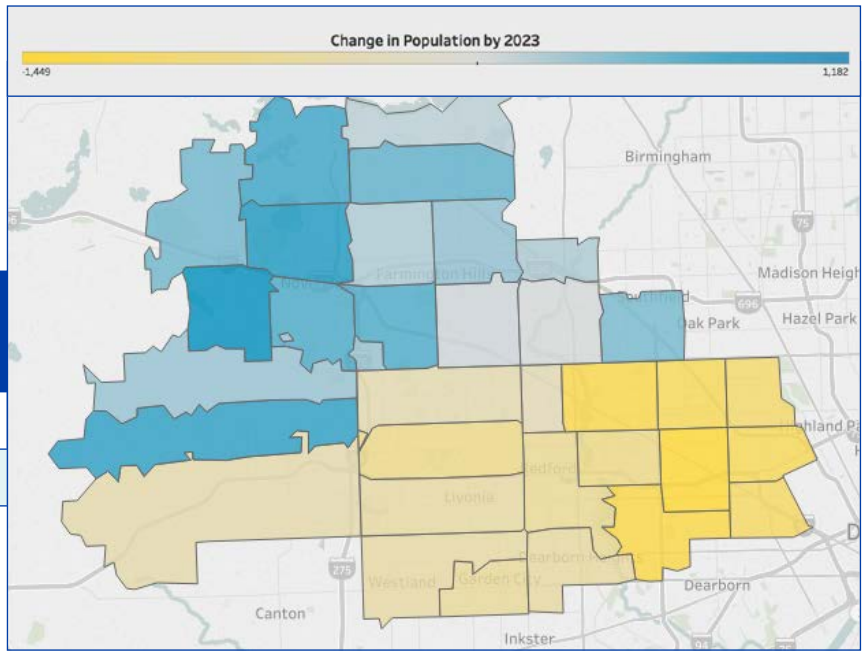
Demographic and socioeconomic summary

The population of the community served is expected to decrease 0.6% by 2023, a decline of more than 5,000 people. The community's population decline contrasts with Michigan's slow projected growth rate (0.6%) and higher national projected growth rate (3.5%). However, 16 of the 33 community ZIP codes are expected to experience growth in the next five years, two ZIP codes are expected to add more than 1,000 people each:

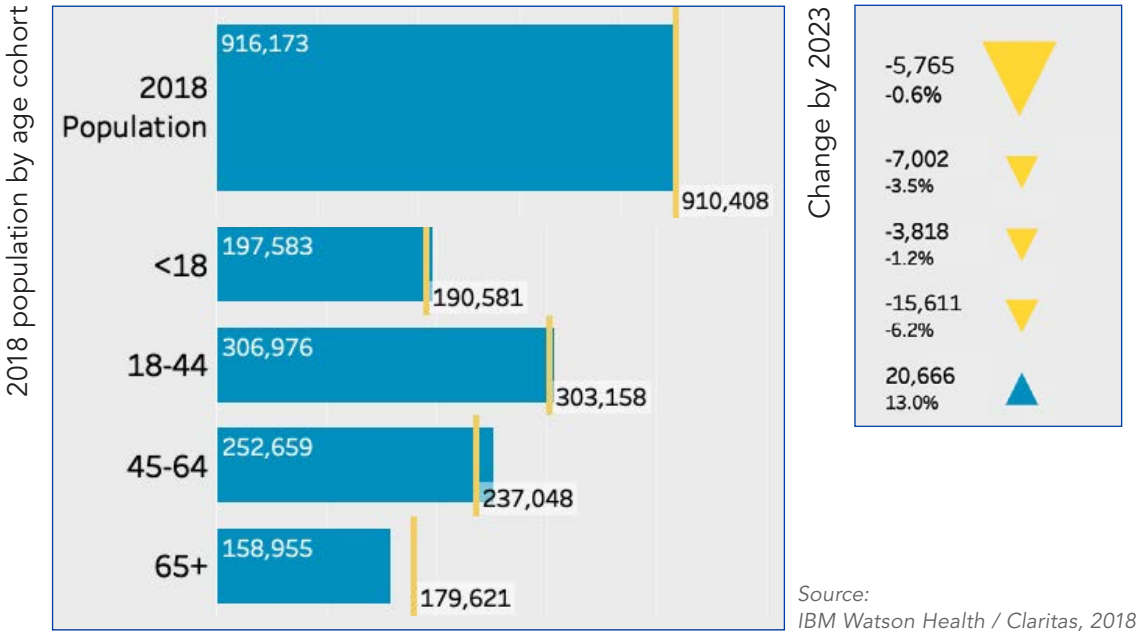
Zip Codes	Growth in five years (# of people)
48374 Novi	**1,182**
48377 Novi	**1,012**

Source: IBM Watson Health / Claritas, 2018

2018 - 2023 Total population projected change by ZIP code



The community's population skews relatively younger with 33.5% of the population ages 18-44 and 21.6% under age 18. The largest cohort (18-44) is expected to decrease by 3,818 people by 2023, while the age 65-plus cohort (the smallest at 17.3% of the total population) is the only age group expected to experience growth (13.0%) over the next five years, adding 20,666 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

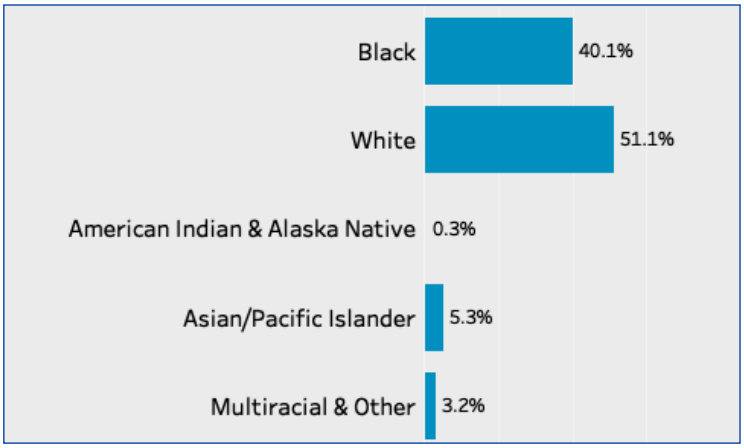


Population distribution by age

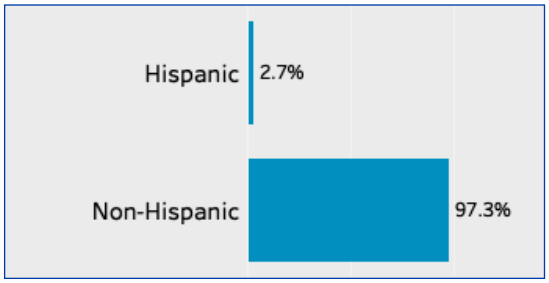
Source:
IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The community is primarily racially white (51.1%) and black (40.1%). These population groups are the only ones projected to decrease over the next five years, the white population by -2.0% (9,186 people) and the black population by -2.4% (8,893 people). The Asian/Pacific Islander population is projected to grow by 8,160 people (16.8%). In terms of ethnicity, the Hispanic population (all races) is expected to grow by 2,958 people (12.1%) by 2023, while the non-Hispanic population (all races) is expected to decline by over 8,000 people (-1%) by 2023.

2018 Population by race

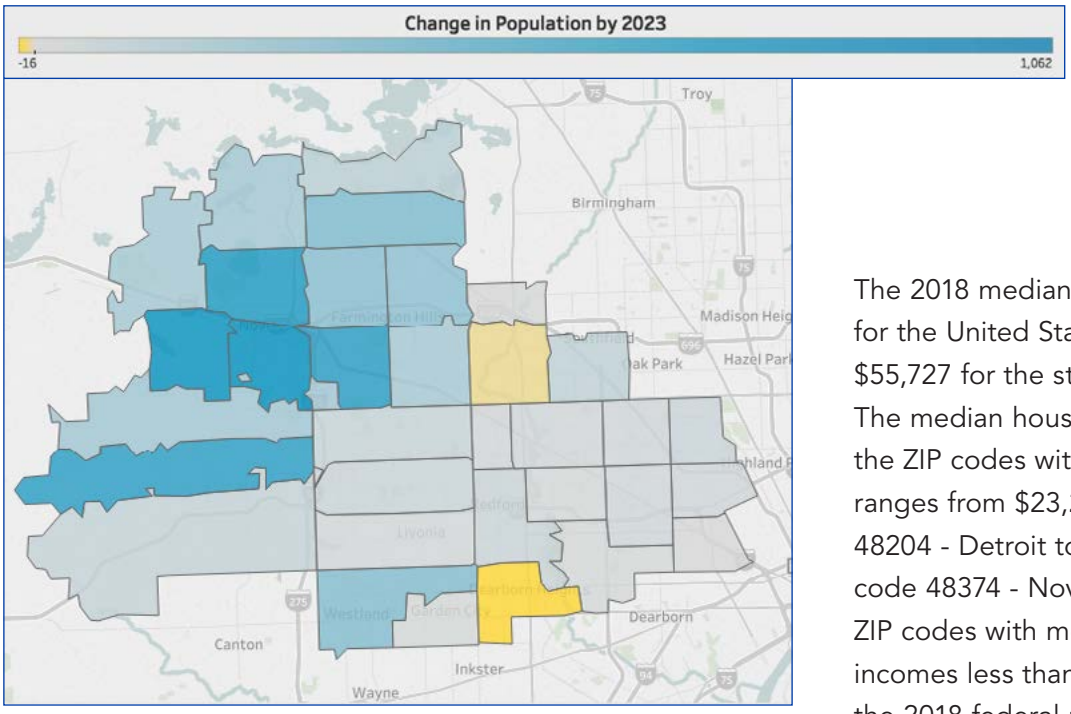


2018 Population by ethnicity



Source: IBM Watson Health / Claritas, 2018

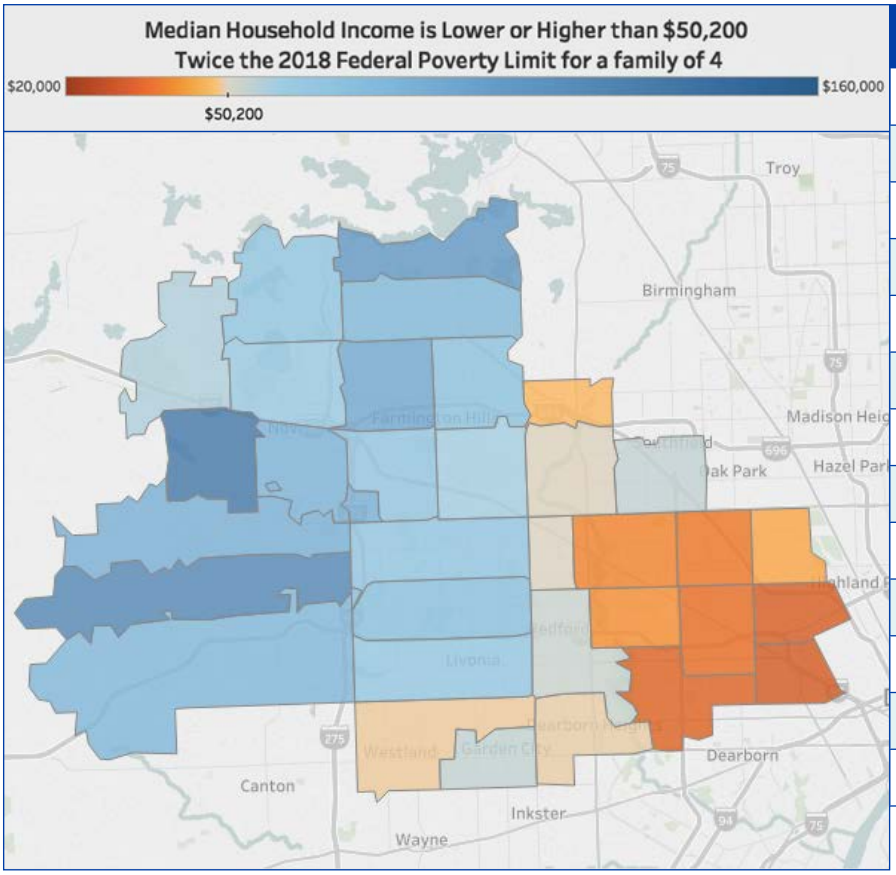
2018 - 2023 Asian/Pacific Islander race population projected change by ZIP code



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 ranges from $23,218 for ZIP code 48204 - Detroit to $161,301 for ZIP code 48374 - Novi. There are 13 ZIP codes with median household incomes less than $50,200, twice the 2018 federal poverty limit for a family of four:

2018 Median household income by ZIP code

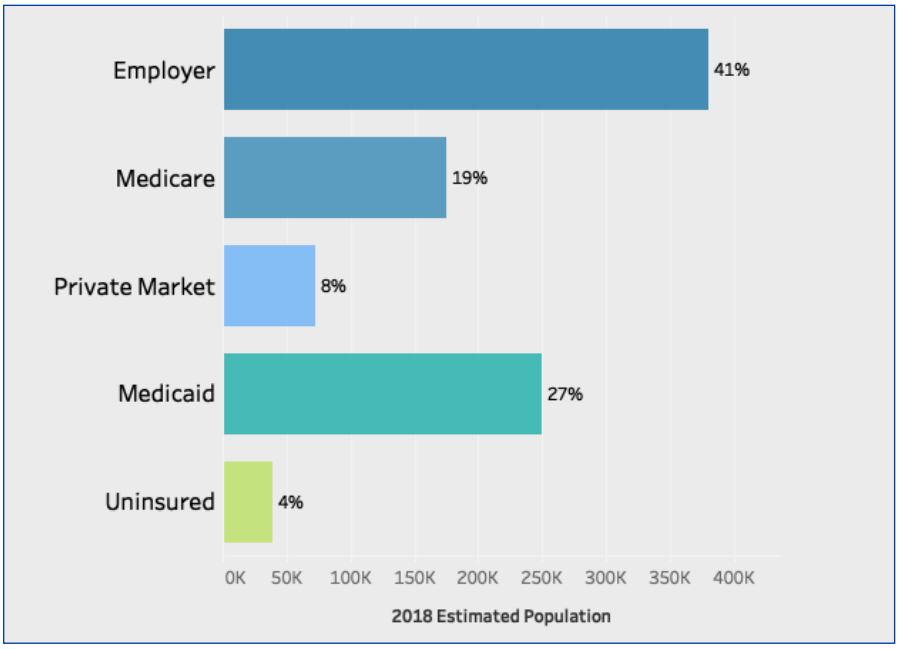


Zip Codes	Income
48204 Detroit	**$23,218**
48238 Detroit	**$24,154**
48228 Detroit	**$26,089**
48227 Detroit	**$29,243**
48235 Detroit	**$31,449**
48219 Detroit	**$34,018**
48240 Redford	**$49,871**
48223 Detroit	**$35,961**
48221 Detroit	**$40,536**
48034 Southfield	**$44,544**
48185 Westland	**$48,313**
48127 Dearborn Heights	**$48,824**
48033 Southfield	**$49,761**

Source: IBM Watson Health / Claritas, 2018

The majority of the population (87%) is insured through employer-sponsored health coverage (41%), Medicaid (27%) and Medicare (19%). The remainder of the population is divided between the uninsured (4%) and 8% private market insurance (the purchasers of coverage directly or through the health insurance marketplace).

2018 Estimated distribution of covered lives by insurance category

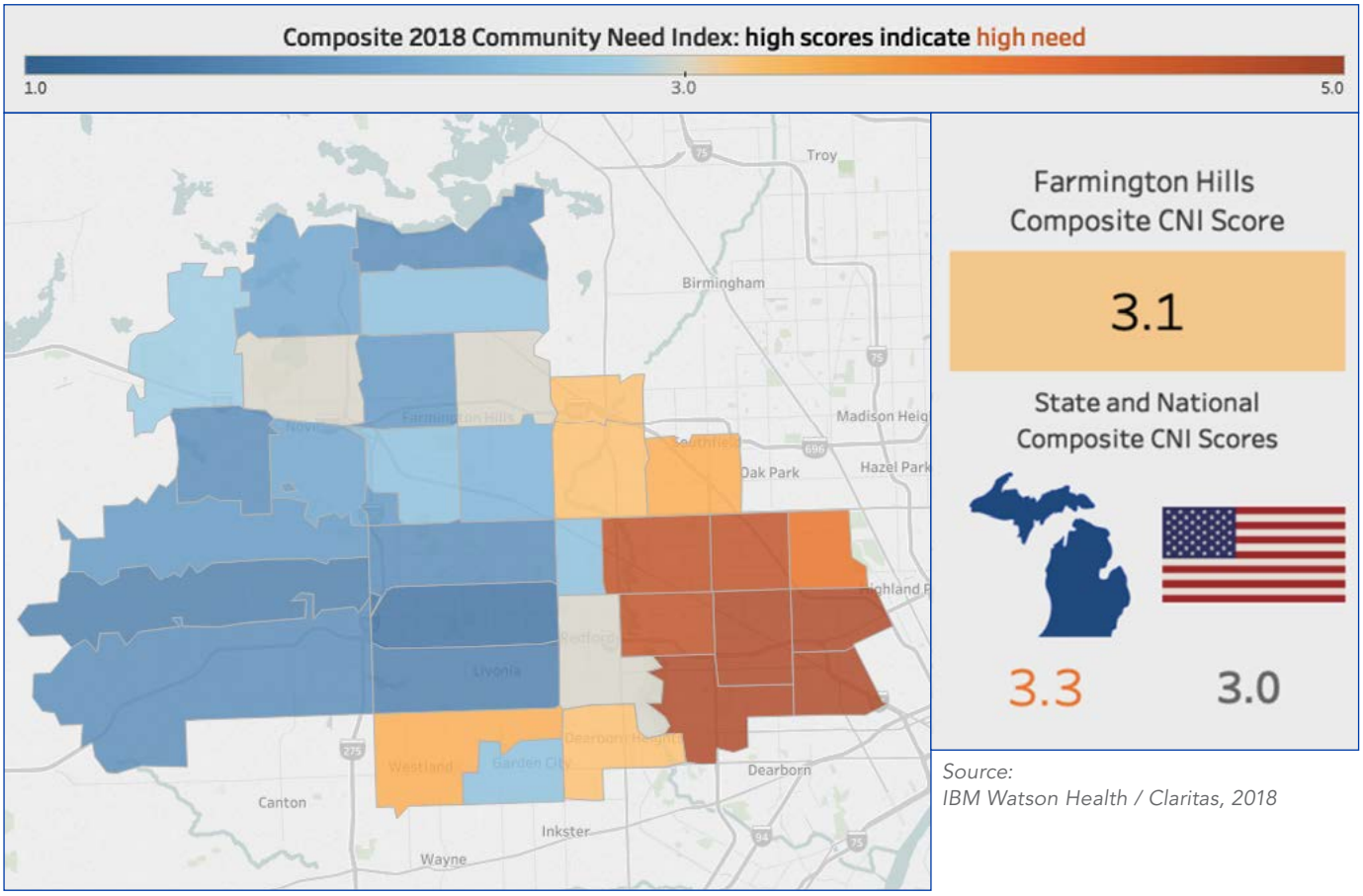


Source: IBM Watson Health / Claritas, 2018

Beaumont, Farmington Hills

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 3.1, just slightly higher than the CNI national benchmark of 3.0 and lower than the state average of 3.3. In seven (7) of the eight (8) Detroit ZIP codes (48238, 48228, 48227, 48204, 48235, 48223, 48219) the CNI score is greater than 4.5, pointing to potentially more significant health needs among those populations.

2018 Community need index by ZIP code



Source:
IBM Watson Health / Claritas, 2018

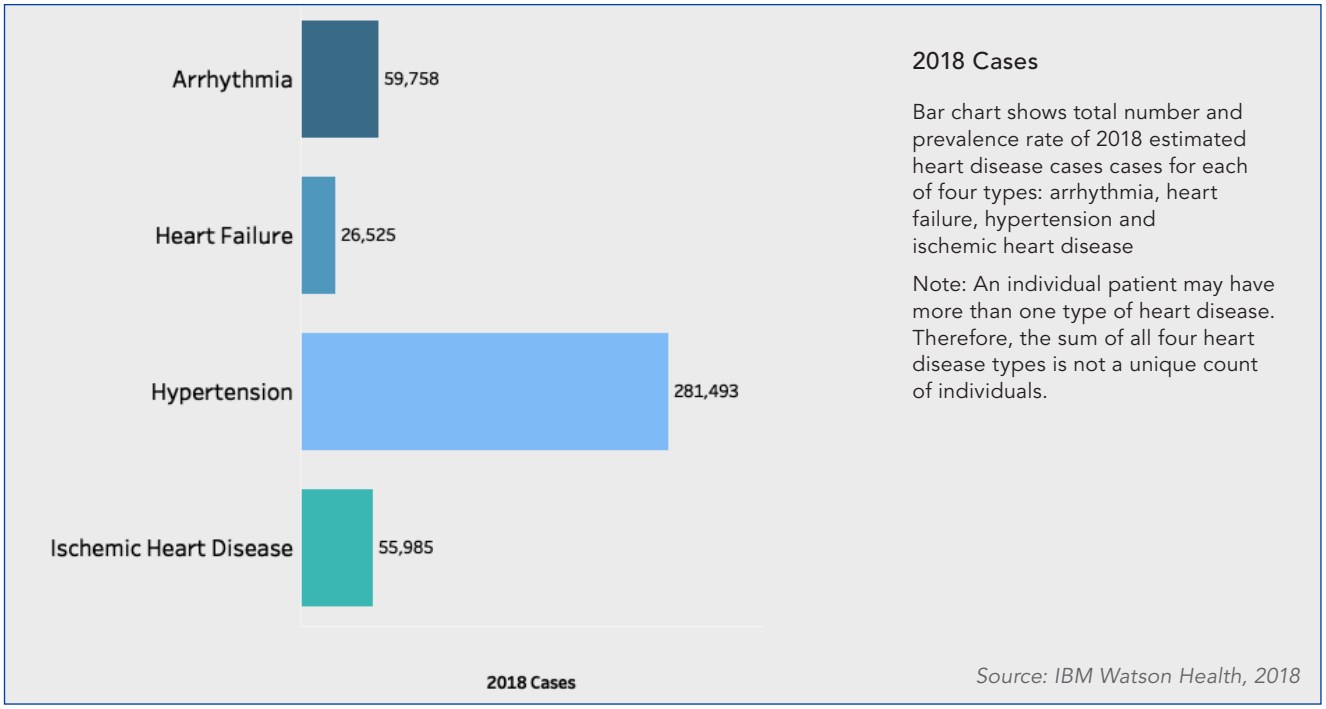
ZIP Map where color shows the community need index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

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 diagnoses; there are over 281,000 estimated cases in the community overall. The 48185 ZIP code of Westland has the most estimated cases of hypertension, arrhythmia and heart failure, while the 48154 ZIP code of Livonia has the most estimated cases of ischemic heart disease. The 48154 ZIP code of Livonia also has the highest estimated prevalence rates for heart failure (36 cases per 1,000 population) and hypertension (356 cases per 1,000 population), while the 48033 ZIP code of Southfield has the most estimated prevalence rates for arrhythmia (80 cases per 1,000 population), and the 48323 ZIP code of West Bloomfield has the highest estimated prevalence rates for ischemic heart disease (77 cases per 1,000 population).

2018 Estimated heart disease cases

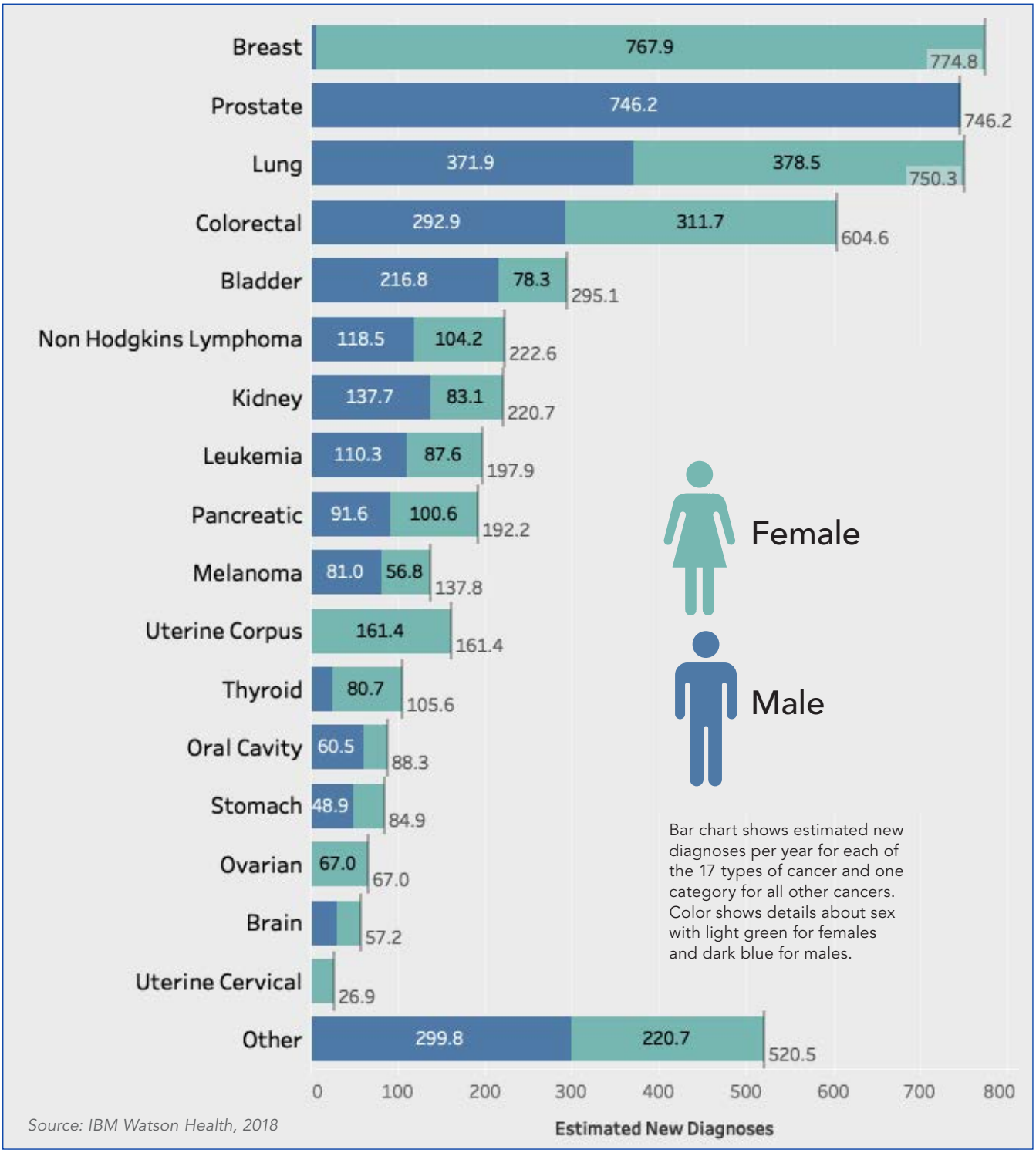


Source: IBM Watson Health, 2018

Beaumont, Farmington Hills

For this community, IBM Watson Health's 2018 cancer estimates revealed the cancers estimated to have the greatest number of new cases in 2018 are breast, lung, prostate and colorectal cancers. The cancers projected to have the greatest rate of growth in the next five years are melanoma, pancreatic and bladder, 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	8.9%
Brain	57	59	2.7%
Breast	775	804	3.8%
Colorectal	605	562	-7.0%
Kidney	221	236	6.8%
Leukemia	198	210	6.3%
Lung	750	781	4.0%
Melanoma	138	151	9.3%
Non-Hodgkin's lymphoma	223	237	6.4%
Oral cavity	88	93	5.2%
Ovarian	67	69	2.7%
Pancreatic	192	209	8.5%
Prostate	746	721	-3.4%
Stomach	85	88	3.4%
Thyroid	106	114	7.9%
Uterine - cervical	27	25	-6.9%
Uterine - corpus	161	171	5.9%
Other	521	553	6.3%
Grand total	**5,254**	**5,402**	**2.8%**

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

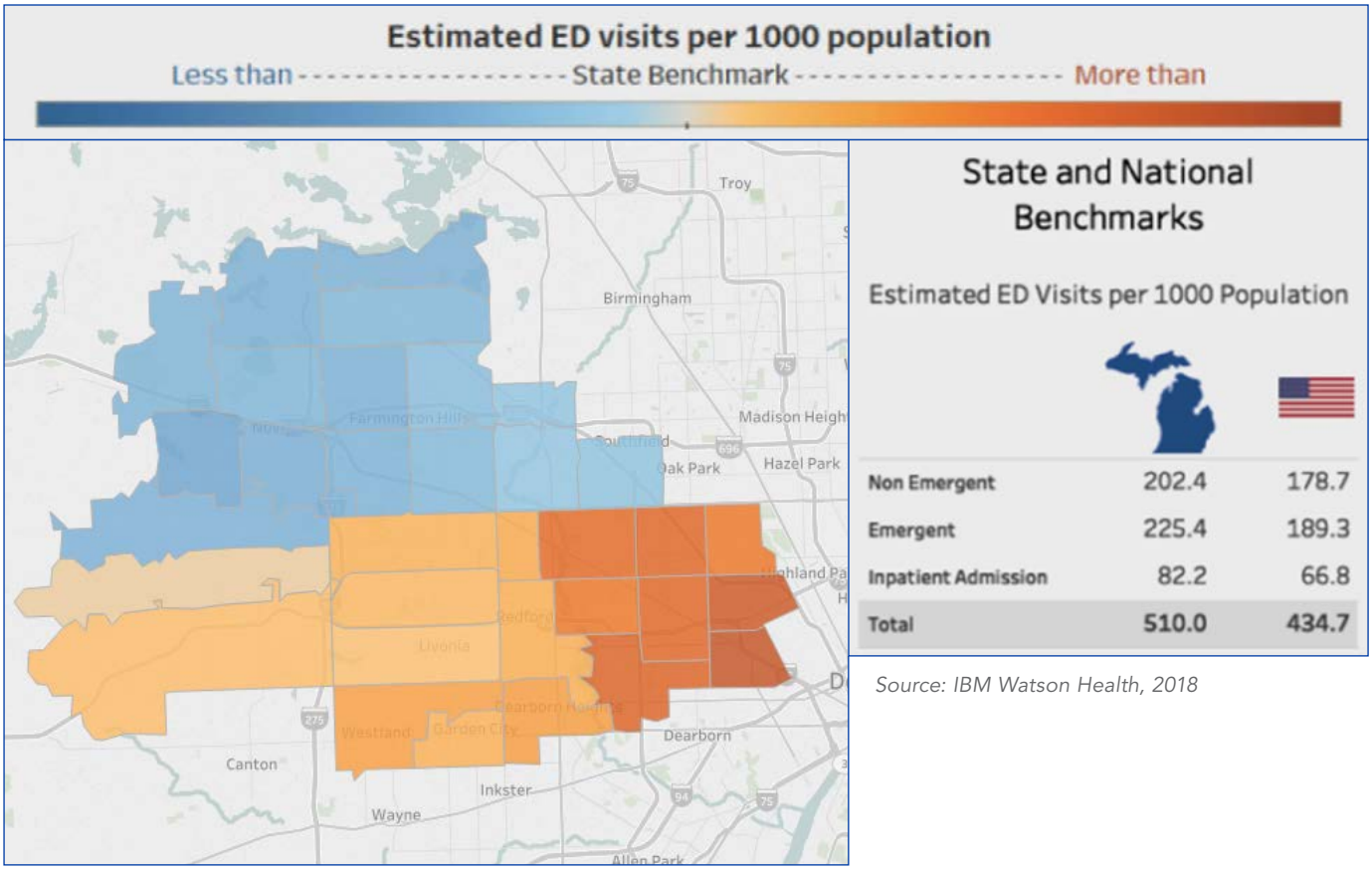
Beaumont, Farmington Hills

Based on population characteristics and regional utilization rates, IBM Watson Health projects all Emergency Department visits in this community to decrease by 0.5% over the next five years. The highest estimated ED use rates are in the ZIP codes of Detroit: 879.0 to 735.7 ED visits per 1,000 residents compared to the Michigan state benchmark of 510.0 visits and the U.S. benchmark of 435.7 visits per 1,000.

These ED visits consisted of three main types: those ED visits 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 outpatient 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 2.9% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate



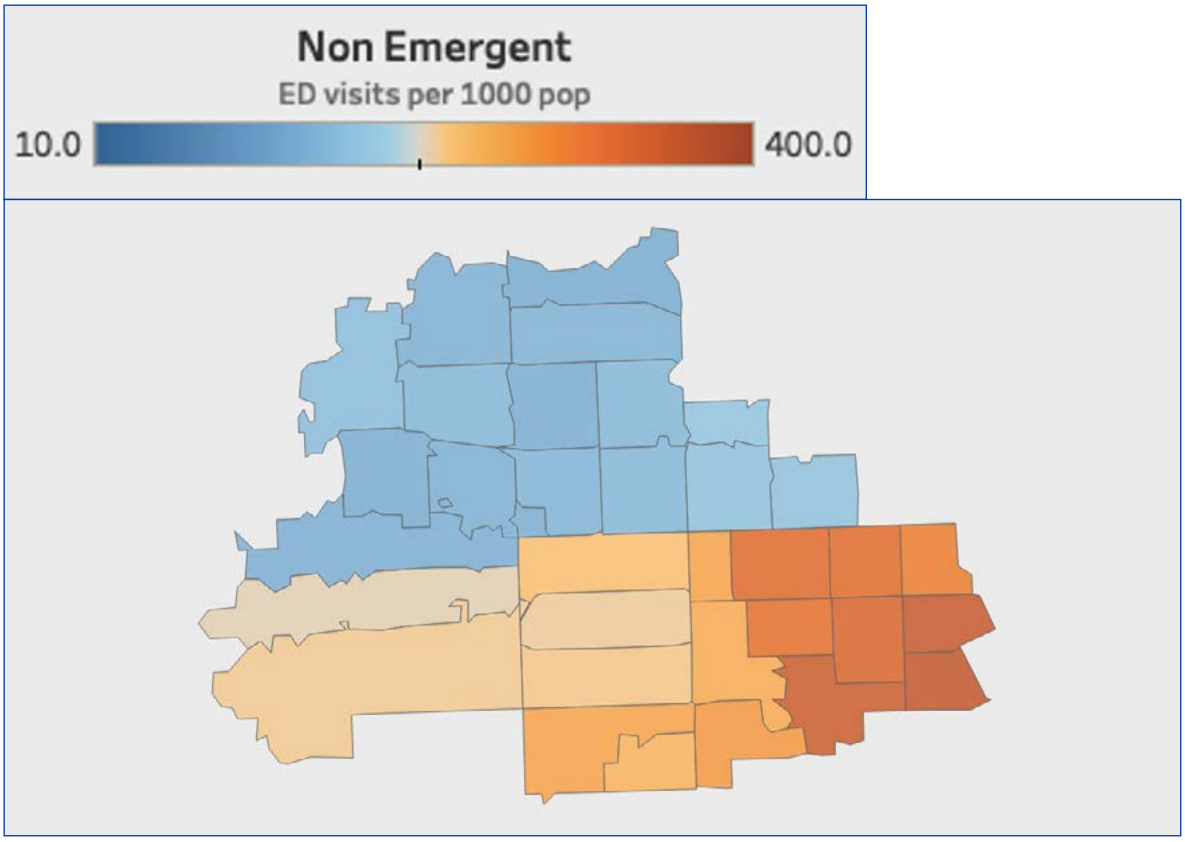
Non Emergent	202.4	178.7
Emergent	225.4	189.3
Inpatient Admission	82.2	66.8
Total	510.0	434.7

Source: IBM Watson Health, 2018

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.

Non-emergent estimated 2018 Emergency Department visits by ZIP code



Source: IBM Watson Health, 2018

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 physician's private office.

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, cooking classes, grocery store tours and food demonstrations to equip families with knowledge and skills to prepare healthy meals. • Continue multi-sector Healthy Greater Farmington 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. • Provide education on chronic disease prevention and management through community events and Beaumont Speakers Bureau. • Explore educational and transit opportunities to increase healthy living opportunities.
COMMITTED RESOURCES	Beaumont, Farmington Hills will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • Healthy Greater Farmington coalition • Cities of Farmington and Farmington Hills • Farmington Public Schools • Farmington Farmers Market • CARES of Southeast Michigan • Redford School District • Taste the Local Difference • Chamber of Commerce
EVALUATION	• Pre/post participant surveys • Partnership agreements • Participation surveys
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase percent of physically active adults. • Increase education and opportunities for physical education.
STRATEGIES AND TACTICS	• Implement community-wide walking, wellness and fitness activities to increase physical activity and social interaction across the community. • Support the Healthy Greater Farmington coalition to improve walkability and bikeability across the community. • Provide training for physical education teachers to implement the Coordinated Approach to Child Health (CATCH) PE nutrition and physical activity program. • Implement the program A Matter of Balance: Managing Concerns About Falls to support physical activity among older adults.
COMMITTED RESOURCES	Beaumont, Farmington Hills will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• City of Farmington Hills • Farmington School District • Farmington Hills Parks and Recreation
EVALUATION	• Participant surveys • Participation rates • Walking log metrics • Up and Go Test • Physical Education teacher evaluation surveys

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, Farmington Hills 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 in 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, Farmington Hills 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 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, Farmington Hills will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• National Kidney Foundation of Michigan • AAA 1-B • Local churches • Libraries • Senior centers • Community organizations
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.
COMMITTED RESOURCES	Beaumont, Farmington Hills will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies • Universal Health Services
EVALUATION	• Partnership agreements • Patients connected to community resources
Objective #2: Provide education program and services.	
OUTCOME MEASURES	• Increase knowledge and awareness of mental health.
STRATEGIES AND TACTICS	• Explore development of mental health toolkit and mental health first aid training to equip local leaders and the broader community with educational resources. • Explore development of social interaction program to engage older adults with youth via leisure activities to reduce social isolation. • Implement mindfulness classes to address anxiety, depression, stress and chronic pain. • Provide education on mental health through community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Farmington Hills will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• S.A.F.E. • Michigan School of Psychology • Healthy Greater Farmington coalition • Farmington Public Schools • Farmington Parks and Recreation • Oakland Community Health Network • Cities of Farmington and Farmington Hills
EVALUATION	• Perceived Stress Scale • Self-Compassion Scale • Qualitative measures • Participant rates • Participation surveys

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

GROSSE POINTE

Beaumont, Grosse Pointe

Beaumont, Grosse Pointe

Beaumont, Grosse Pointe opened in 1945 by the Sisters of Bon Secours and was acquired by Beaumont Health System in October 2007. Beaumont, Grosse Pointe offers medical, surgical, emergency, obstetric and critical care services. In March 2012, the Cotton Family Birth Center at Beaumont, Grosse Pointe was designated a Baby-Friendly® birth center by Baby-Friendly USA. Beaumont, Grosse Pointe is recognized as "high performing" in four medical specialties by U.S. News & World Report.

Community served

The Beaumont, Grosse Pointe community 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. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Grosse Pointe: Map of community served

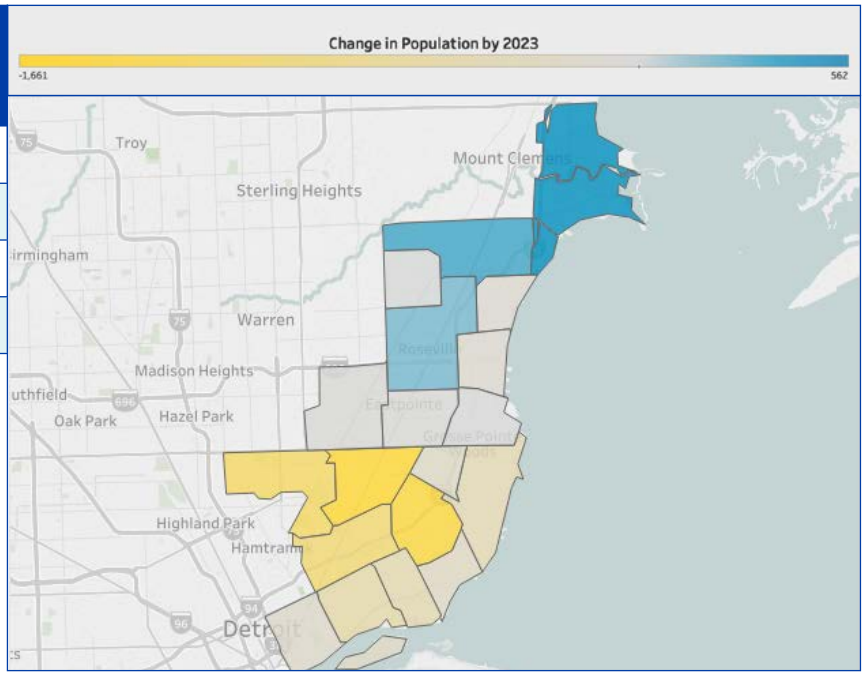
Source: Beaumont Health, 2019

Demographic and socioeconomic summary

The population of the community served is expected to decrease 1.4% by 2023, a decline of more than 6,700 people. This population decline is in contrast with the projected growth rate of Michigan (0.6%) and the nation (3.5%). Within the community, only four ZIP codes are projected to experience growth in the next five years:

2018 - 2023 Total population projected change by ZIP code

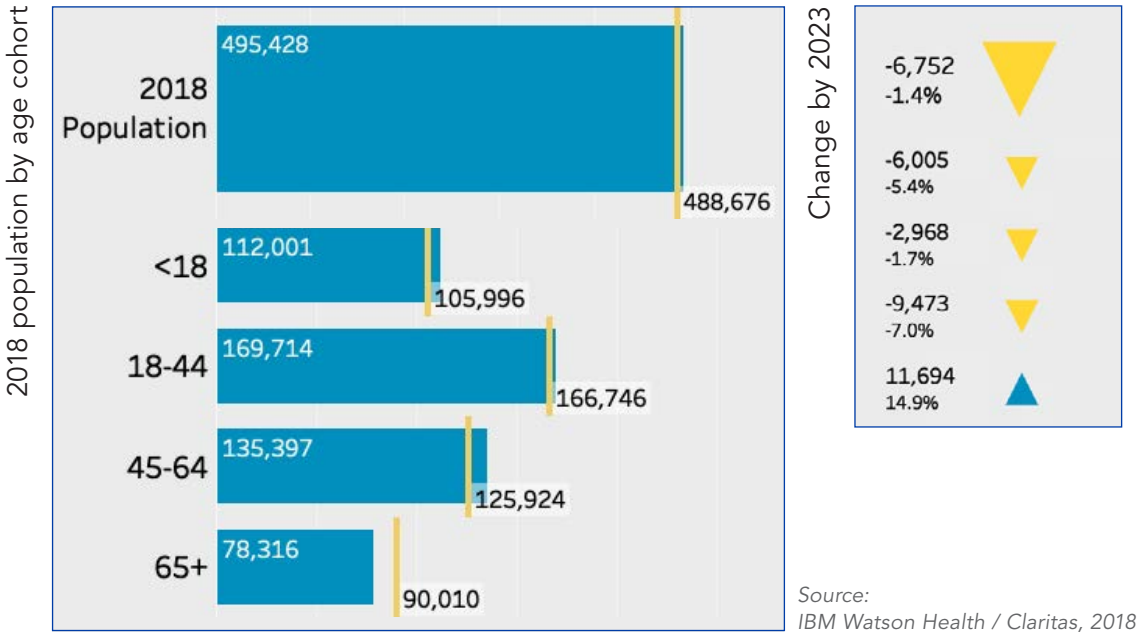
Zip Codes	Growth in five years (# of people)
48045 Harrison Township	**562**
48035 Clinton Township	**384**
48066 Roseville	**238**
48026 Fraser	**6**



Source:
IBM Watson Health / Claritas, 2018

GROSSE POINTE

The community's population skews younger with 34.3% of the population ages 18-44 and 22.6% under age 18. The largest cohort (18-44) is expected to decrease by 2,968 people by 2023 and the age 65-plus cohort (the smallest at 15.8% of the population) is the only group expected to experience growth (14.9%) over the next five years, adding 11,694 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

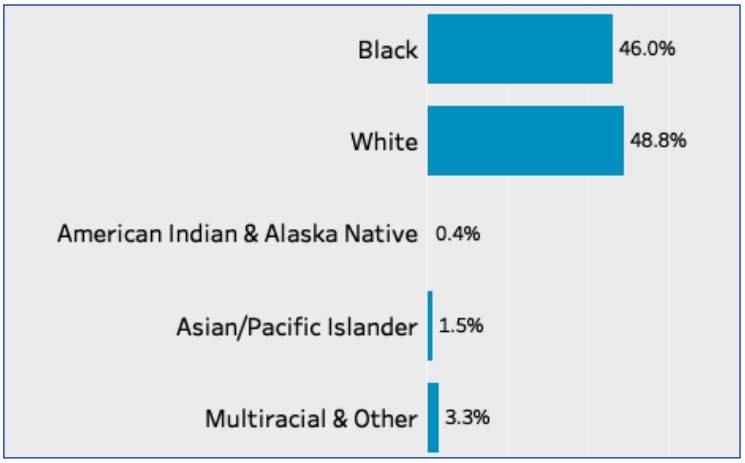


Population distribution by age

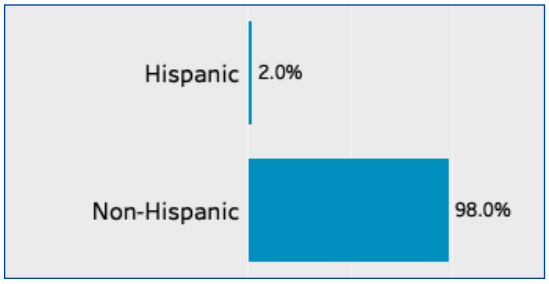
Source: IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The predominant racial groups in the community are white (48.8%) and black (46.0%) but the community is fairly segregated by race. The white population is the only racial group projected to decline over the next five years and is primarily responsible for the declining population overall of -4.6% growth or 11,031 people. There is little ethnic diversity as the population is almost entirely non-Hispanic (98.0%). By 2023, the expected growth rate of the Hispanic population (all races) is 1,300 people (12.9%), while the non-Hispanic population (all races) is expected to decline by over 8,000 people (-1.7%).

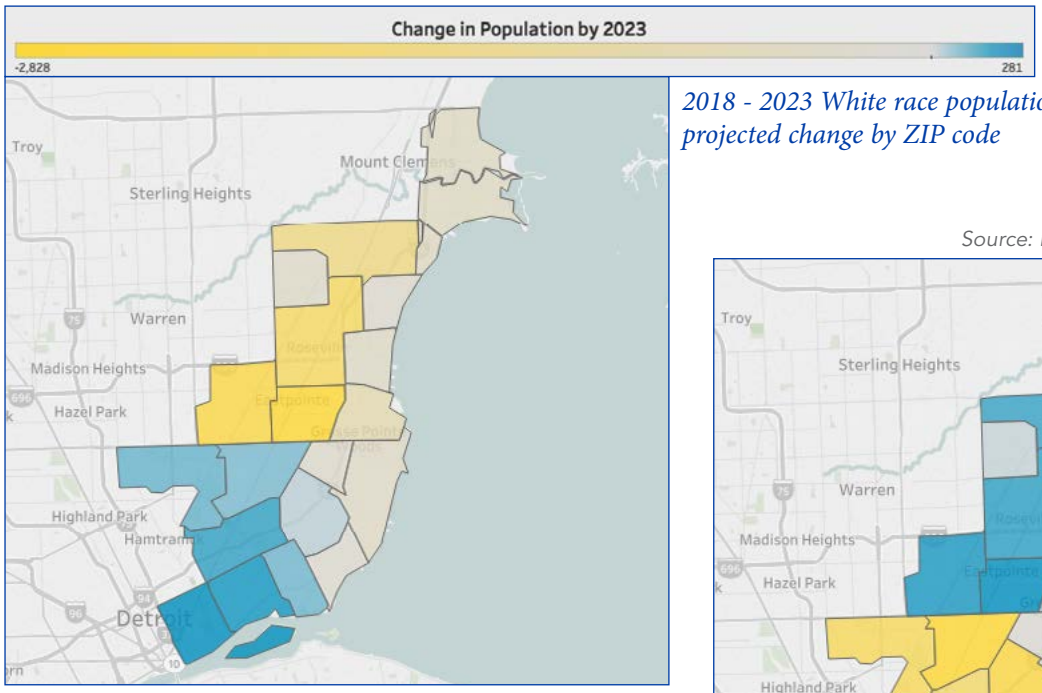
2018 Population by race



2018 Population by ethnicity

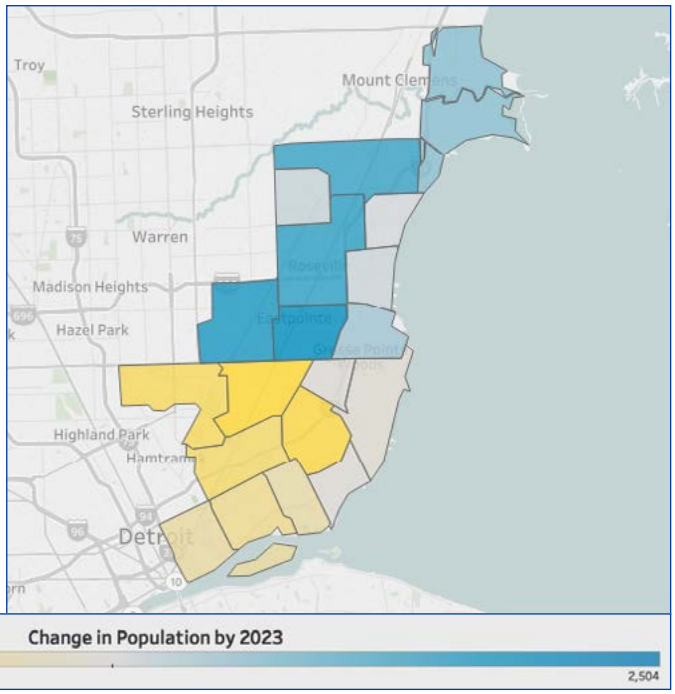


Source: IBM Watson Health / Claritas, 2018



2018 - 2023 White race population projected change by ZIP code

Source: IBM Watson Health / Claritas, 2018

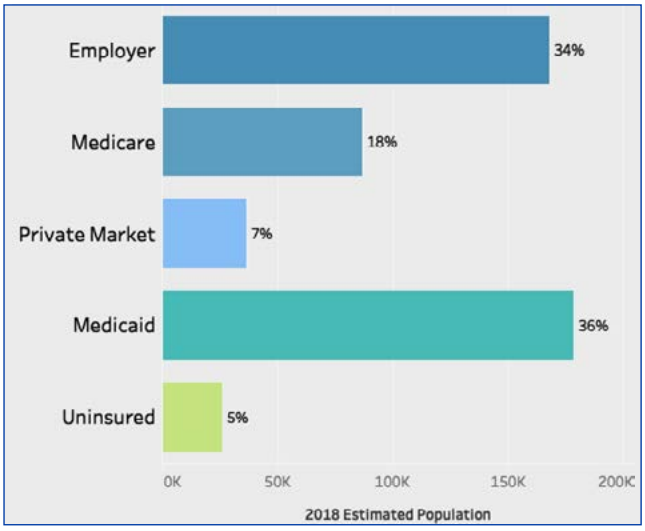


2018 - 2023 Black race population projected change by ZIP code

Source: IBM Watson Health / Claritas, 2018

GROSSE POINTE

2018 Estimated distribution of covered lives by insurance category

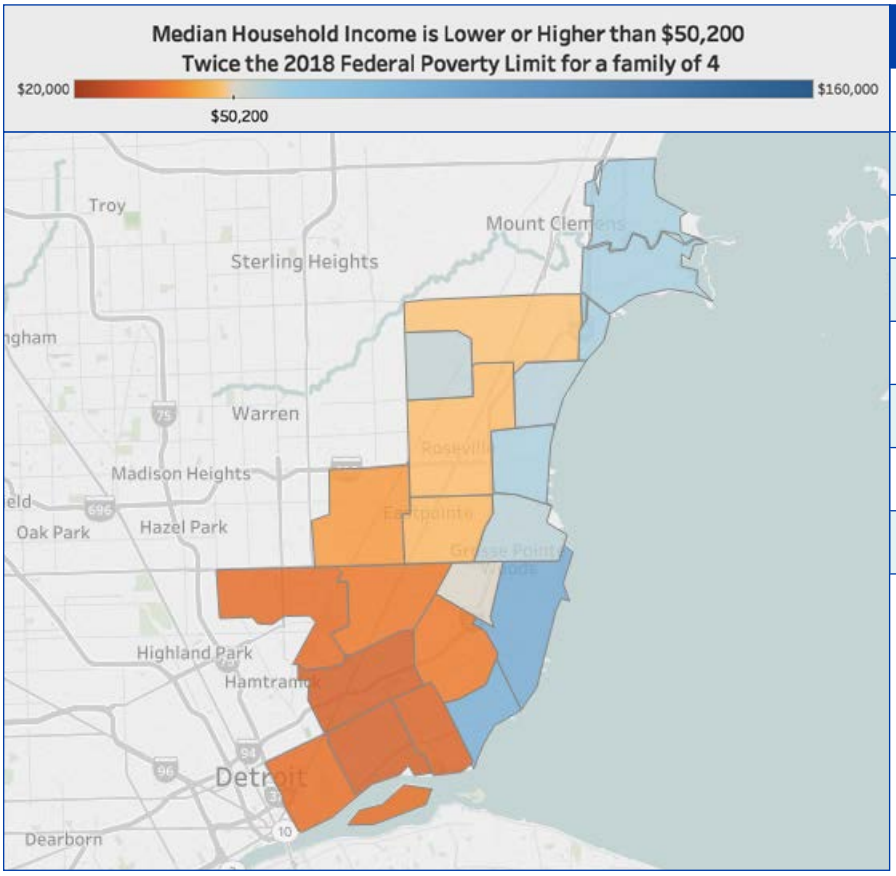


Source: IBM Watson Health / Claritas, 2018

A majority of the population is insured through Medicaid (36%) and employer sponsored health insurance (34%). The remaining population are covered by Medicare (18%), covered through the private market (7%) (the purchasers of coverage directly or through the health insurance marketplace) or are uninsured (5%).

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 range from $23,455 for ZIP code 48213 - Detroit to $104,817 for ZIP code 48236 - Grosse Pointe. There are 12 ZIP codes with median household incomes less than $50,200, twice the 2018 federal poverty limit for a family of four. Eight ZIP codes have median household incomes less than $40,000:

2018 Median household income by ZIP code



Zip Codes	Income
48213 Detroit	**$23,455**
48214 Detroit	**$23,472**
48215 Detroit	**$24,858**
48234 Detroit	**$28,249**
48207 Detroit	**$28,550**
48205 Detroit	**$31,059**
48224 Detroit	**$31,430**
48089 Warren	**$38,085**

Source: IBM Watson Health / Claritas, 2018

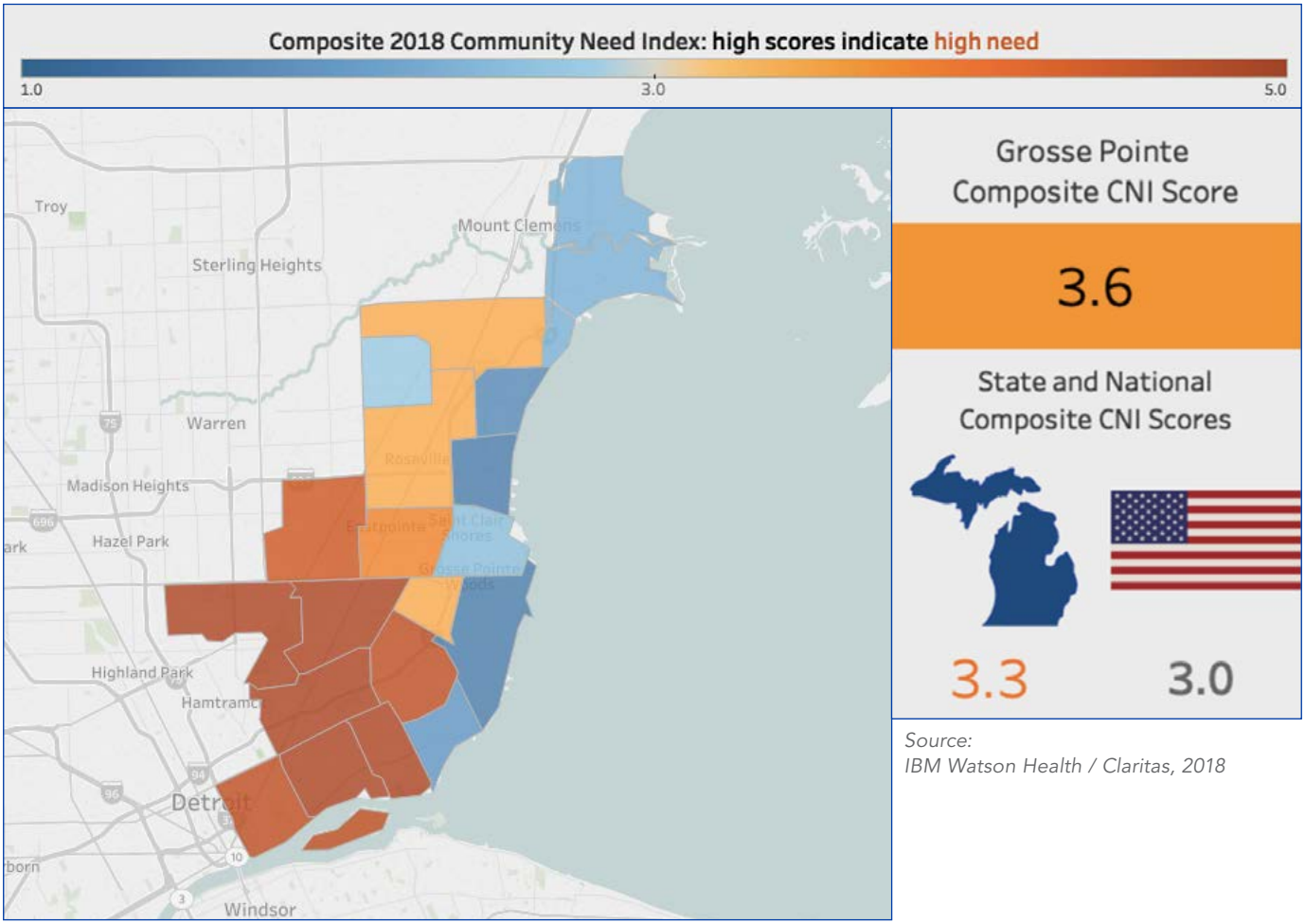
Beaumont, Grosse Pointe

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 score for the community served is 3.6, higher than both the CNI national benchmark of 3.0 and state average of 3.3, potentially indicating greater health care needs in this community.

In all seven of the community's Detroit ZIP codes, the CNI score is greater than 4.5, pointing to potentially more significant health needs among the population. These ZIP codes received scores of 5.0 in three of the five barriers which contribute to the composite CNI score: culture, housing and income.

2018 Community need index by ZIP code



Source:
IBM Watson Health / Claritas, 2018

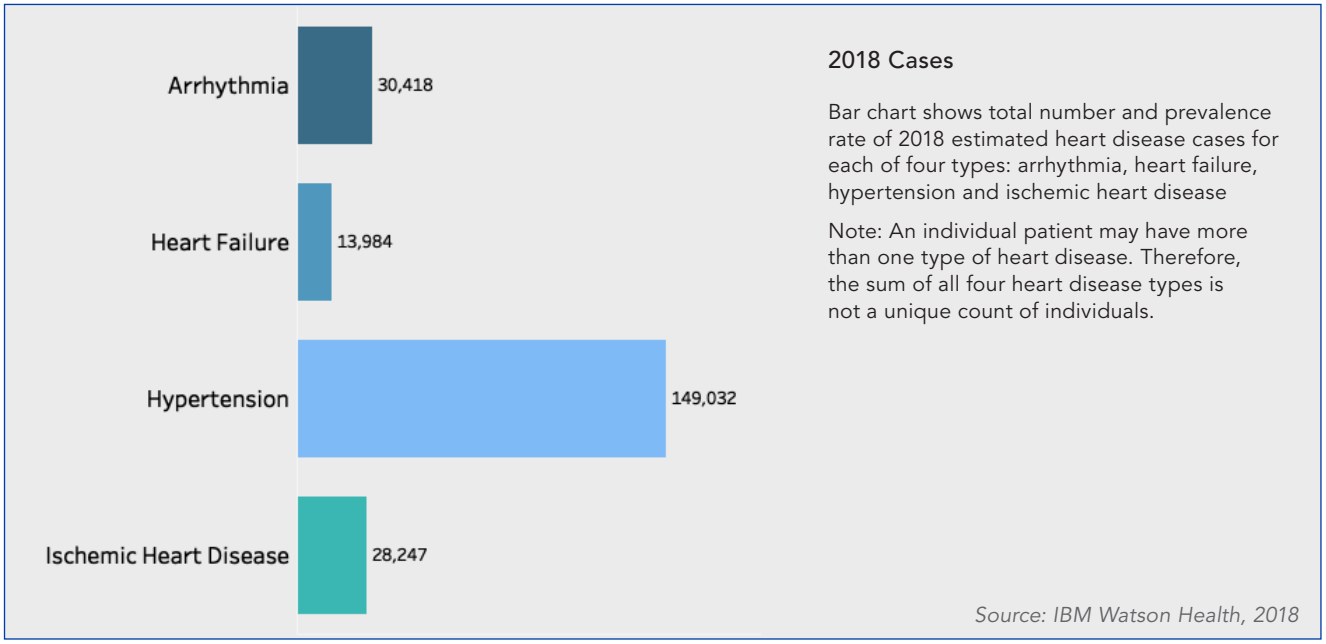
ZIP Map where color shows the community need index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

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 diagnoses; there are over 149,000 estimated cases in the community overall. The 48066 ZIP code of Roseville has the most estimated cases of each heart disease type, likely driven by population size. The 48081 ZIP code of Saint Clair Shores has the highest estimated prevalence rates for arrhythmia (77 cases per 1,000 population), heart failure (36 cases per 1,000 population), hypertension (351 cases per 1,000 population) and ischemic heart disease (75 cases per 1,000 population).

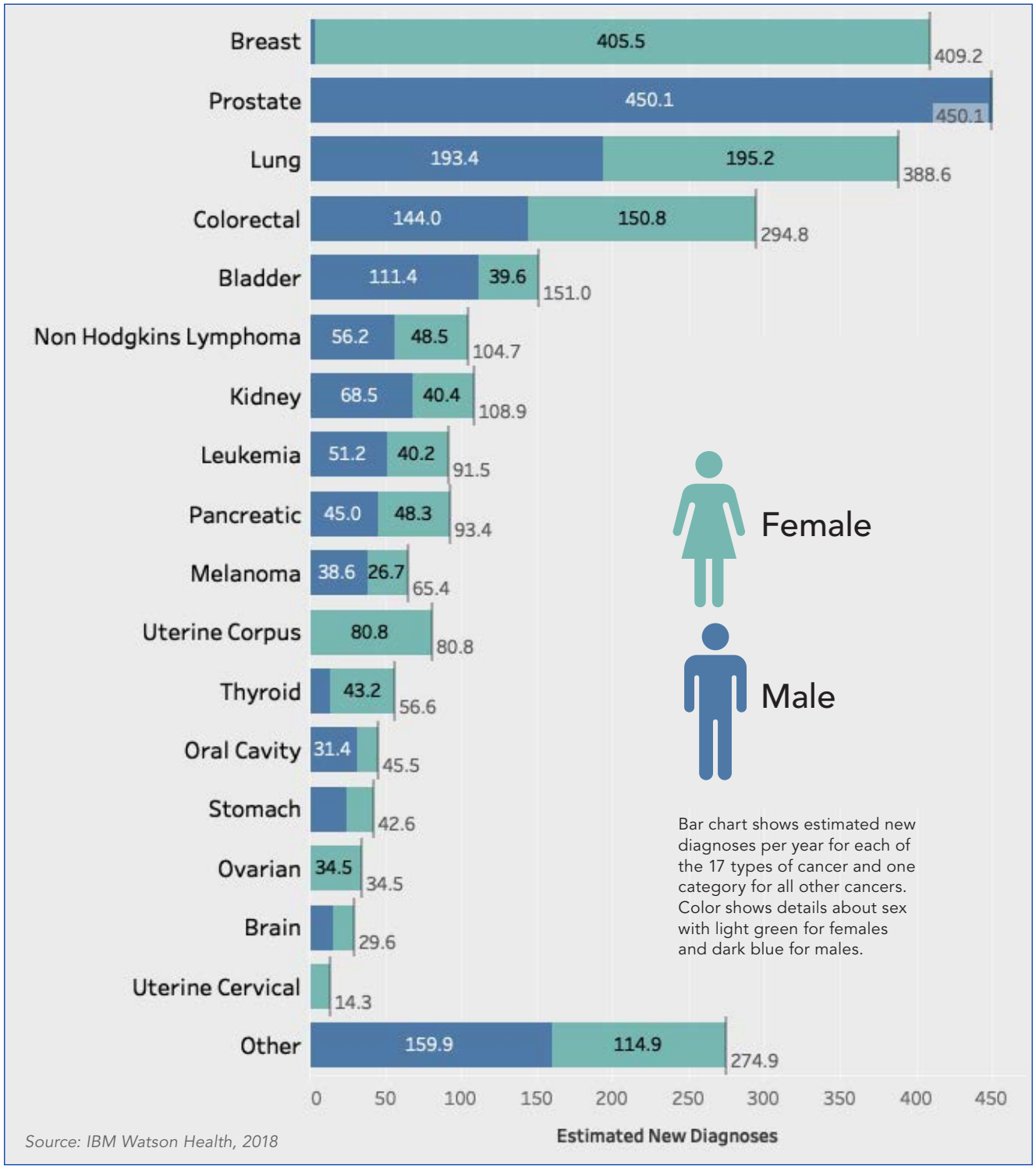
2018 Estimated heart disease cases



Beaumont, Grosse Pointe

For this community, IBM Watson Health's 2018 cancer estimates revealed that cancers estimated to have the greatest number of new cases in 2018 were prostate, breast, lung and colorectal cancers. The cancers projected to have the greatest rate of growth in the next five years were bladder, pancreatic and melanoma, 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	151	166	10.0%
Brain	30	30	2.3%
Breast	409	425	3.8%
Colorectal	295	278	-5.8%
Kidney	109	117	7.5%
Leukemia	91	98	6.7%
Lung	389	408	5.0%
Melanoma	65	71	8.7%
Non-Hodgkin's lymphoma	105	111	6.2%
Oral cavity	45	48	5.3%
Ovarian	35	35	2.5%
Pancreatic	93	102	9.5%
Prostate	450	444	-1.3%
Stomach	43	44	4.5%
Thyroid	57	61	7.0%
Uterine - cervical	14	13	-6.9%
Uterine - corpus	81	86	6.1%
Other	275	294	6.8%
Grand total	**2,736**	**2,831**	**3.5%**

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

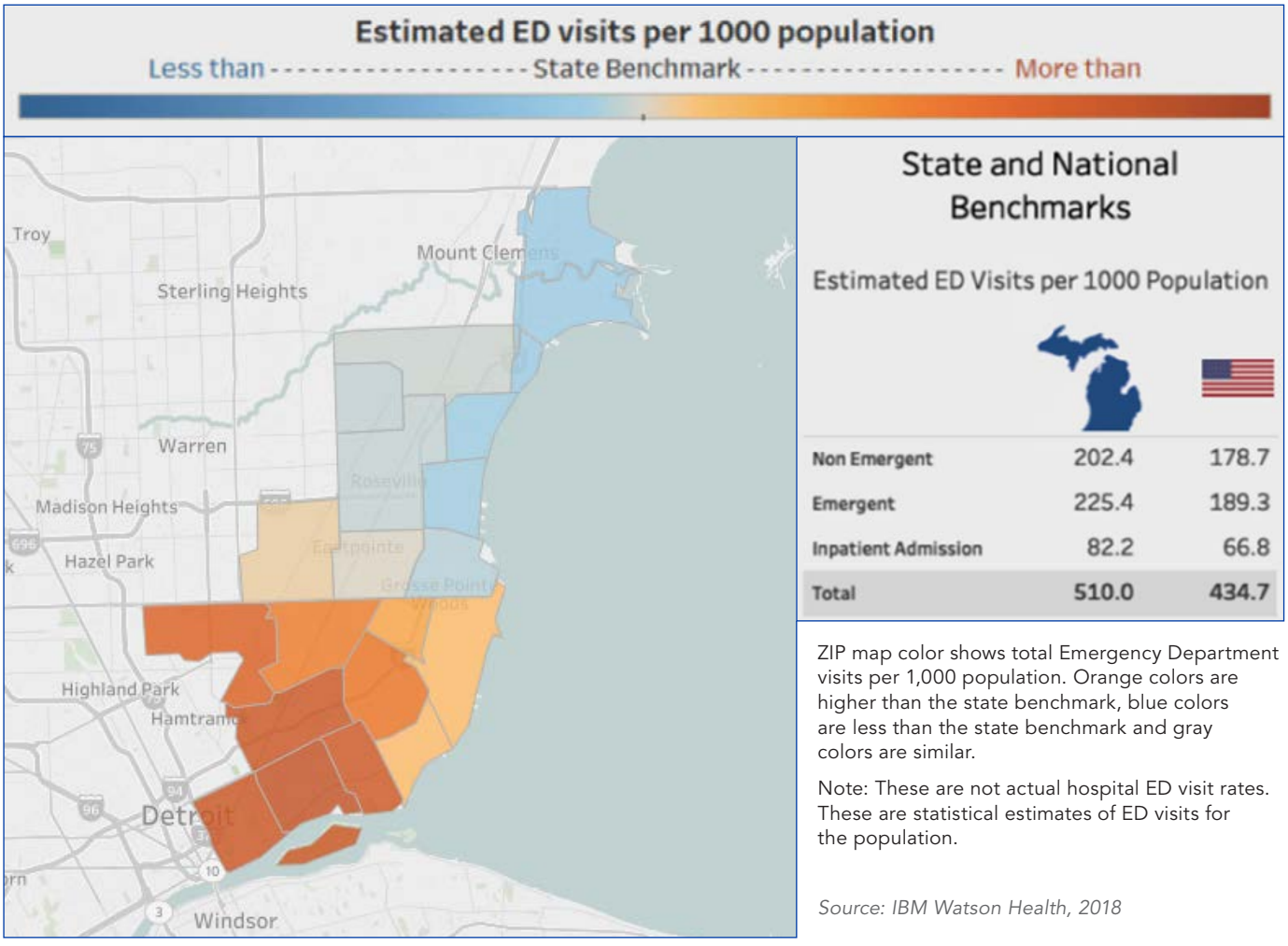
Beaumont, Grosse Pointe

Based on population characteristics and regional utilization rates, IBM Watson Health projected all Emergency Department visits in this community to decrease by 1.4% over the next five years. Although the number of ED visits is projected to decrease slightly, estimated ED use rates in all community ZIP codes were higher than the U.S. benchmark (435 visits per 1,000). Additionally, 12 of the 19 community ZIP codes had higher estimated ED use rates than the Michigan state benchmark (510 visits per 1,000). The highest ED use rates were in seven Detroit ZIP codes: 725.2 to 885.5 ED visits per 1,000 residents.

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 were 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 outpatient 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 estimated non-emergent ED visits to decrease by an average of 4.6% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate

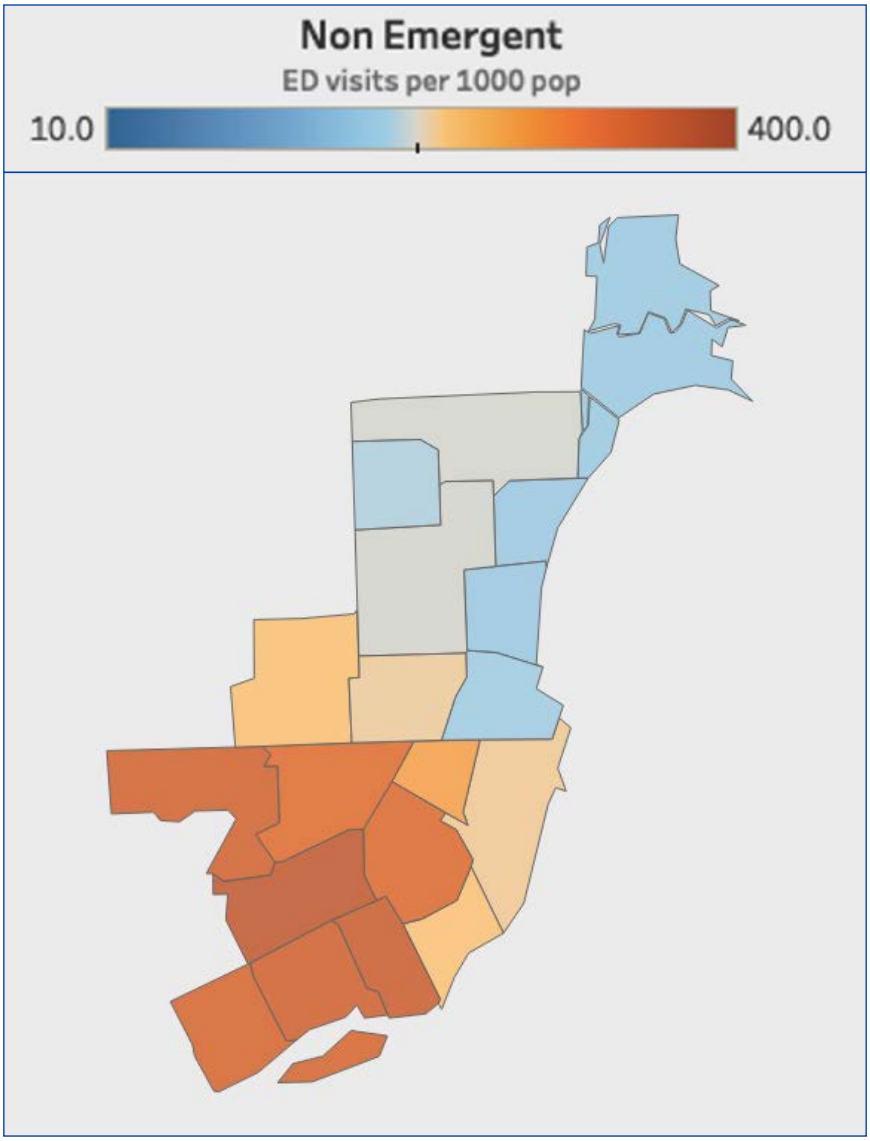


ZIP map color shows total Emergency Department visits per 1,000 population. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark and gray colors are similar.

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 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.

GROSSE POINTE

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 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 cooking demonstrations to equip families with knowledge and skills to prepare healthy meals. • Continue multi-sector Healthy Grosse Pointe and Harper Woods community 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 Eight Dimensions of Wellness program to increase knowledge of healthy lifestyle practices to improve physical and mental health. • Provide education on chronic disease prevention and management through community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Grosse Pointe will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • Healthy Grosse Pointe and Harper Woods coalition • Five cities of Grosse Pointe and Harper Woods • Grosse Pointe Public School System • Harper Woods School District • St. Clair Shores Senior Center • Wayne County Community College
EVALUATION	• Pre/post participant surveys • Partnership agreements • Participation surveys • Restaurants recognized • Community Ambassadors in Eight Dimensions of Wellness
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase percent of physically active adults. • Increase education and opportunities for physical education.
STRATEGIES AND TACTICS	• Implement community-wide walking, wellness and fitness activities to increase physical activity and social interaction across the community. • Support the Healthy Grosse Pointe and Healthy Harper Woods coalitions to improve walkability and bikeability across the community.
COMMITTED RESOURCES	Beaumont, Grosse Pointe will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Six Parks and Recreation Departments • Grosse Pointe Academy • St. Clair Shores Senior Center • Healthy Grosse Pointe and Healthy Harper Woods coalitions
EVALUATION	• Participant surveys • Participation rates • Total miles run

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, Grosse Pointe will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Local churches • Community agencies • Schools • Long-term care facilities
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, Grosse Pointe 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 new incidences of diabetes.
STRATEGIES AND TACTICS	• 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, Grosse Pointe will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• National Kidney Foundation of Michigan • AAA 1-B • Local churches • Libraries • Senior centers • Community organizations
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.
COMMITTED RESOURCES	Beaumont, Grosse Pointe will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies • Universal Health Services
EVALUATION	• Partnership agreements • Patients connected to community resources
Objective #2: Provide education program and services.	
OUTCOME MEASURES	• Increase knowledge and awareness of mental health.
STRATEGIES AND TACTICS	• Implement No Bullying Live Empowered (NoBLE) program to support bullied children and families. • Provide education on mental health through community events, resources and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Grosse Pointe will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Healthy Grosse Pointe and Healthy Harper Woods coalitions • CARES of Southeast Michigan • Common Ground • Local schools • InsideOut Literary Arts
EVALUATION	• Participation rates • Pre/post participant surveys • Unique page views

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Beaumont, Royal Oak

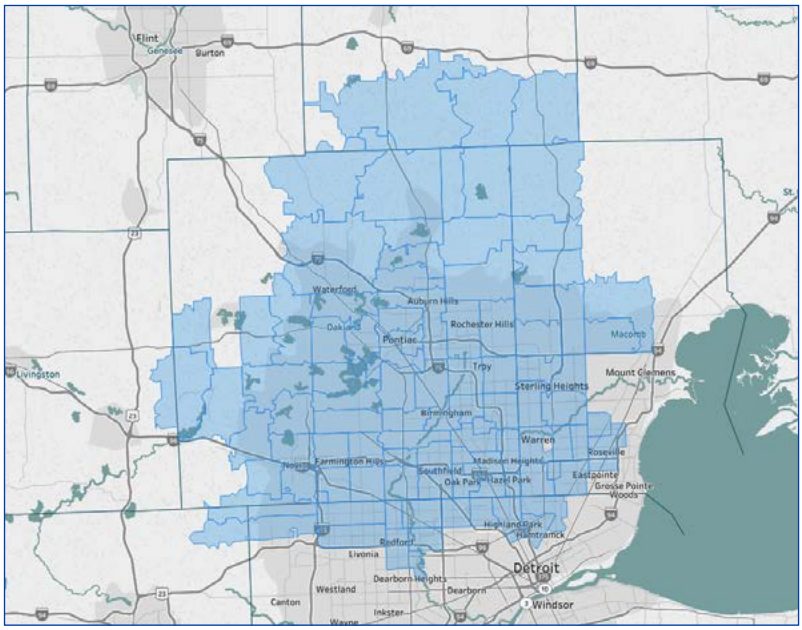
Beaumont, Royal Oak

Beaumont, Royal Oak opened on Jan. 24, 1955. Today it is a major academic and referral center with Level I adult trauma and Level II pediatric trauma designations.

Community served

The Beaumont, Royal Oak community is defined as the contiguous ZIP codes which comprise 80% of inpatient discharges. Below is a map that highlights the community served (in blue) as a portion of the overall Beaumont community. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Royal Oak: Map of community served



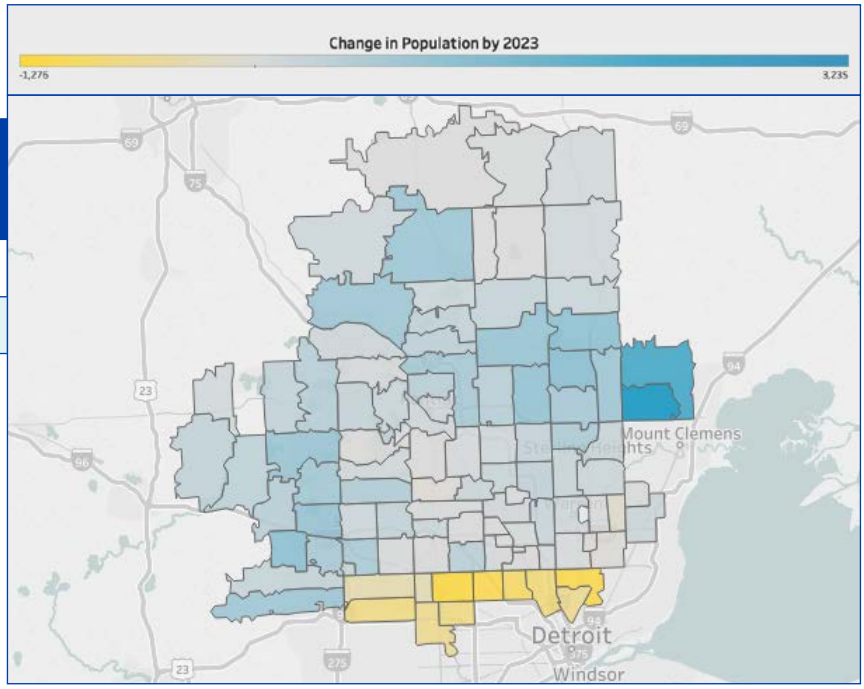
Source: Beaumont Health, 2019

Demographic and socioeconomic summary

The population of the community served is expected to increase 1.2% by 2023, an increase of more than 25,000 people. The community's population increase is slightly higher than Michigan's projected growth rate (0.6%) and is lower than the national projected growth rate (3.5%). Within the community, Macomb is expected to experience the most growth in five years:

Zip Codes	Growth in five years (# of people)
48044 Macomb	**3,235**
48042 Macomb	**2,419**

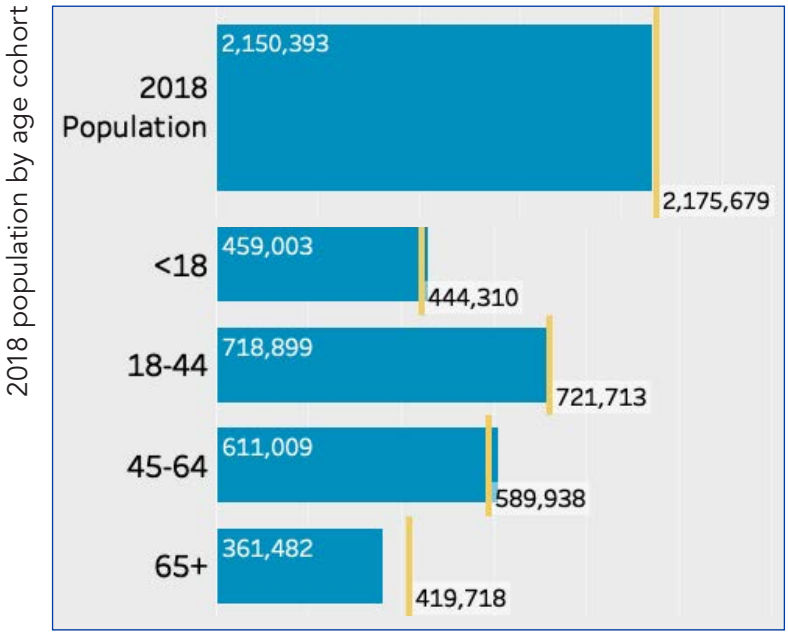
2018 - 2023 Total population projected change by ZIP code

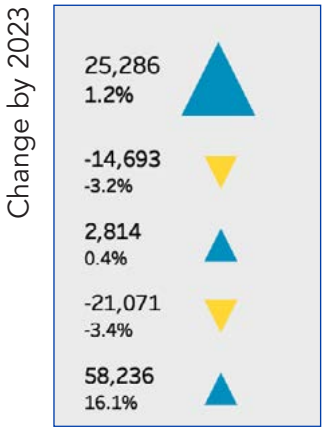


Source:
IBM Watson Health / Claritas, 2018

ROYAL OAK

The community's population skews younger with 33.4% of the population ages 18-44 and 21.3% under age 18. The largest cohort (18-44) is expected to increase by just over 2,800 (0.4%) people by 2023. The age 65-plus cohort, currently the smallest cohort (16.8% of the population), is expected to experience the greatest growth (16.1%) over the next five years, adding 58,236 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.



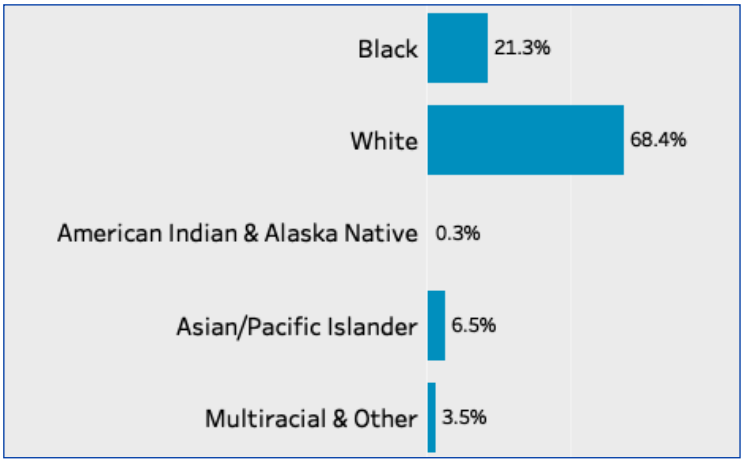


Population distribution by age

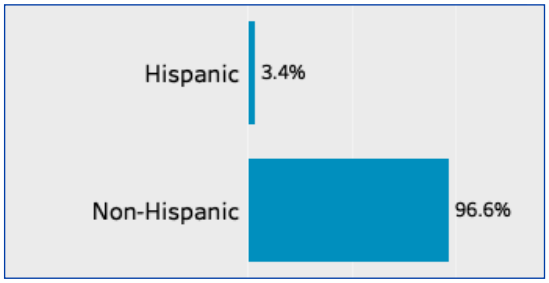
Source: IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The community is predominately white (68.4%) and black (21.3%). The white population is the only racial group projected to decline in the next five years: -1.5% or 21,000 people. The Asian/Pacific Islander racial group is projected to add the newest people to the community (23,224) by 2023, a 16.7% growth rate. In terms of ethnicity, the community is primarily non-Hispanic (96.6%), but the Hispanic population is expected to have a faster growth rate over the next five years (12.8% Hispanic vs. 0.8% non-Hispanic).

2018 Population by race

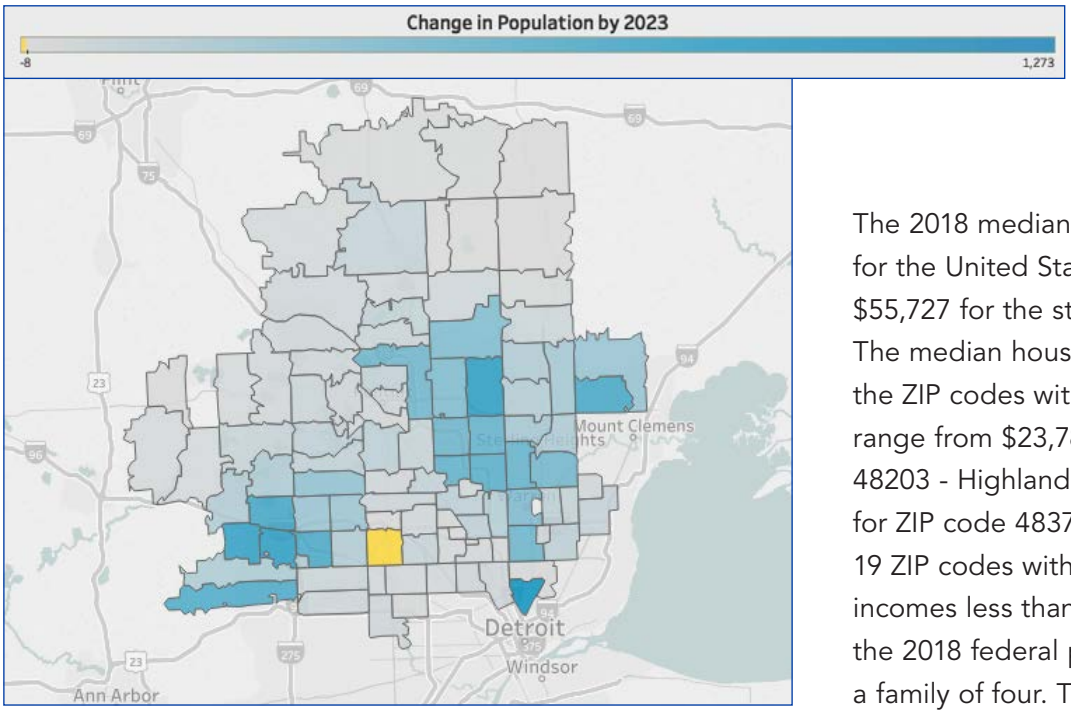


2018 Population by ethnicity



Source: IBM Watson Health / Claritas, 2018

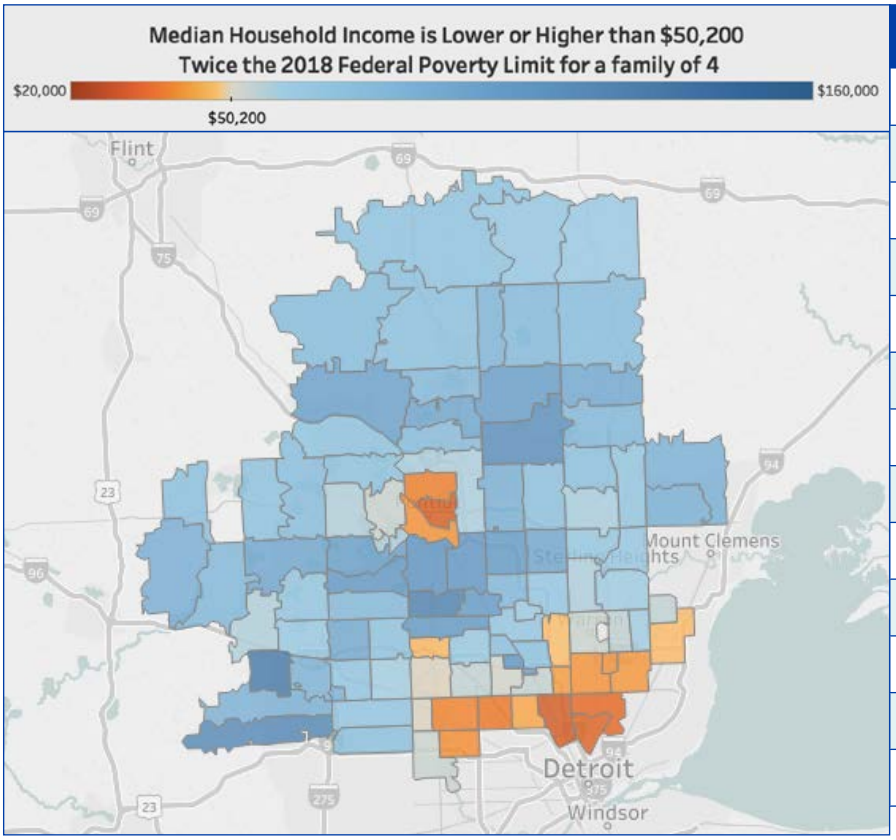
2018 - 2023 Asian/Pacific Islander race population projected change by ZIP code



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 range from $23,782 for ZIP code 48203 - Highland Park to $161,301 for ZIP code 48374 - Novi. There are 19 ZIP codes with median household incomes less than $50,200, twice the 2018 federal poverty limit for a family of four. Thirteen ZIP codes have median household incomes less than $40,000:

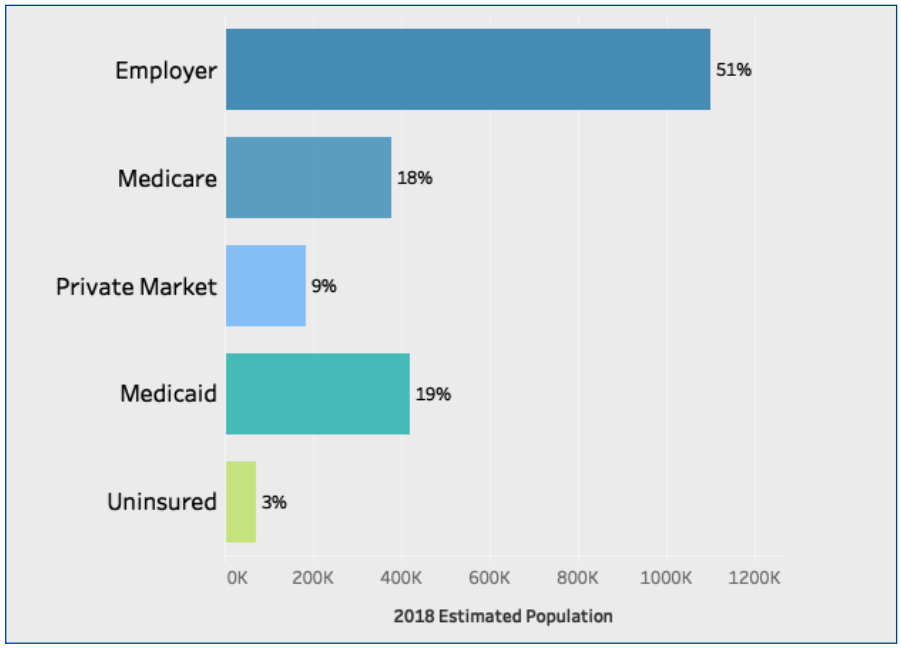
2018 Median household income by ZIP code



Zip Codes	Income
48203 Highland Park	**$23,782**
48342 Pontiac	**$24,311**
48212 Hamtramck	**$26,312**
48234 Detroit	**$28,249**
48235 Detroit	**$31,449**
48340 Pontiac	**$33,322**
48219 Detroit	**$34,018**
48223 Detroit	**$35,961**
48015 Center Line	**$36,752**
48341 Pontiac	**$36,829**
48091 Warren	**$36,939**
48089 Warren	**$38,085**
48030 Hazel Park	**$38,646**

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 (51%) are insured through employer sponsored health coverage, higher than Michigan (47%) and the United States (46%). Of the remaining population, 19% are covered by Medicaid, 18% by Medicare and 9% by private market insurance (the purchasers of coverage directly or through the health insurance marketplace) and 3% are uninsured. Royal Oak's uninsured rate (3.0%) was lower than Michigan's (3.8%) and much lower than the national rate of 9.4%.

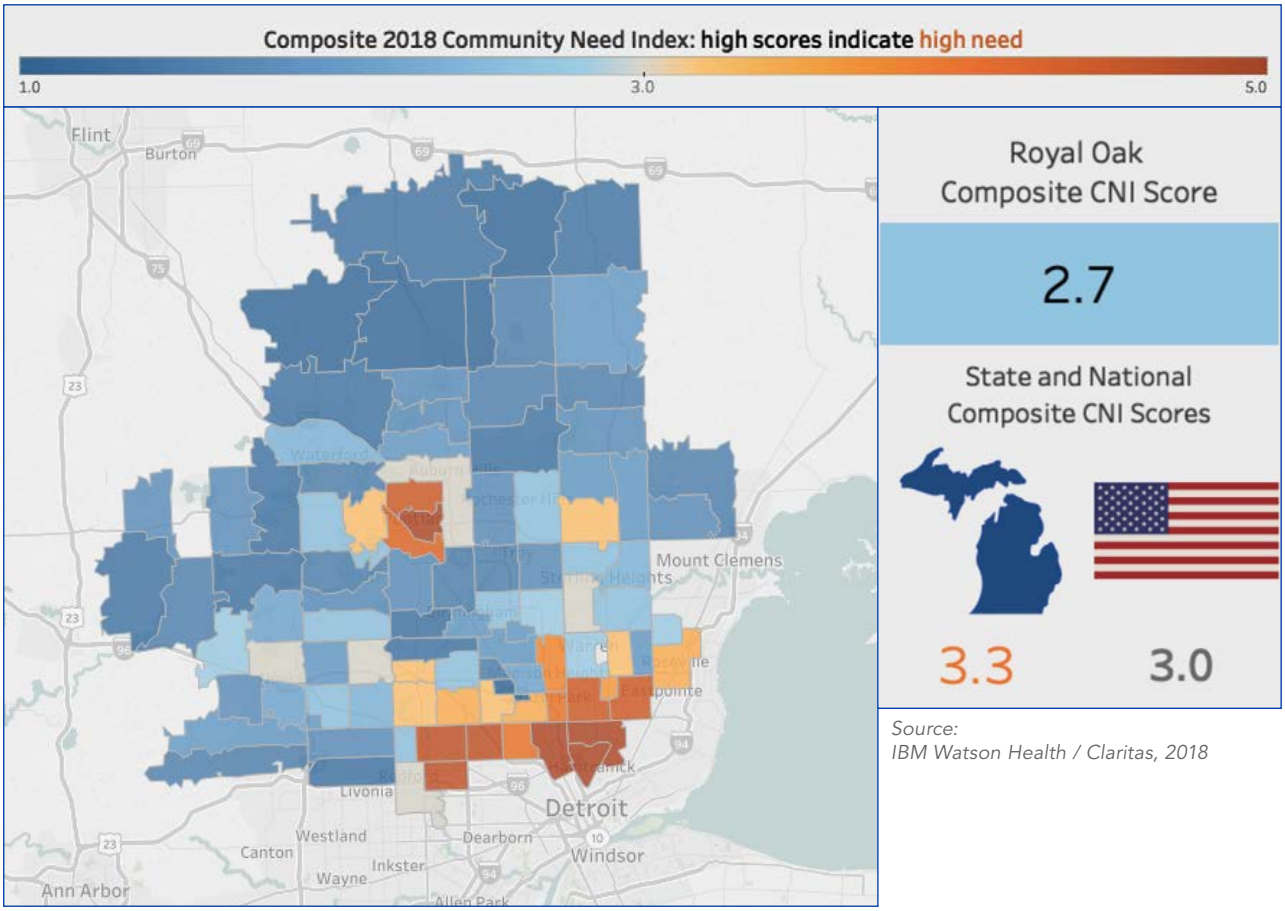
Beaumont, Royal Oak

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 composite CNI score for the community served is 2.7, lower than the CNI national benchmark score of 3.0 and state average of 3.3, potentially indicating fewer health care needs in this community.

In the Royal Oak community, about 70% of ZIP codes have a composite CNI score of less than 3.0. Despite indicating overall lower need, the community contained pockets of high need. Seven ZIP codes (48203 - Highland Park, 48212 - Hamtramck, 48219 - Detroit, 48223 - Detroit, 48234 - Detroit, 48235 - Detroit and 48342 - Pontiac) have composite CNI scores greater than 4.5, pointing to potentially more significant health needs among those populations. These communities have scores of 5.0 in three of the five barriers scores that comprise the CNI composite score: culture, housing and income.

2018 Community need index by ZIP code



Source:
IBM Watson Health / Claritas, 2018

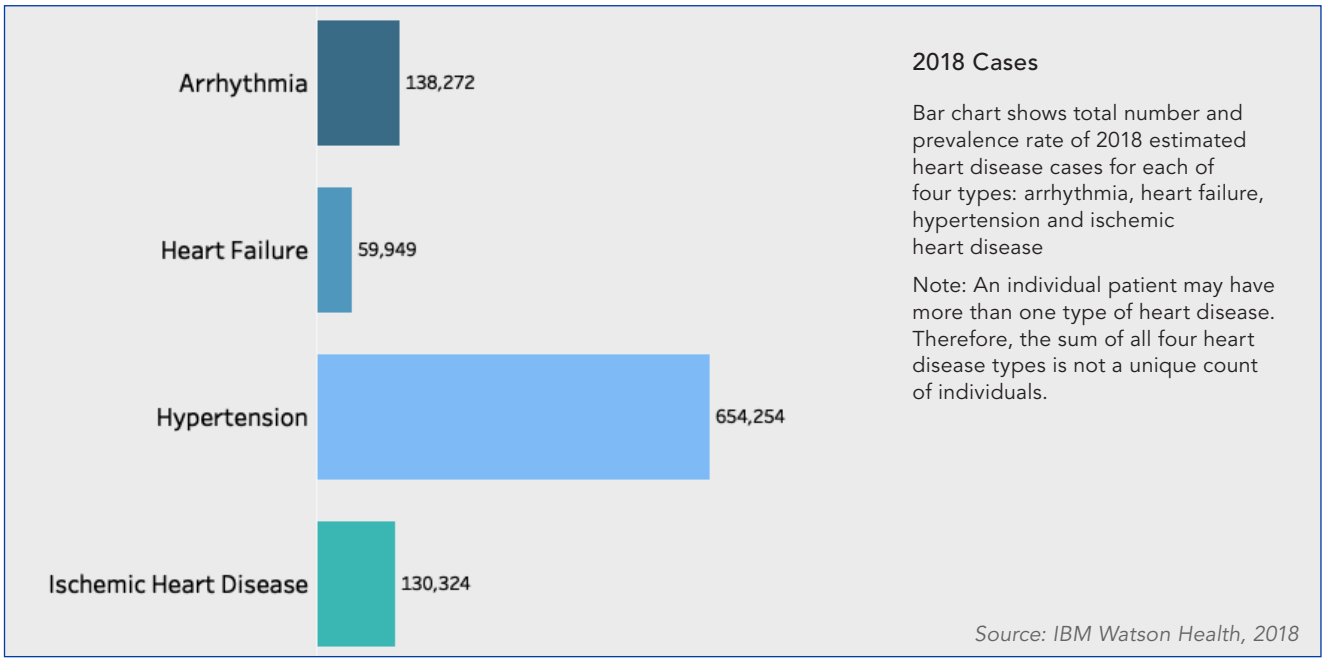
ZIP Map where color shows the Community Need Index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

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.

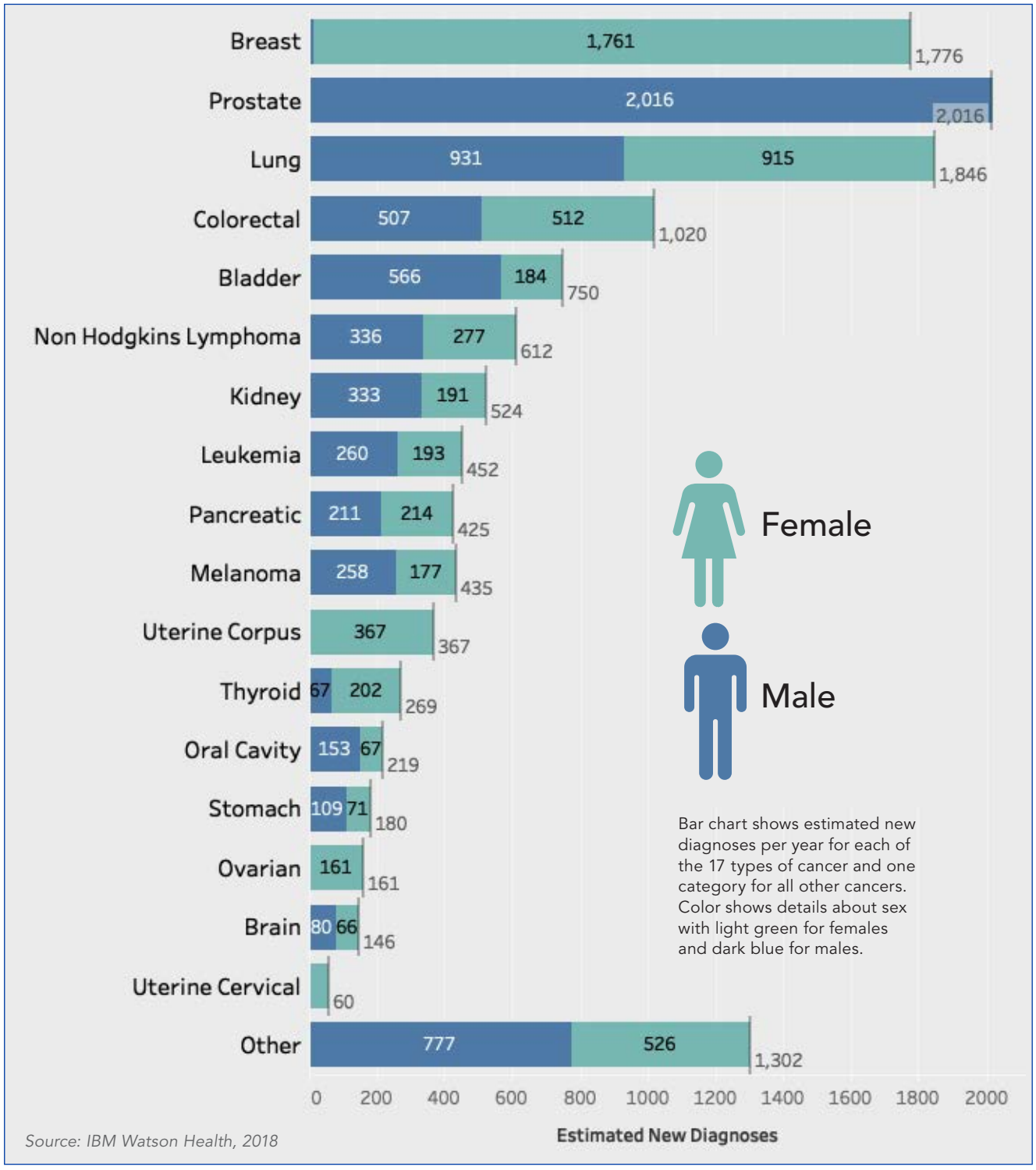
IBM Watson Health heart disease estimates identified hypertension as the most prevalent heart disease diagnoses; there are more than 650,000 estimated cases in the community overall. The 48044 ZIP code of Macomb has the most estimated cases of each heart disease type due primarily to population size. Bloomfield Hills (ZIP codes 48304 and 48302) has the highest estimated prevalence rates for arrhythmia (96 cases and 91 cases per 1,000 population), heart failure (40 cases and 38 cases per 1,000 population), hypertension (378 cases and 365 cases per 1,000 population) and ischemic heart disease (96 cases and 91 cases per 1,000 population).

2018 Estimated heart disease cases



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

2018 Estimated new cancer cases



Source: IBM Watson Health, 2018

Estimated cancer cases and projected five-year change by type

Cancer type	2018 Estimated new cases	2023 Estimated new cases	5-year growth (%)
Bladder	750	835	11.36%
Brain	146	153	4.52%
Breast	1,776	1,885	6.13%
Colorectal	1,020	962	-5.66%
Kidney	524	572	9.28%
Leukemia	452	492	8.73%
Lung	1,846	1,973	6.86%
Melanoma	435	482	10.89%
Non-Hodgkin's lymphoma	612	666	8.78%
Oral cavity	219	237	8.29%
Ovarian	161	169	4.73%
Pancreatic	425	476	11.84%
Prostate	2,016	2,024	0.37%
Stomach	180	191	5.98%
Thyroid	269	296	10.21%
Uterine - cervical	60	58	-2.46%
Uterine - corpus	367	396	8.03%
Other	1,302	1,421	9.15%
Grand total	**12,561**	**13,289**	**5.79%**

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

Beaumont, Royal Oak

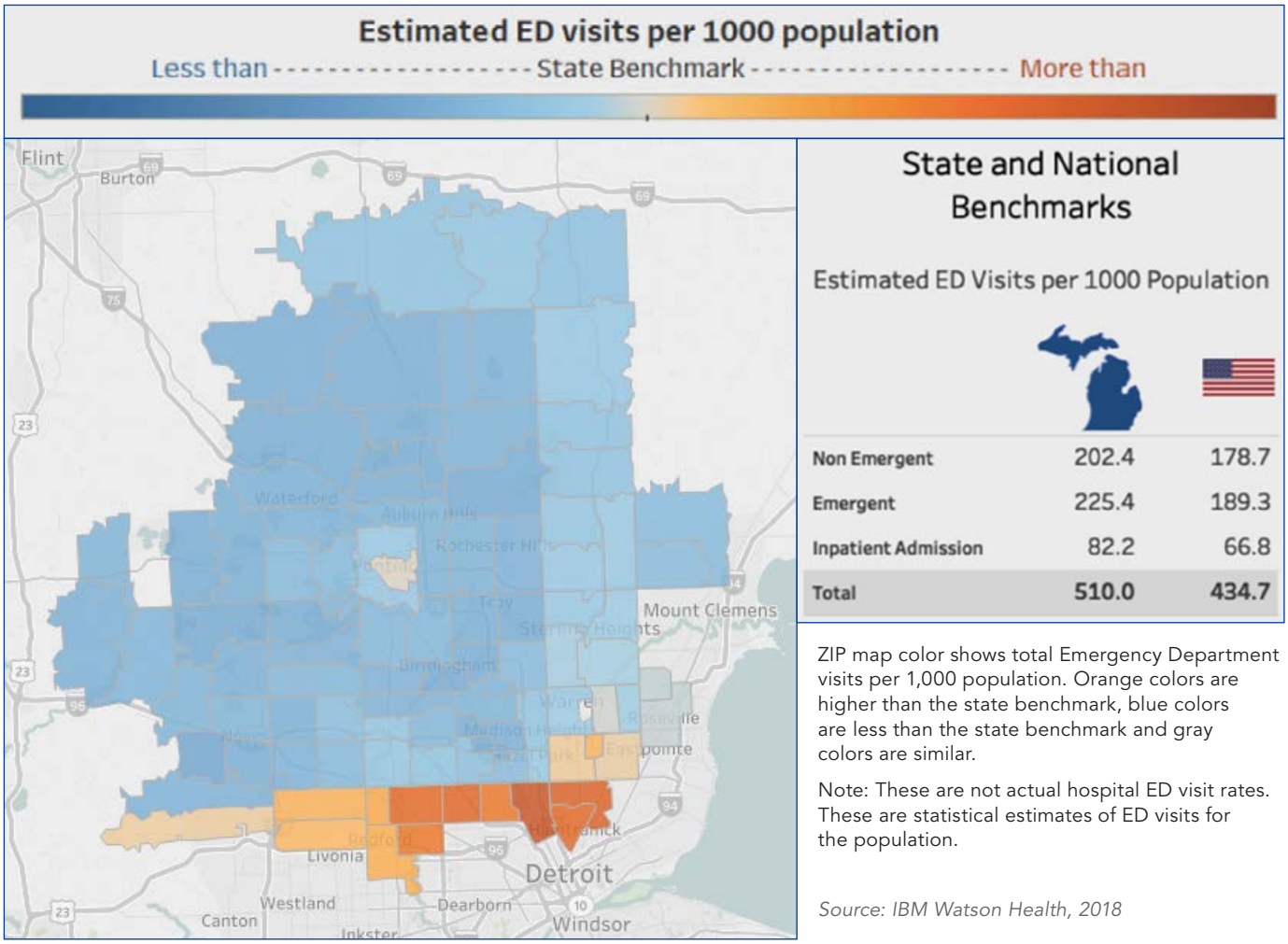
Based on population characteristics and regional utilization rates, IBM Watson Health projected all Emergency Department visits in this community to increase by 1.8% over the next five years.

Estimated ED use rates for Michigan and the U.S. are 510 visits and 435 visits per 1,000 respectively. The highest ED use rates were in ZIP codes 48203 - Highland Park (874.9 per 1,000), 48234 - Detroit (809.5 per 1,000) and 48235 - Detroit (794.0 per 1,000). The ED use rate in Highland Park is more than twice the U.S. benchmark and 72% higher than the Michigan state benchmark.

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 were 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 outpatient 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 estimated non-emergent ED visits to decrease by an average of 2.0% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate



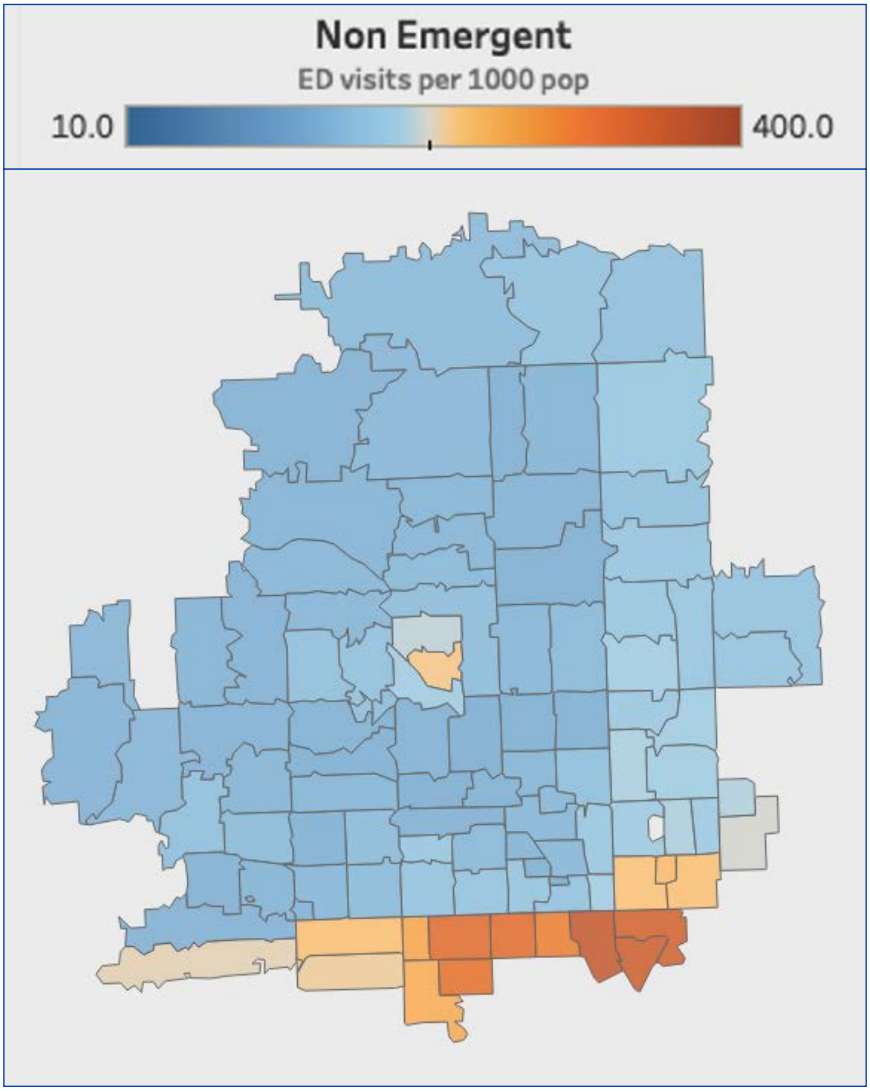
Non Emergent	202.4	178.7
Emergent	225.4	189.3
Inpatient Admission	82.2	66.8
Total	**510.0**	**434.7**

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 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, cooking classes for children, grocery store tours and food demonstrations to equip families with knowledge and skills to prepare healthy meals. • Explore designation of a multi-sector Healthy Community coalition. • Engage stakeholders and partners to identify opportunities to collaborate on policy, systems, and environmental change for health improvement planning opportunities. • Explore strategies and partner collaborations to increase access to fresh fruits and vegetables and reducing food insecurity. • Provide education on chronic disease prevention and management through community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Royal Oak will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • City and school districts • Local municipalities • Local school systems • Oakland County Health Division
EVALUATION	• Pre/post participant surveys • Partnership agreements
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase percent of physically active adults. • Increase education and opportunities for physical education.
STRATEGIES AND TACTICS	• Implement community wide walking programs such as Wellness Walk & Talk, Neighborhood Walking Groups, mall walking and community walk events to increase physical activity and social interaction across the community. • Provide custom and adaptive bikes for kids with special needs. • Provide training for physical education teachers to implement the Coordinated Approach to Child Health (CATCH) physical education nutrition and physical activity program. • Implement the program A Matter of Balance: Managing Concerns About Falls to support physical activity among older adults.
COMMITTED RESOURCES	Beaumont, Royal Oak will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Oak Park and Royal Oak Parks and Recreation departments • Oakland Mall • Southfield School District • Oak Park School District • Ferndale School District • South Lyon School District
EVALUATION	• Physical Education teacher evaluation surveys • Walking log metrics • Up and Go Test • Pre/post participant surveys • 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. • Provide support programs including nutrition heart healthy classes, education on behavior change, Beaumont Quit Smoking Program and Guiding Hearts Support Group for prevention and management of cardiac conditions. • Implement and promote the availability of the Women Exercising to Live Longer (WELL) Program to increase physical activity and reduce cardiovascular disease risk factors. • Mentor and assist schools in attaining the state Heart Safe School designation and provide AED equipment as needed.
COMMITTED RESOURCES	Beaumont, Royal Oak 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 screening 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, Royal Oak will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Local churches • Schools • Community agencies
EVALUATION	• Pre/post participant surveys • Screening results • Participation rates

*Please see next page for Priority #1, **Goal #3:** Decrease rate of new diabetes cases and of diabetes complications.*

Priority #1 *cont.*

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

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 new incidences of diabetes.
STRATEGIES AND TACTICS	• Provide the Diabetes PATH chronic disease self-management program. Explore implementation of online version. • Provide support groups for those with diabetes and their caregivers. • Implement the National Diabetes Prevention Program for adults with pre-diabetes or at high risk for diabetes.
COMMITTED RESOURCES	Beaumont, Royal Oak will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• National Kidney Foundation of Michigan • Area Agency on Aging 1-B • Local churches • Libraries • Senior centers • Community organizations
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. • Increase referral linkages for mental health and substance use disorders.
STRATEGIES AND TACTICS	• Support partnerships to improve integration of health care and community-based mental health services. • Improve access and coordination of services for substance abuse disorder through creating multidisciplinary care teams using community peer recovery coaches and linking individuals to community resources.
COMMITTED RESOURCES	Beaumont, Royal Oak will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• CARE of Southeast Michigan • Community mental health agencies • Universal Health Services
EVALUATION	• Partnership agreements • Patients connected to community resources
Objective #2: Provide education program and services..	
OUTCOME MEASURES	• Increase knowledge and awareness of mental health.
STRATEGIES AND TACTICS	• Implement mindfulness classes to address anxiety, depression, stress and chronic pain. • Provide education on mental health through community events and Beaumont Speakers Bureau. • Implement No Bullying Live Empowered (NoBLE) program to support bullied children and families
COMMITTED RESOURCES	Beaumont, Royal Oak will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Common Ground • Local schools
EVALUATION	• Perceived Stress Scale • Self-Compassion Scale • Qualitative measures • Participant rates • Participation surveys

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Beaumont, Taylor

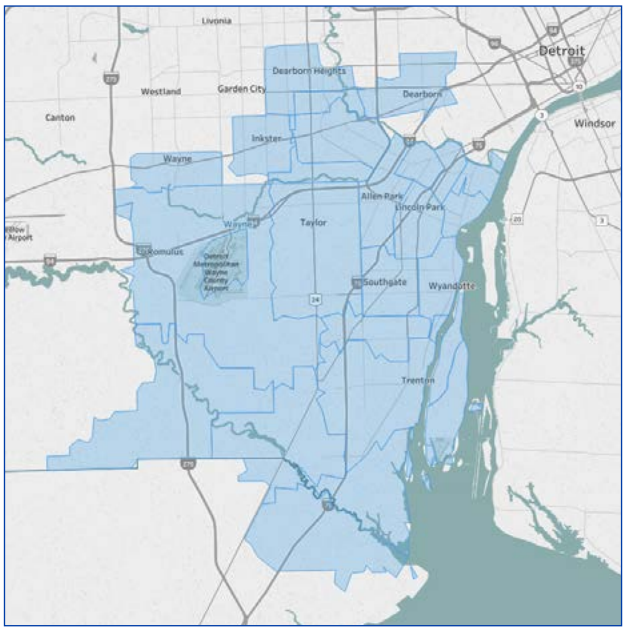
Beaumont, Taylor

Beaumont, Taylor opened its doors in 1977. It became part of Beaumont Health in September 2014. This hospital provides specialty health care services with outstanding service for residents of Taylor and surrounding communities, including 24/7 emergency care, speech/language pathology and audiology, a pain management clinic, orthopedic surgery, mental health services, physical medicine and inpatient rehabilitation and full-service radiology with advanced CT and MRI.

Community served

The Beaumont, Taylor community 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. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Taylor: Map of community served



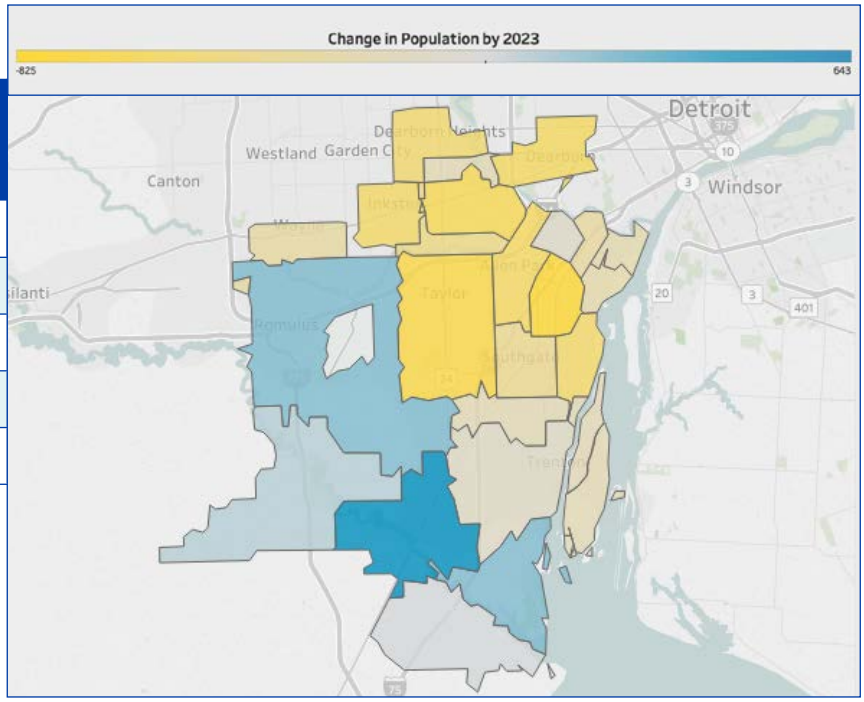
Source: Beaumont Health, 2019

Demographic and socioeconomic summary

The population of the community served is expected to decrease 1.2% by 2023, a decline of almost 6,800 people. The community's population decline contrasts with the slight growth rate projected for Michigan (0.6%) and the higher national projected growth rate (3.5%). Within the community, only five ZIP codes are expected to experience the growth in the next five years:

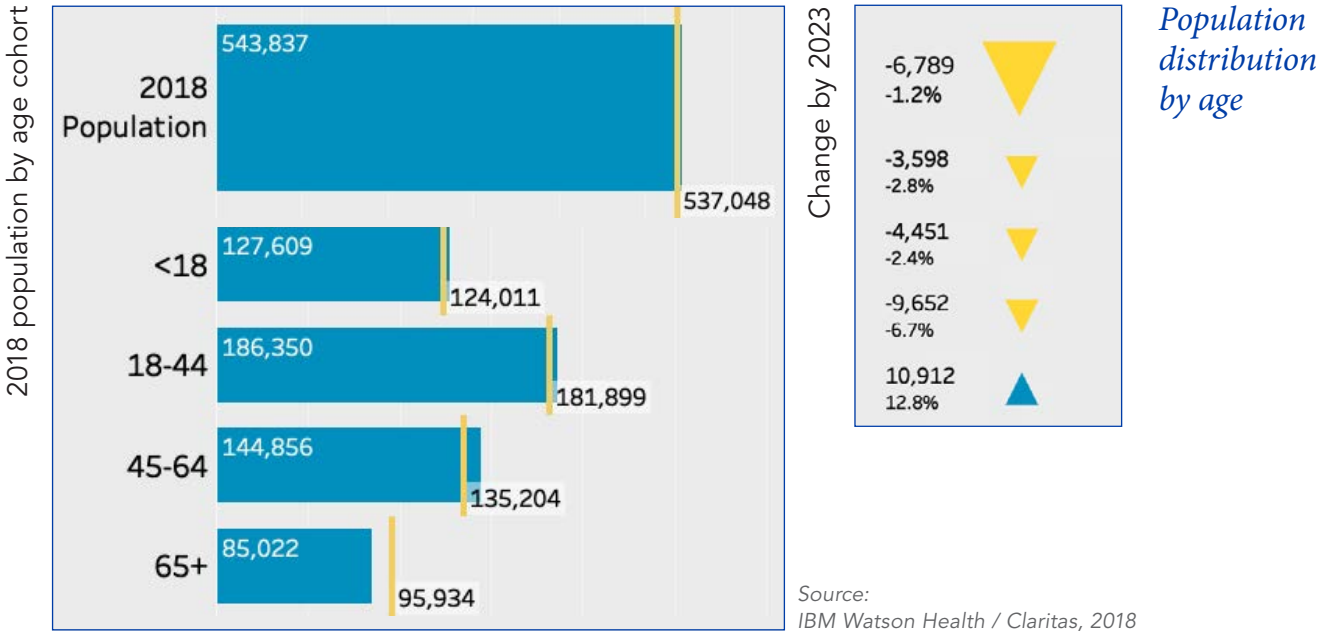
Zip Codes	Growth in five years (# of people)
48134 Flat Rock	**643**
48174 Romulus	**249**
48173 Rockwood	**245**
48164 New Boston	**97**
48179 South Rockwood	**18**

2018 - 2023 Total population projected change by ZIP code



Source: IBM Watson Health / Claritas, 2018

The community's population skews just slightly younger with 34.3% of the population ages 18-44 and 23.5% under age 18. The largest cohort (18-44) is expected to decrease by 4,451 people by 2023 and the age 65-plus cohort (the smallest at 15.6% of the population) is the only age group expected to experience growth (12.8%) over the next five years, adding 10,912 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

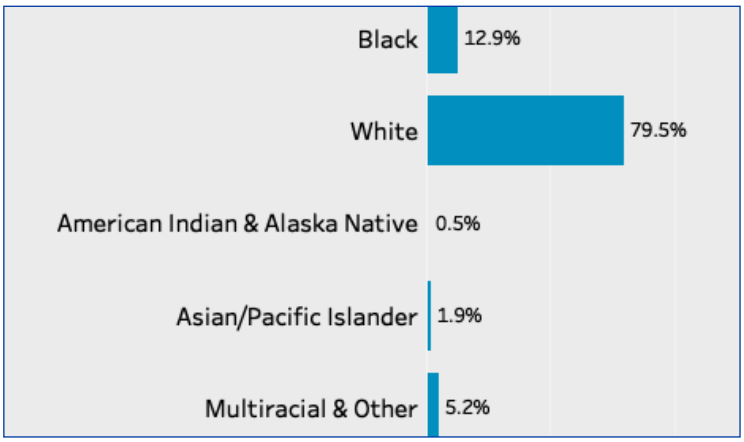


Population distribution by age

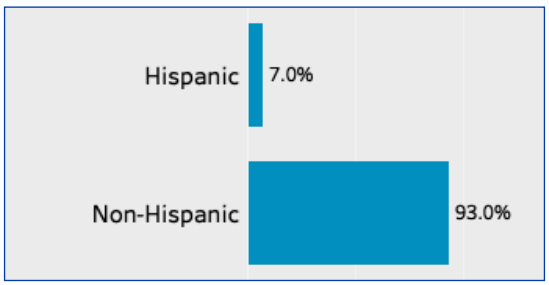
Source:
IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The community is predominately white (79.5%) with the black population being the next largest racial group (12.9%). Both of these groups are projected to decline in the next five years (1.1% and 7.1% respectively) resulting in a total decline of 9,617 people from these population groups. Other racial groups in the community, while smaller, are projected to have growth in the next five years; Asian/Pacific Islander (10.4%, 1,081 people) and multi-racial (3.2%, 543 people). In terms of ethnicity (all races), the non-Hispanic population is dominant (93.0%) but is projected to decline by 2.0% (9,956 people) in five years. Meanwhile the smaller non-Hispanic population is expected to grow by almost 3,200 people (8.4%) by 2023.

2018 Population by race



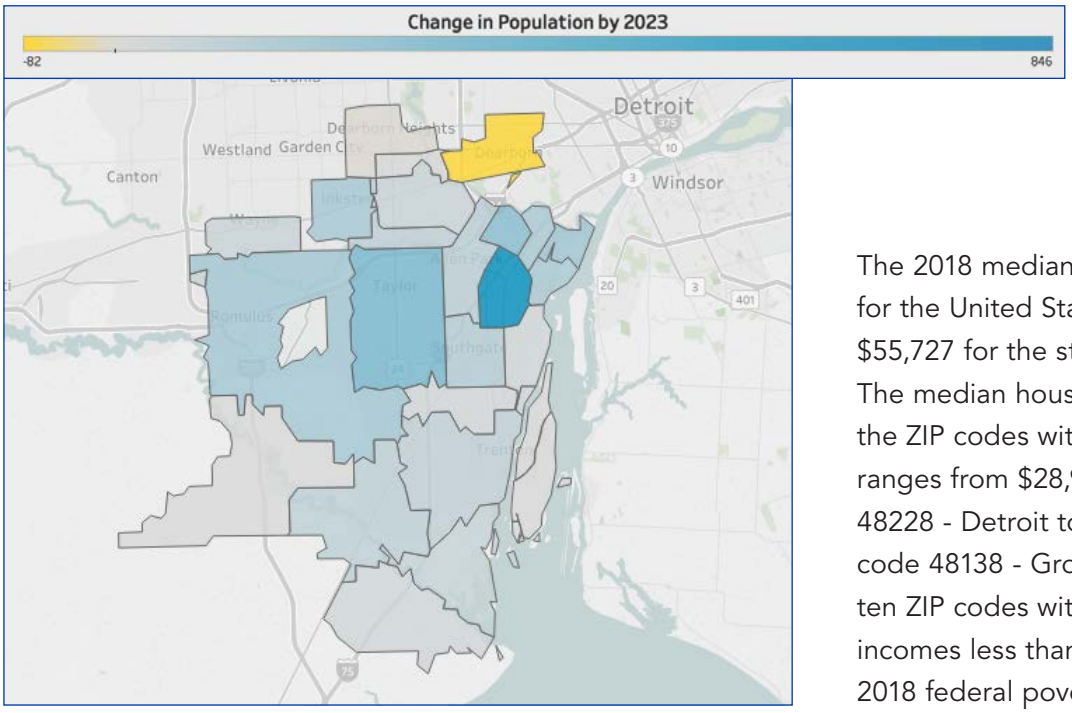
2018 Population by ethnicity



Source: IBM Watson Health / Claritas, 2018

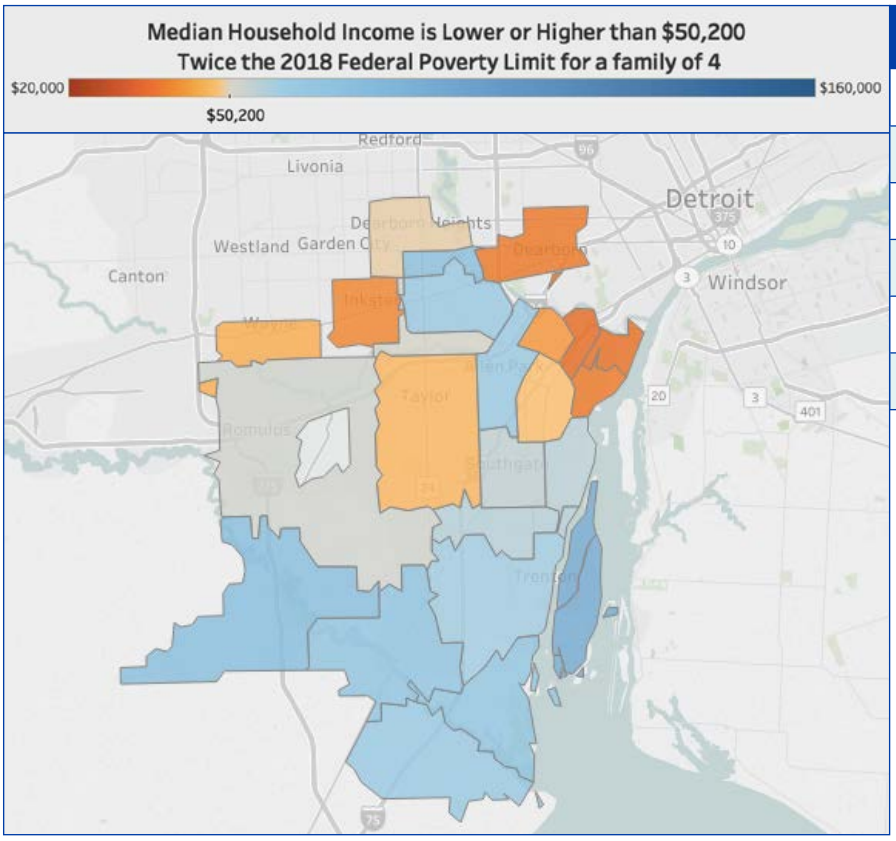
Beaumont, Taylor

2018 - 2023 Hispanic ethnicity population projected change by ZIP code



Source: IBM Watson Health / Claritas, 2018

2018 Median household income by ZIP code

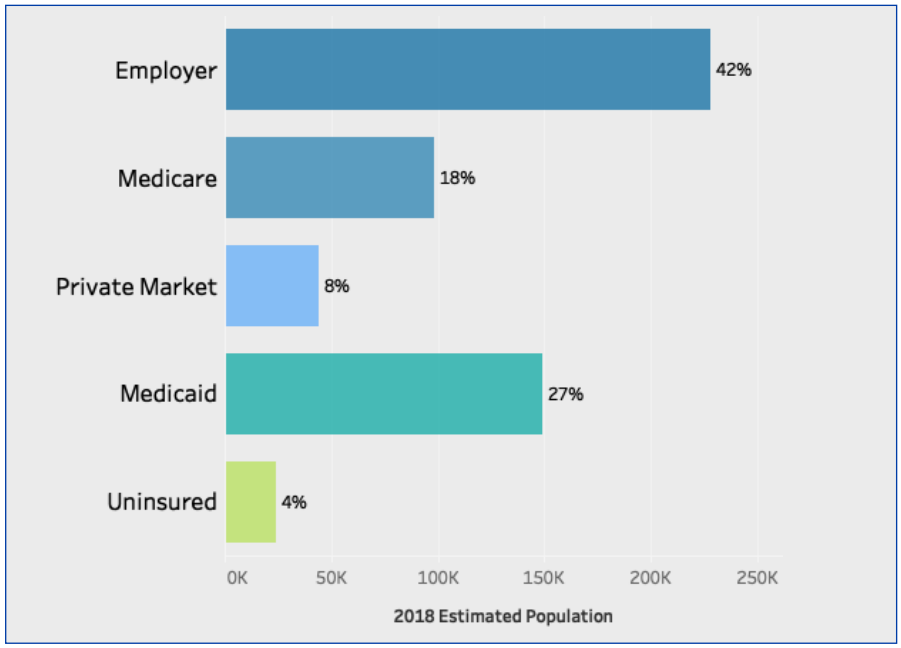


The 2018 median household income for the United States is $62,175 and $55,727 for the state of Michigan. The median household income for the ZIP codes within this community ranges from $28,916 for ZIP code 48228 - Detroit to $104,367 for ZIP code 48138 - Grosse Ile. There are ten ZIP codes with median household incomes less than $50,200, twice the 2018 federal poverty limit for a family of four. Six ZIP codes have median household incomes less than $40,000:

Zip Codes	Income
48217 Detroit	**$28,916**
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 (42%) are insured through employer sponsored health coverage, followed by those with Medicaid (27%) and Medicare (18%). The remainder of the population is divided between those with private market insurance (8%) (purchasers of coverage directly or through the health insurance marketplace) and the uninsured (4%).

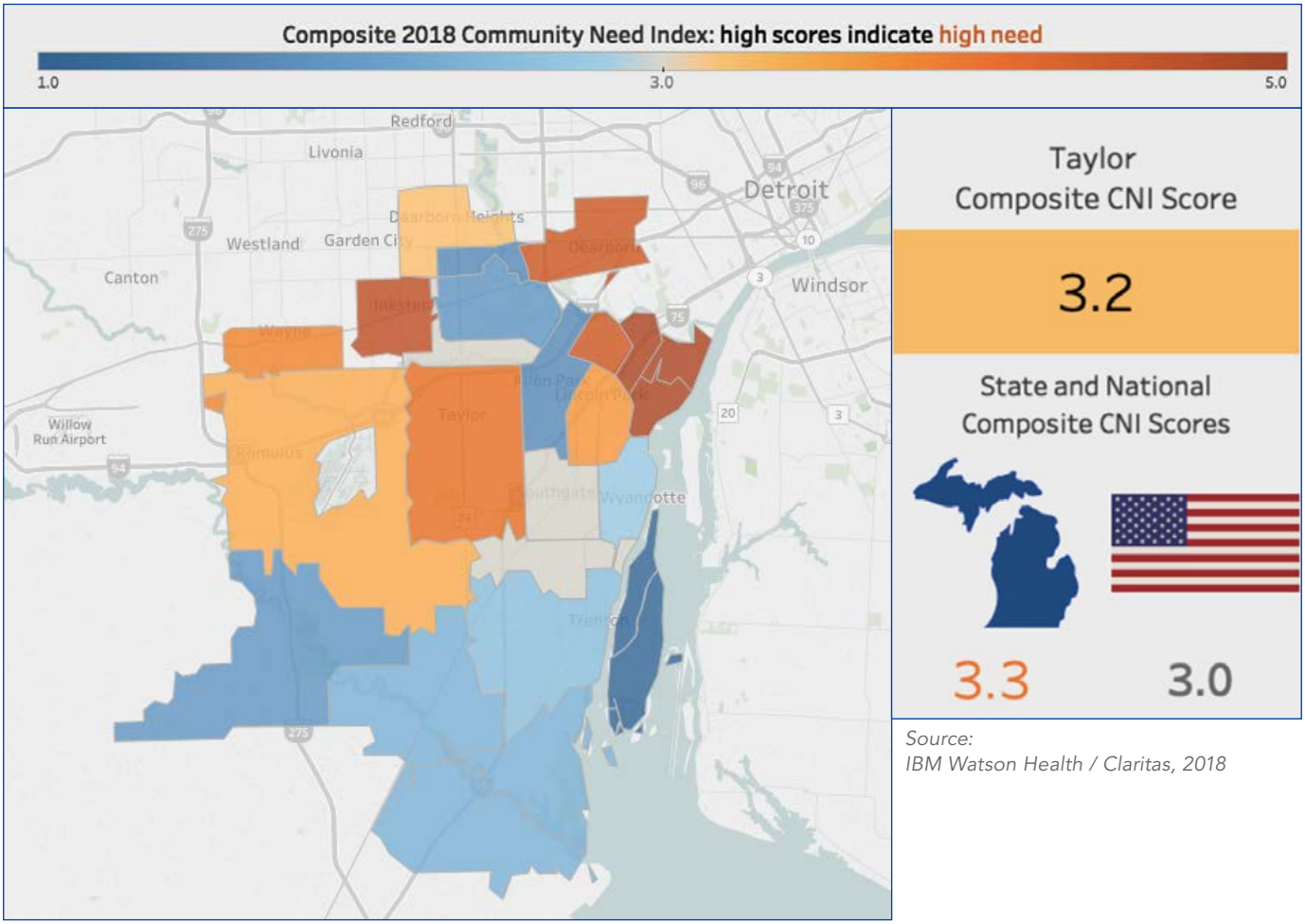
Beaumont, Taylor

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 3.2, higher than the CNI national average of 3.0 but lower than the state average of 3.3.

In four community ZIP codes (48217 - Detroit, 48229 - Ecorse, 48141 - Inkster and 48218 - River Rouge), the CNI score is greater than 4.5, pointing to potentially more significant health needs among those populations. These ZIP codes received scores of 5.0 in three of the five barriers that comprise the composite CNI score: culture, housing and income. In addition, three of the four ZIP codes have scores of 5.0 in the education barrier.

2018 Community need index by ZIP code



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).

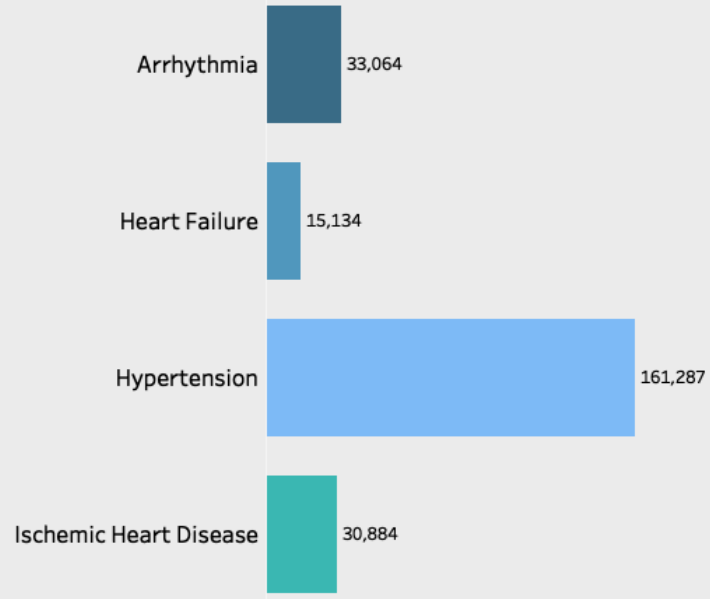
Source:
IBM Watson Health / Claritas, 2018

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 diagnoses; there are over 161,000 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 48138 ZIP code of Grosse Ile has the highest estimated prevalence rates for all heart disease types: arrhythmia (85 cases per 10,000 population), heart failure (40 cases per 10,000 population), hypertension (379 cases per 10,000 population) and ischemic heart disease (86 cases per 10,000 population).

2018 Estimated heart disease cases



2018 Cases

Bar chart shows total number and prevalence rate of 2018 estimated heart disease cases for each of four types: arrhythmia, heart failure, hypertension and ischemic heart disease

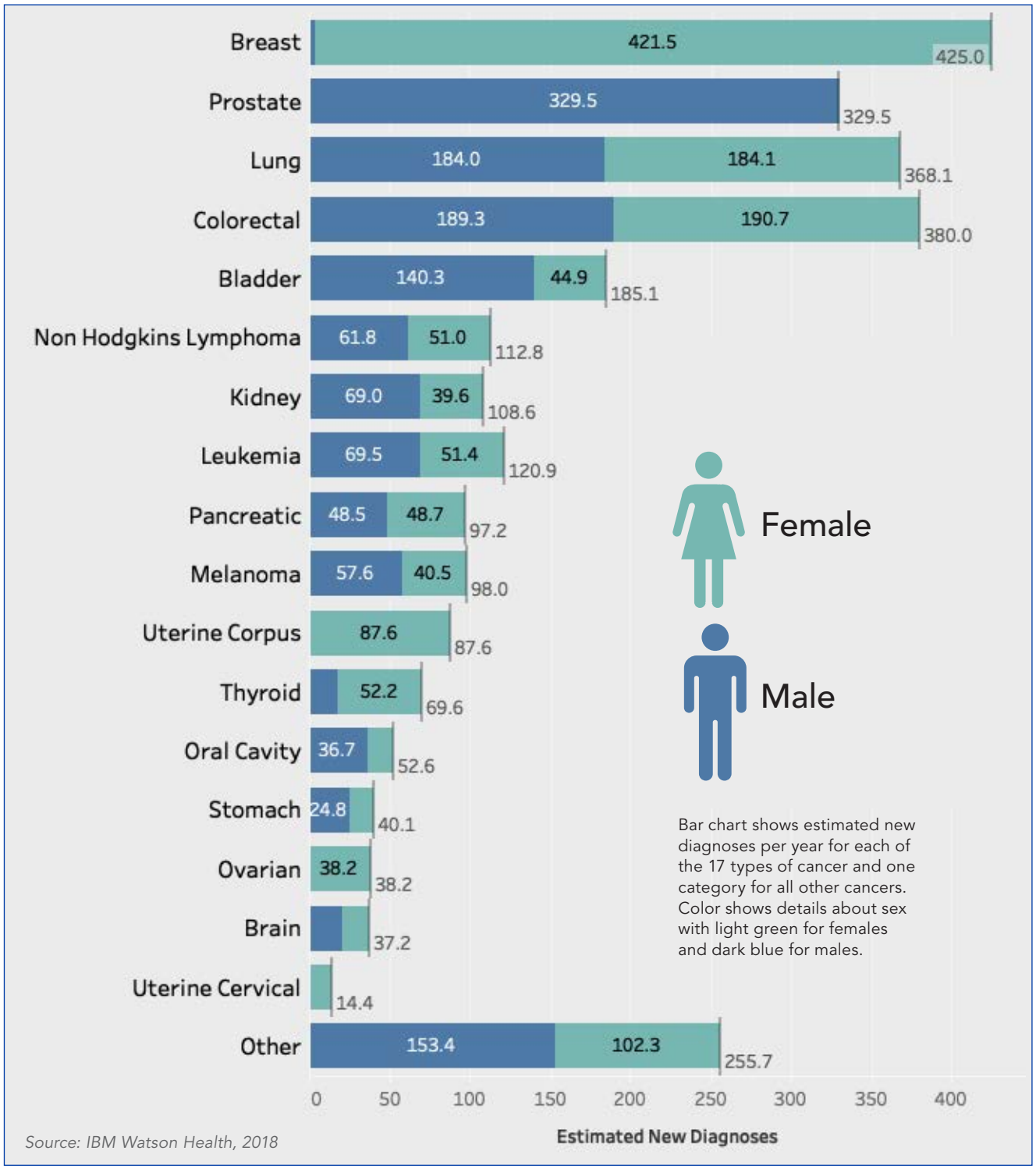
Note: An individual patient may have more than one type of heart disease. Therefore, the sum of all four heart disease types is not a unique count of individuals.

Source: IBM Watson Health, 2018

Beaumont, Taylor

For this community, IBM Watson Health's 2018 cancer estimates revealed 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, bladder and pancreatic, 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	185	202	9.1%
Brain	37	38	2.4%
Breast	425	437	2.8%
Colorectal	380	344	-9.6%
Kidney	109	115	5.8%
Leukemia	121	129	6.3%
Lung	368	382	3.7%
Melanoma	98	107	9.4%
Non-Hodgkin's lymphoma	113	119	5.9%
Oral cavity	53	56	5.7%
Ovarian	38	39	1.8%
Pancreatic	97	106	8.6%
Prostate	329	321	-2.7%
Stomach	40	41	1.7%
Thyroid	70	75	8.0%
Uterine - cervical	14	14	-4.4%
Uterine - corpus	88	92	4.7%
Other	256	271	5.9%
Grand total	**2,821**	**2,885**	**2.3%**

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

Beaumont, Taylor

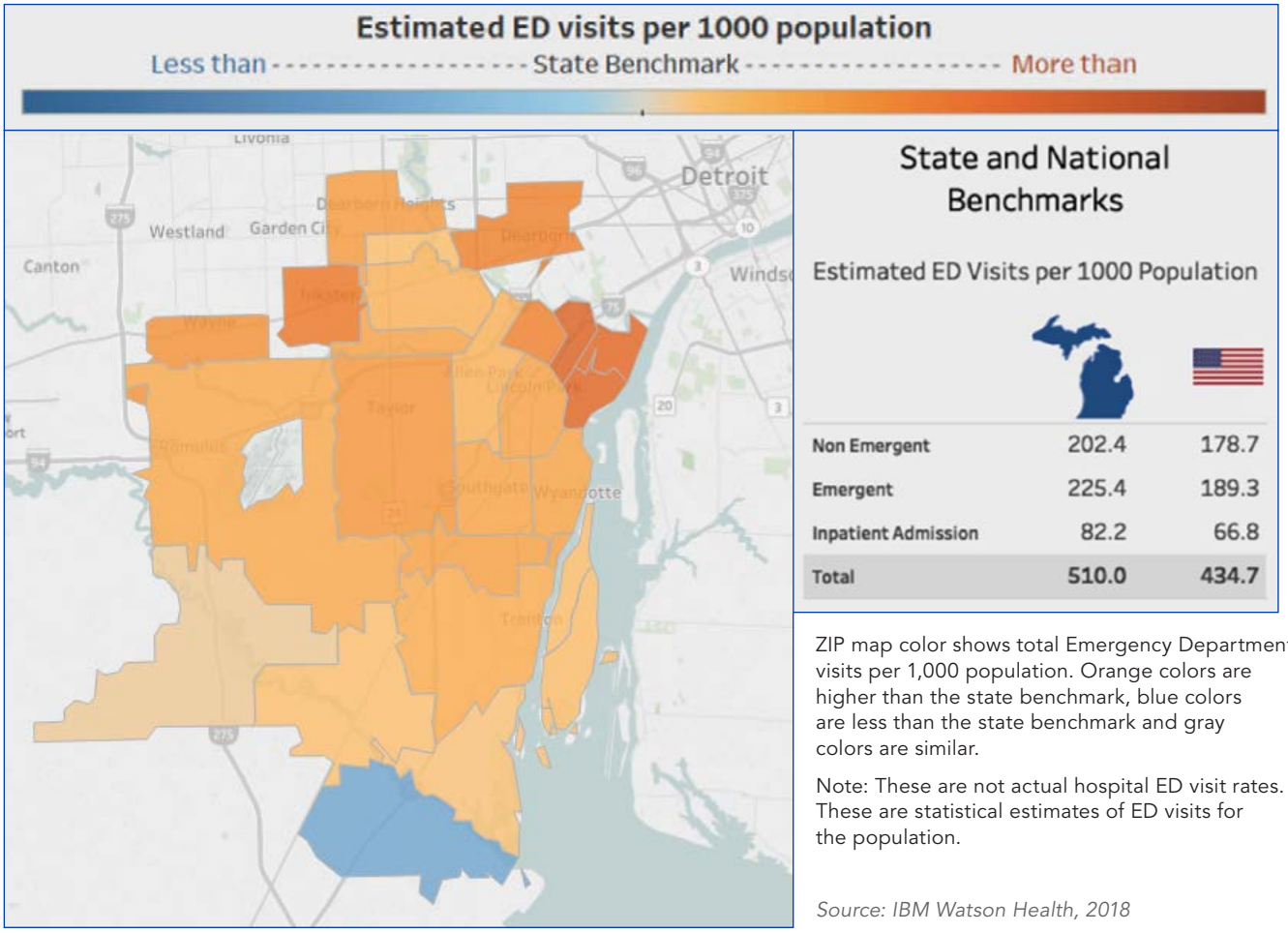
Based on population characteristics and regional utilization rates, IBM Watson Health projects all Emergency Department visits in this community to decrease by 0.7% over the next five years.

Although the number of ED visits are projected to decrease slightly, estimated ED use rates in 23 of 24 community 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 ZIP codes, 48217 - Detroit and 48229 - Ecorse (807.5 and 790.1 ED visits per 1,000 residents respectively). The ED use rate in these ZIP codes is more than 80% higher than the U.S. benchmark of 435 visits per 1,000 population 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 were 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 outpatient 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 estimated non-emergent ED visits to decrease by an average of 3.7% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate

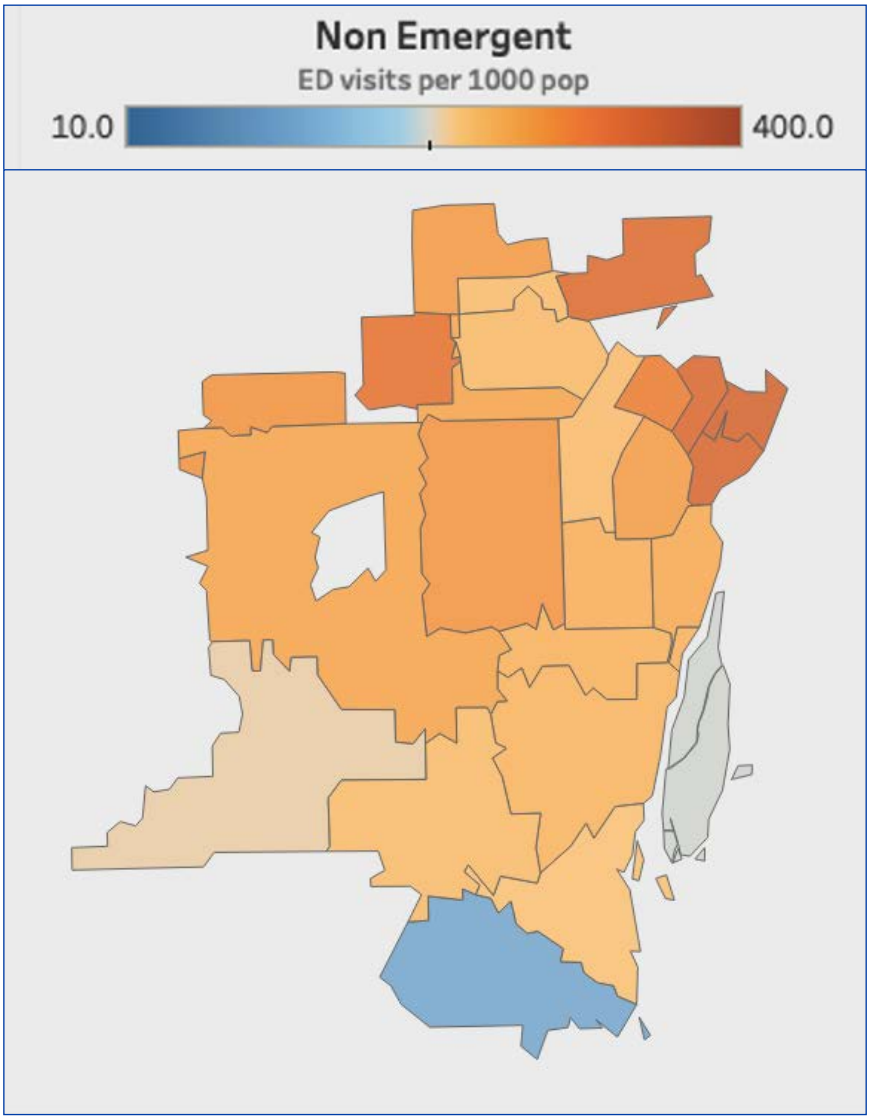


ZIP map color shows total Emergency Department visits per 1,000 population. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark and gray colors are similar.

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 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.

Beaumont, Taylor • 2019 CHNA implementation strategy

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 Taylor community 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. • Provide education on chronic disease prevention and management through the Living Well education series, community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Taylor will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • Healthy Taylor coalition • City of Taylor • Taylor Farmer's Market, Inc. • Taylor School District
EVALUATION	• Pre/post participant surveys • Partnership agreements • Participation surveys
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase percent of physically active adults. • Increase education and opportunities for physical education.
STRATEGIES AND TACTICS	• Implement community wide walking programs such as neighborhood walking groups and community walk events to increase physical activity and social interaction across the community. • Explore development of a Wellness Park, inclusive of environmental improvements and programming, to create an outdoor experience to increase activity options for residents. • Implement the program A Matter of Balance: Managing Concerns About Falls to support physical activity among older adults.
COMMITTED RESOURCES	Beaumont, Taylor will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Healthy Taylor coalition • City of Taylor Parks and Recreation • Downriver Family YMCA • City of Taylor
EVALUATION	• Participant surveys • Participation rates • Walking log metrics • Up and Go Test • Park usage

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. • Increase knowledge and awareness of self-monitoring practices. • Decrease in cardiovascular disease risk factors.
STRATEGIES AND TACTICS	• Implement Blood Pressure Self-Monitoring Program in churches and community organizations. • Provide support programs including education on cardiovascular disease and stroke prevention. • Mentor and assist schools in attaining the state Heart Safe School designation and provide AED equipment as needed.
COMMITTED RESOURCES	Beaumont, Taylor 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 deaths from sudden cardiac arrest. • Decrease in cardiovascular disease risk factors.
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, Taylor 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 new incidences of diabetes.
STRATEGIES AND TACTICS	• Provide the Diabetes PATH chronic disease self-management program. Explore implementation of online version. • Provide support groups for those with diabetes and their caregivers. • Implement the National Diabetes Prevention Program for adults with pre-diabetes or at high risk for diabetes.
COMMITTED RESOURCES	Beaumont, Taylor 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 • Local churches • Libraries • Senior centers • Community organizations
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. • Improve access and coordination of services for opioid use disorder through creation of multidisciplinary care team. • Pilot telehealth psychiatric assessment and care model via telecommunications technology in Emergency Department and primary care settings. • Pilot telehealth counseling assessment and care model via telecommunications technology with teens in school linked to Child and Adolescent Health Center.
COMMITTED RESOURCES	Beaumont, Taylor will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• CARE of Southeast Michigan • Community mental health agencies • Universal Health Services
EVALUATION	• Patients connected to community resources • Number of assessments and visits • Partnership agreements • Medical charting quality goals
Objective #2: Provide education program and services.	
OUTCOME MEASURES	• Increase knowledge and awareness of mental health.
STRATEGIES AND TACTICS	• Implement depression and anxiety prevention TRAILS program within the Child and Adolescent Health Center. • Provide education on mental health through community events and Beaumont Speakers Bureau. • Support awareness, resources and anti-drug knowledge and attitudes through the Child and Adolescent Health Center prevention peer education groups, substance abuse task force coalitions and Healthy Taylor coalition. • Explore opportunities to expand education on mental health prevention within local middle schools.
COMMITTED RESOURCES	Beaumont, Taylor will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community and Youth Advisory Councils • Detroit Wayne Mental Health Authority • Cities of Taylor, Lincoln Park and Ecorse • Taylor School District
EVALUATION	• Participation rates • Pre/post participant surveys

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Beaumont, Trenton

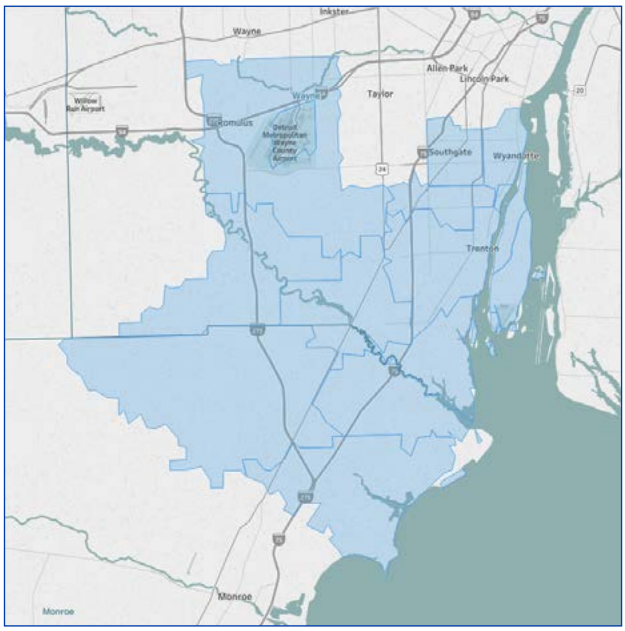
Beaumont, Trenton

Beaumont, Trenton is a community hospital that opened its doors to residents of Trenton and surrounding communities in 1961. Beaumont, Trenton provides comprehensive medical care for its patients. A recipient of the Governor's Award of Excellence for Improving Care in Hospital Surgical and Emergency Department Settings, Beaumont, Trenton offers the latest in health services and has the only Level II designated trauma center serving the downriver community. This important distinction means that advanced life-saving procedures are readily available 24/7 for patients with traumatic injuries.

Community served

The Beaumont, Trenton community 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. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Trenton: Map of community served



Source: Beaumont Health, 2019

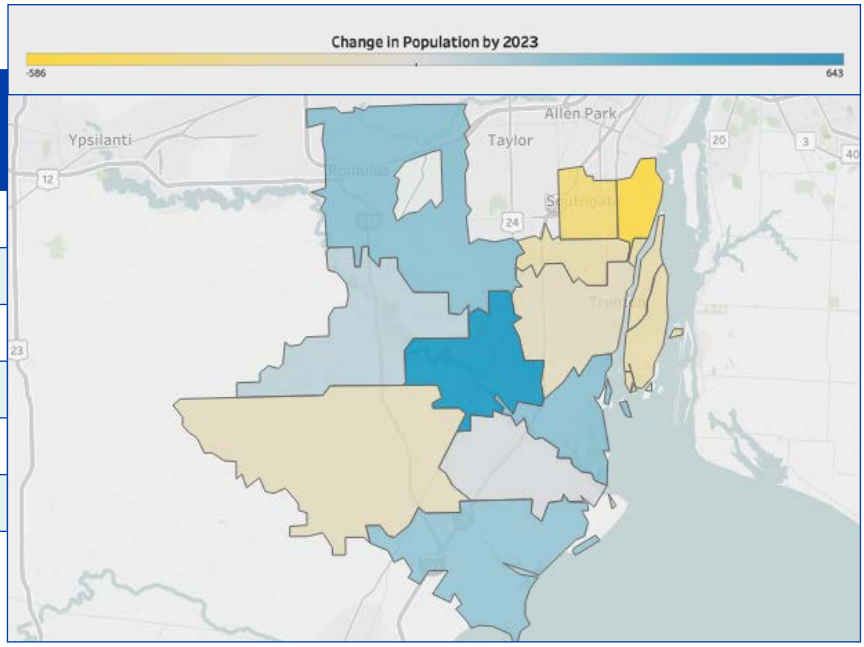
Demographic and socioeconomic summary

The population of the community served is expected to decrease 0.1% by 2023, a drop of 186 people. The community's population decline contrasts with Michigan's slow projected growth rate (0.6%) and higher national projected growth rate (3.5%). Six (6) of the 12 ZIP codes in the community are expected to grow in the next five years:

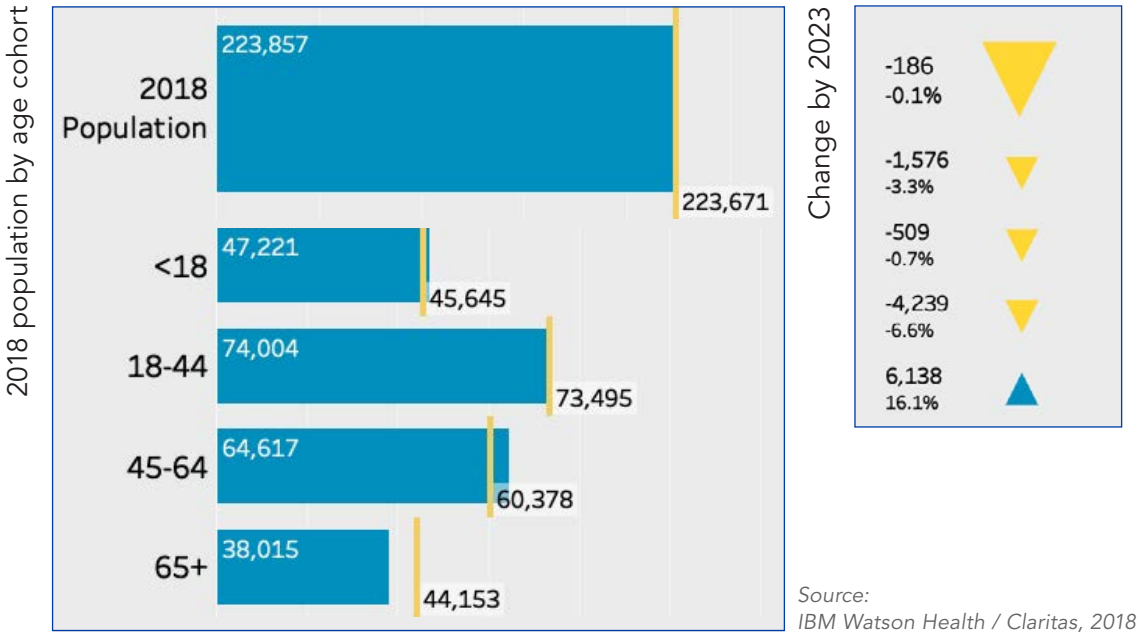
Zip Codes	Growth in five years (# of people)
48134 Flat Rock	**643**
48174 Romulus	**249**
48173 Rockwood	**245**
48166 Newport	**214**
48164 New Boston	**97**
48179 South Rockwood	**18**

Source: IBM Watson Health / Claritas, 2018

2018 - 2023 Total population projected change by ZIP code



The community's population skews slightly younger with 33.1% of the population ages 18-44 and 21.1% under age 18. The largest cohort (18-44) is expected to decrease by 509 people by 2023. The age 65-plus cohort, the smallest at 17.0% of the population, is the only age group expected to grow (16.1% increase) over the next five years, adding 6,138 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

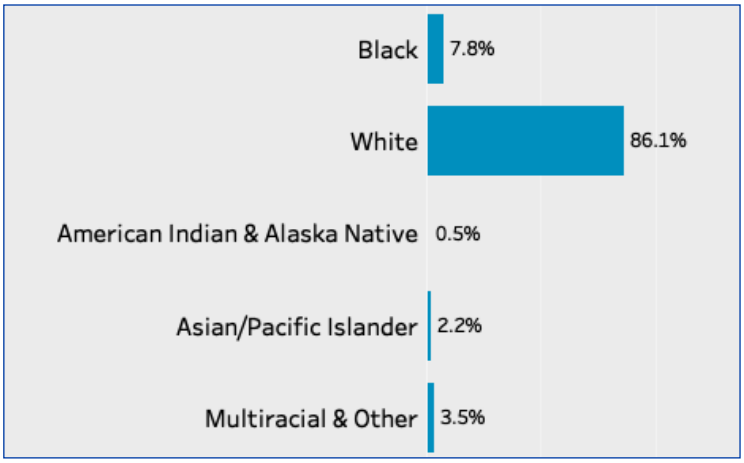


Population distribution by age

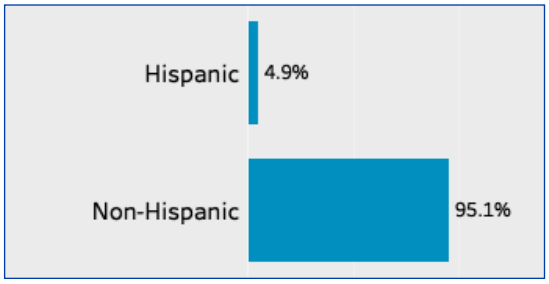
Source:
IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The largest racial group in the community is white (86.1%), followed by black (7.8%). The Asian/Pacific Islander population is projected to experience the greatest growth (14.8% increase), adding 713 people to the community. The Hispanic population (all races) is expected to grow by 7.1% or 779 people by 2023, while the non-Hispanic population (all races) is expected to decline by over 900 people (-0.5%) by 2023..

2018 Population by race

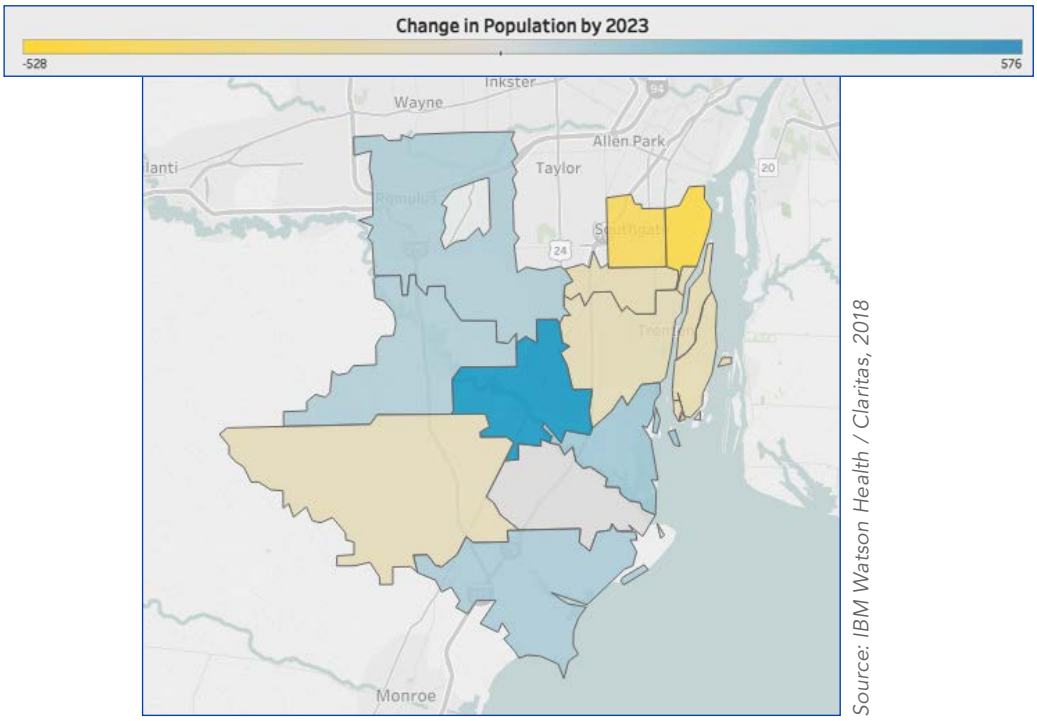


2018 Population by ethnicity



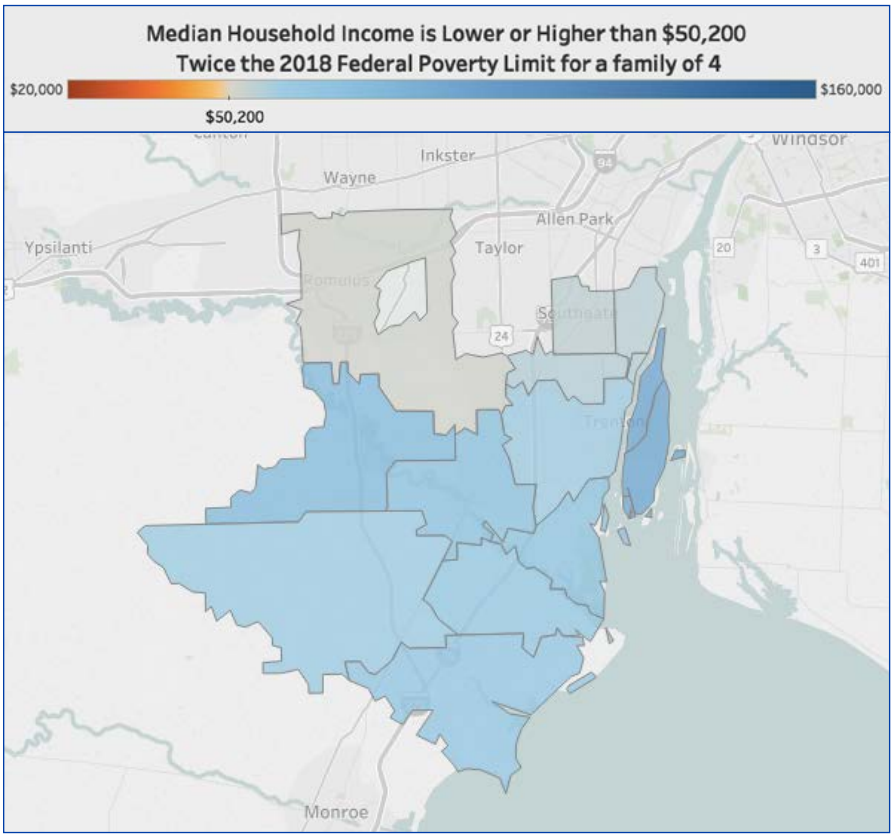
Source: IBM Watson Health / Claritas, 2018

2018 - 2023 White race population projected change by ZIP code



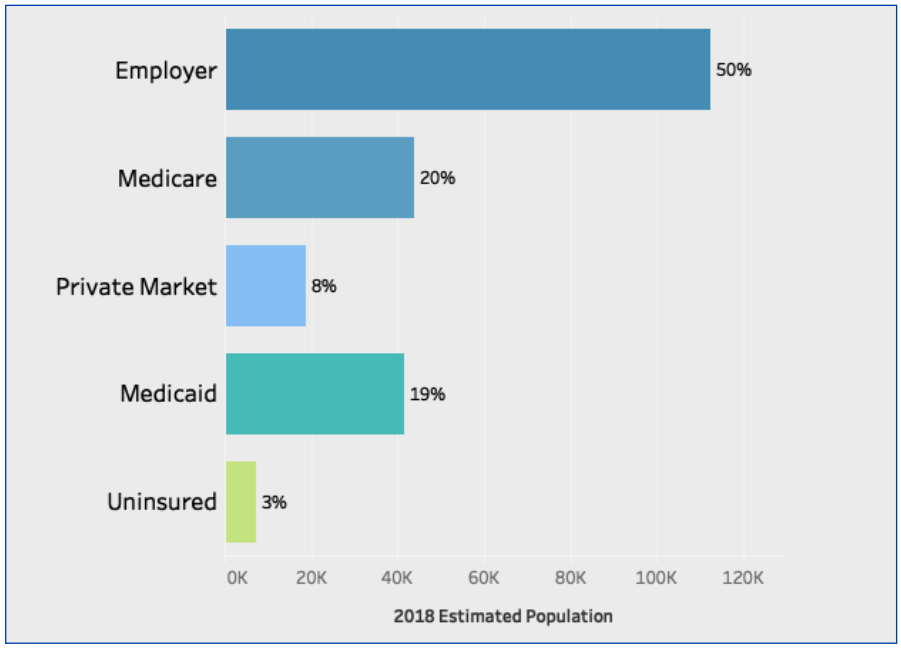
Source: IBM Watson Health / Claritas, 2018

2018 Median household income by ZIP code



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 range from $52,240 for ZIP code 48174 - Romulus to $104,367 for ZIP code 48138 - Grosse Ile. None of the ZIP Codes have a median household income less than $50,200 (twice the 2018 Federal Poverty Limit) for a family of four.

2018 Estimated distribution of covered lives by insurance category



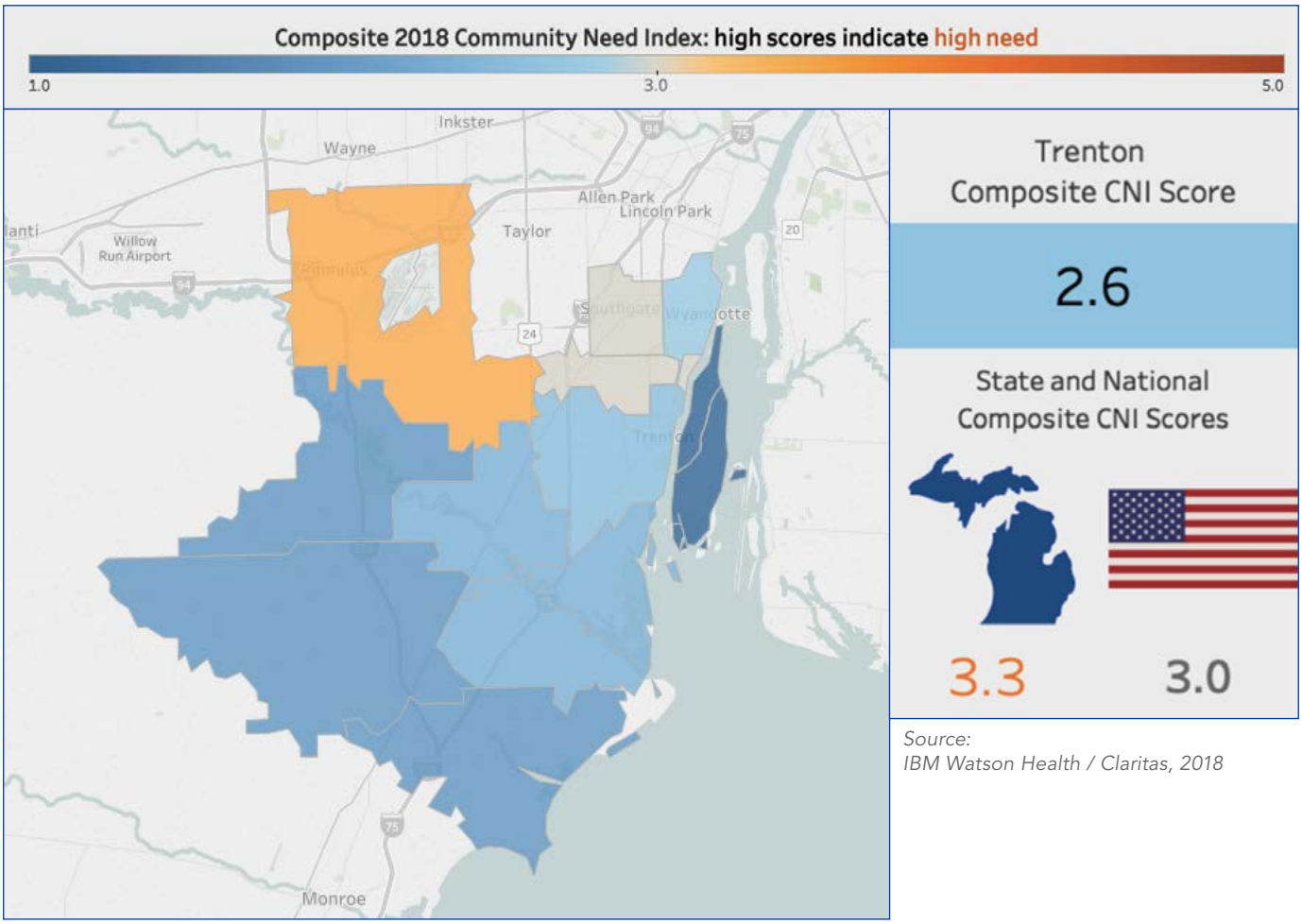
Source: IBM Watson Health / Claritas, 2018

Half of the population (50%) are insured through employer sponsored health coverage, followed by those with Medicare (20%) and Medicaid (19%). The remainder of the population are divided between 3% uninsured and 8% private market (the purchasers of coverage directly or through the health insurance marketplace).

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 composite CNI score for the community served is 2.6, lower than the CNI national average of 3.0 and state average of 3.3. In only one ZIP code, 48174 - Romulus, is the CNI score (3.4) higher than the state average.

2018 Community need index by ZIP code



Source:
IBM Watson Health / Claritas, 2018

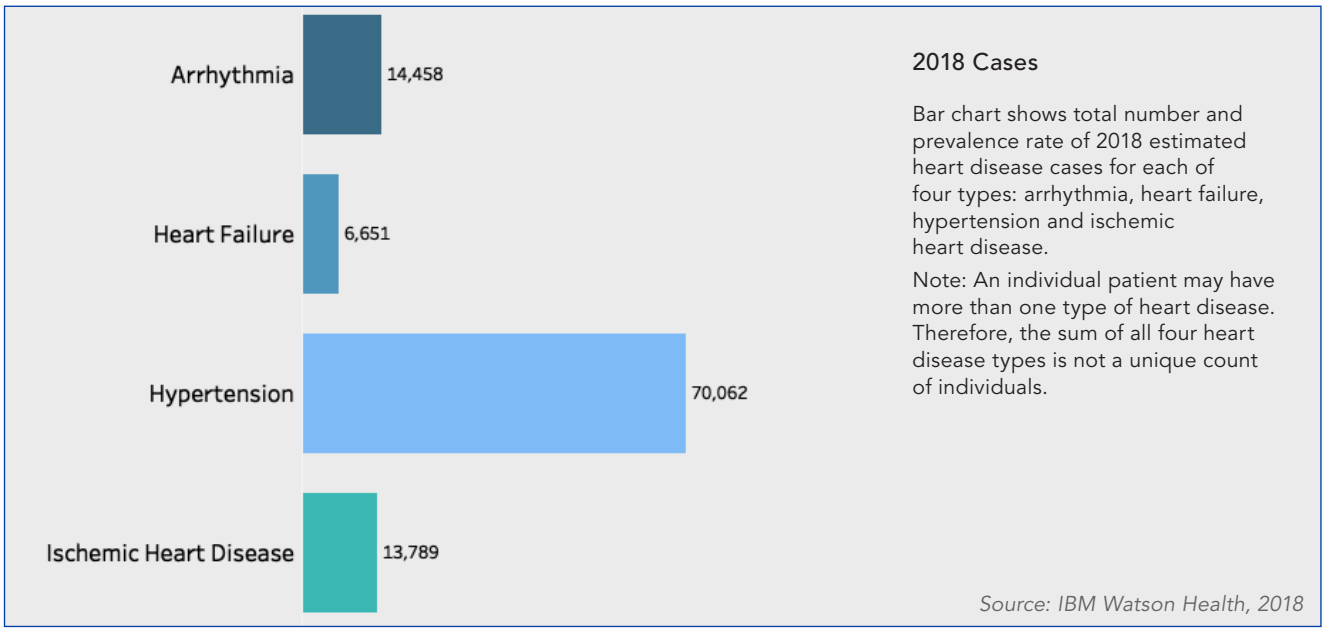
ZIP Map where color shows the Community Need Index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

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 more than 70,000 estimated cases in the community overall. The 48183 ZIP code of Trenton has the most estimated cases of each heart disease type. The 48138 ZIP code of Grosse Ile has the highest estimated prevalence rates for arrhythmia (85 cases per 1,000 population), heart failure (40 cases per 1,000 population), hypertension (379 cases per 1,000 population) and ischemic heart disease (86 cases per 1,000 population).

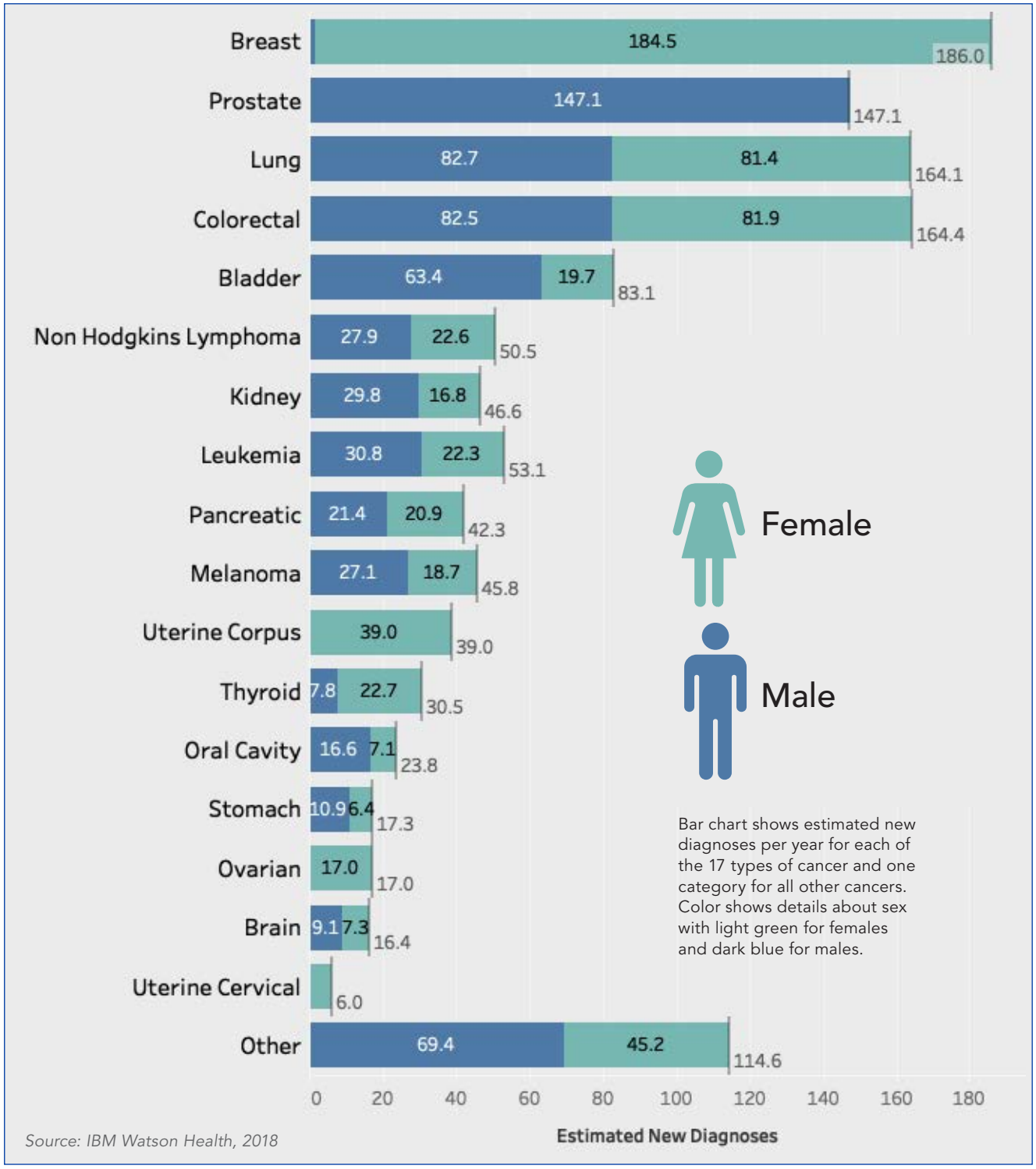
2018 Estimated heart disease cases



Source: IBM Watson Health, 2018

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

2018 Estimated new cancer cases



Source: IBM Watson Health, 2018

Estimated cancer cases and projected five-year change by type

Cancer type	2018 Estimated new cases	2023 Estimated new cases	5-year growth (%)
Bladder	83	92	11.2%
Brain	16	17	4.0%
Breast	186	195	4.7%
Colorectal	164	151	-8.4%
Kidney	47	50	7.7%
Leukemia	53	58	8.5%
Lung	164	174	6.1%
Melanoma	46	51	11.1%
Non-Hodgkin's lymphoma	51	55	8.1%
Oral cavity	24	26	7.5%
Ovarian	17	18	3.7%
Pancreatic	42	47	11.2%
Prostate	147	146	-0.8%
Stomach	17	18	3.8%
Thyroid	30	33	9.4%
Uterine - cervical	6	6	-2.5%
Uterine - corpus	39	41	6.4%
Other	115	124	8.2%
Grand total	**1,248**	**1,301**	**4.3%**

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

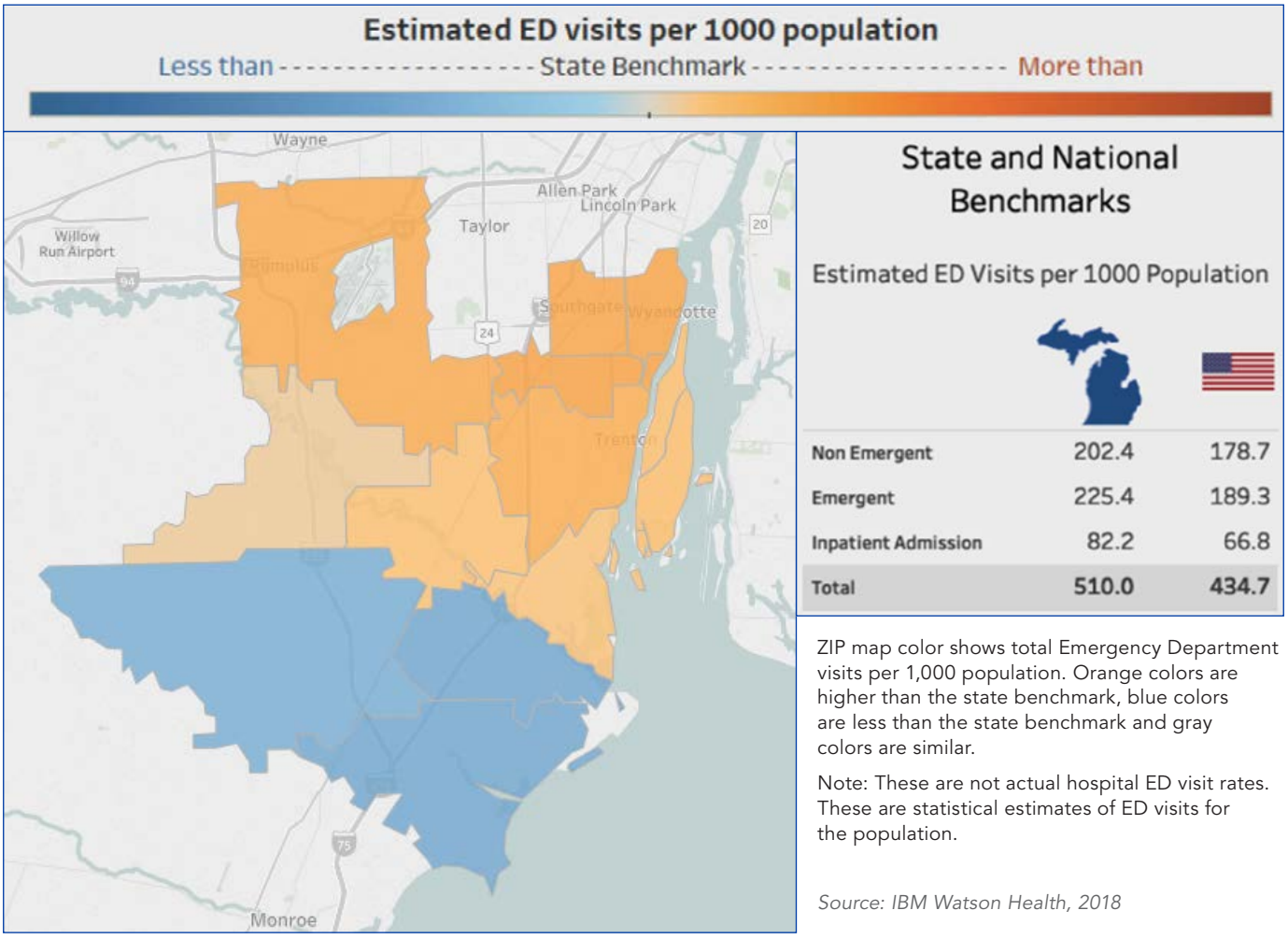
Beaumont, Trenton

Based on population characteristics and regional utilization rates, IBM Watson Health projected all Emergency Department visits in this community will increase by 1% over the next five years. The highest estimated ED use rate is in the 48193 ZIP code of Riverview; 637.3 ED visits per 1,000 residents compared to the Michigan state benchmark of 510 visits and the U.S. benchmark of 435 visits per 1,000.

These ED visits consist of three main types: those resulting in an inpatient admission, emergent ED visits treated and released and non-emergent ED visits that were low 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 can 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 estimated non-emergent ED visits will decrease by an average of 2.6% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate



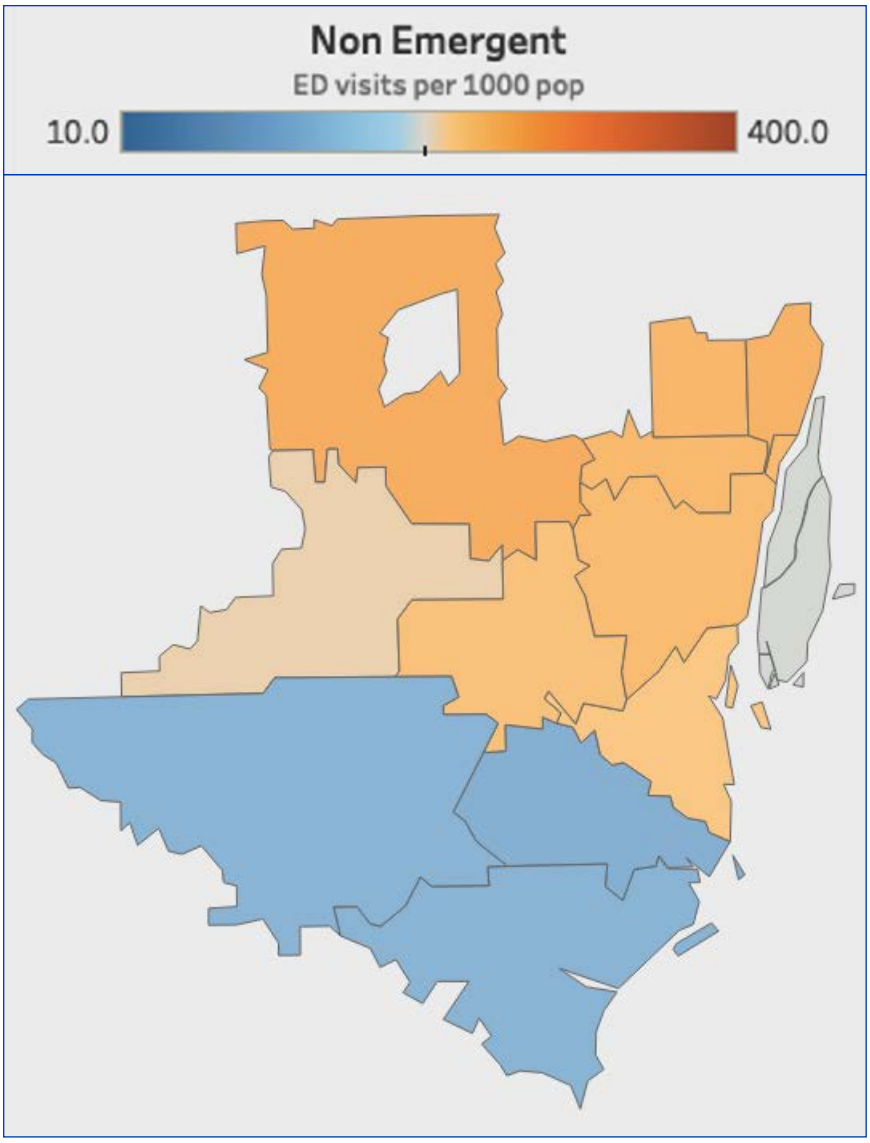
Non Emergent	202.4	178.7
Emergent	225.4	189.3
Inpatient Admission	82.2	66.8
Total	510.0	434.7

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 Trenton Community 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. • Provide education on chronic disease prevention and management through community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Trenton will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • Healthy Trenton coalition • City of Trenton • Trenton Public Schools • Michigan State University Extension • American Heart Association • Community Grown Gardens • The Guidance Center
EVALUATION	• Convenience store assessments completed • Pre/post participant surveys • Partnership agreements • Participation surveys
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase percent of physically active adults. • Increase education and opportunities for physical education.
STRATEGIES AND TACTICS	• Implement community-wide walking and biking programs to increase physical activity and decrease social interaction across the community. • Improve the build environment for fitness activities by supporting the implementation of Trenton's Trail Town Master Plan.
COMMITTED RESOURCES	Beaumont, Trenton will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Healthy Trenton coalition • City of Trenton Parks and Recreation • Wayne County Parks • Destination Downriver coalition
EVALUATION	• Participant surveys • Master Plan activities • 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. • Increase knowledge and awareness of self-monitoring practices. • Decrease in cardiovascular disease risk factors.
STRATEGIES AND TACTICS	• Implement Blood Pressure Self-Monitoring Program in churches and community organizations. • Provide support programs including education on stroke prevention and emergency response plans. • Mentor and assist schools in attaining the state Heart Safe School designation and provide AED equipment as needed.
COMMITTED RESOURCES	Beaumont, Trenton will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Local churches • Community agencies • Schools • Long-term care facilities
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 deaths from sudden cardiac arrest. • Decrease in cardiovascular disease risk factors.
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, Trenton 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. • Provide support groups for those with diabetes and their caregivers. • Implement the National Diabetes Prevention Program for adults with pre-diabetes or at high risk for diabetes.
COMMITTED RESOURCES	Beaumont, Trenton 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 • Local churches • Libraries • Senior centers • Community organizations
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.
COMMITTED RESOURCES	Beaumont, Trenton will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies • Universal Health Services
EVALUATION	• Partnership agreements • Patients connected to community resources
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, Trenton will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies
EVALUATION	• Participation rates • Pre/post participant surveys

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Beaumont, Troy

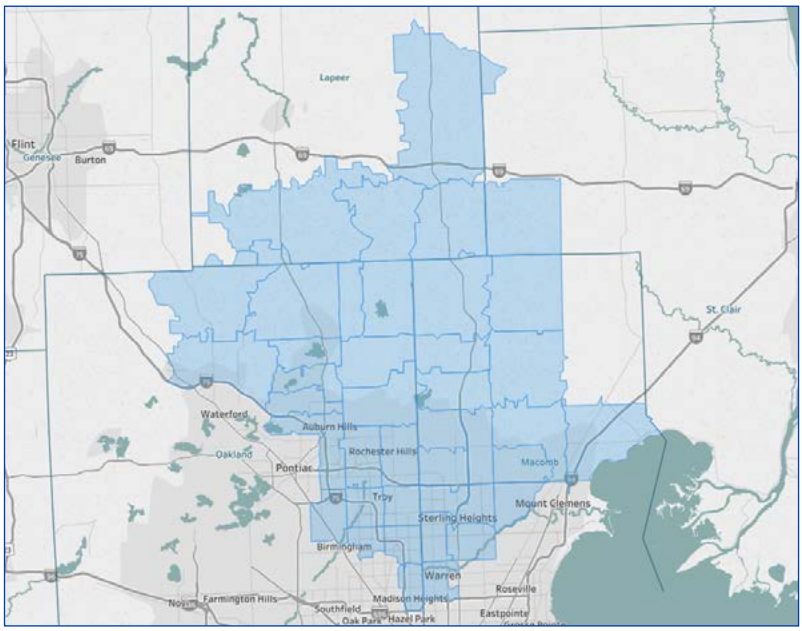
Beaumont, Troy

Beaumont, Troy offers a comprehensive array of health care services that continue to develop to meet the needs of the growing communities it serves.

Community served

The Beaumont, Troy community 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. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Troy: Map of community served



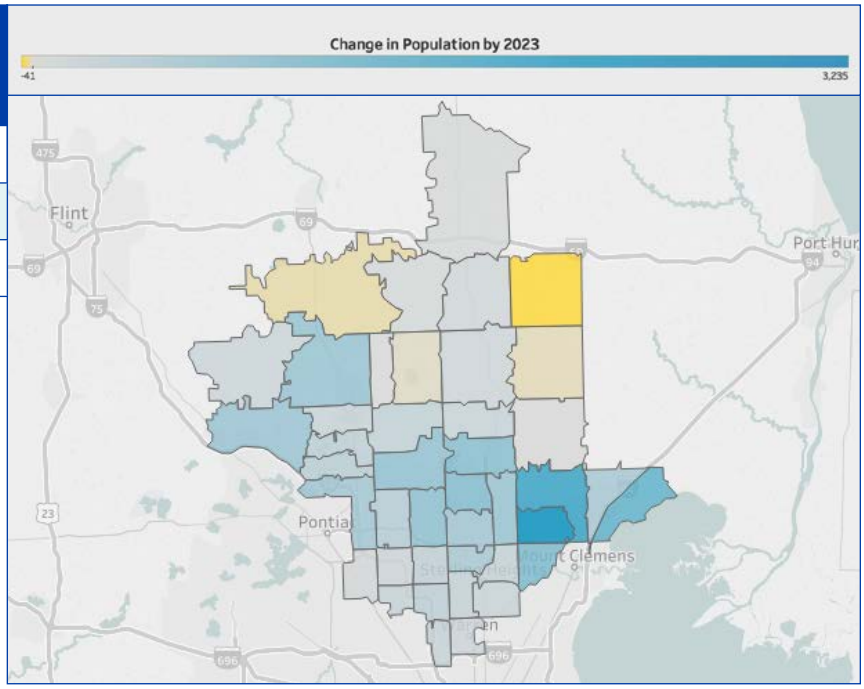
Source: Beaumont Health, 2019

Demographic and socioeconomic summary

The population of the community served is expected to increase 2.8% by 2023, adding more than 24,000 people. The community's growth in population surpasses Michigan's slow projected growth rate (0.6%) and is less than the national projected growth rate (3.5%). The three (3) ZIP codes expected to experience the highest growth in the next five years are:

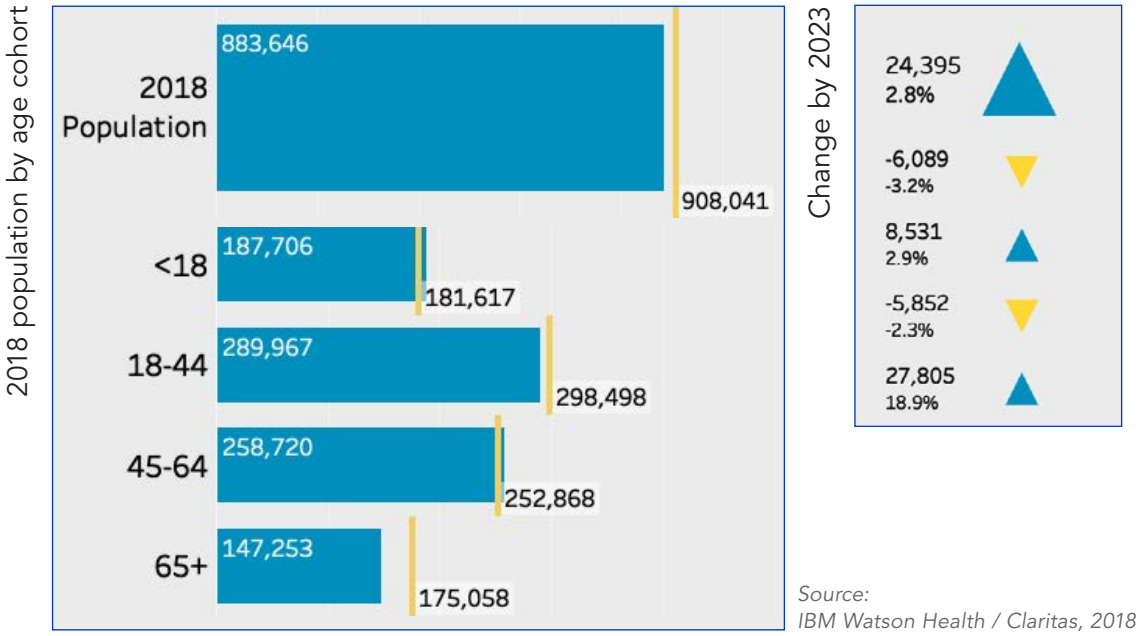
2018 - 2023 Total population projected change by ZIP code

Zip Codes	Growth in five years (# of people)
48044 Macomb	**3,235**
48042 Macomb	**2,419**
48047 New Baltimore	**1,777**



Source: IBM Watson Health / Claritas, 2018

The community's population skews slightly younger with 32.8% of the population ages 18-44 and 21.2% under age 18. The largest cohort (18-44) is expected to increase by 8,531 people (2.9%) by 2023. The age 65-plus cohort, the smallest cohort at 16.7% of the population, is the only other age group expected to grow (18.9% increase) over the next five years, adding almost 28,000 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

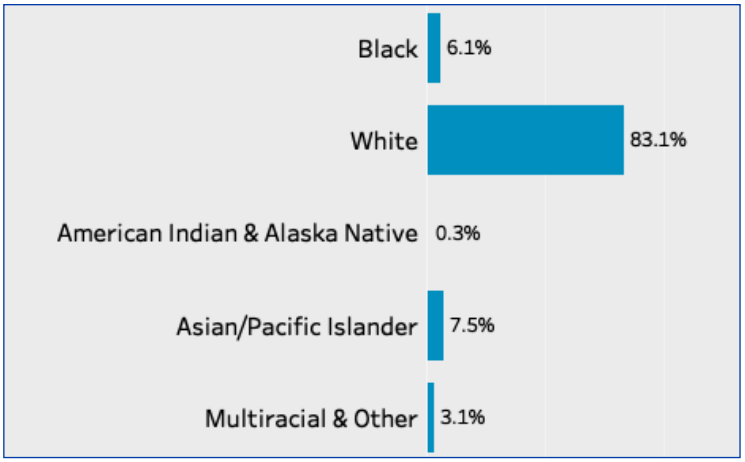


Population distribution by age

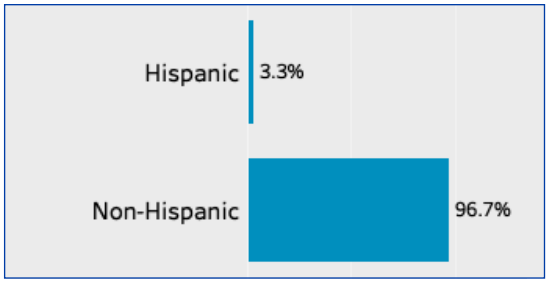
Source:
IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The largest racial groups in the community are white (83.1%), followed by Asian/Pacific Islander (7.5%). The black population (6.1%) is projected to experience the greatest growth (20.5%), adding more than 11,000 people to the community. The Hispanic population (all races) is expected to grow by 13.3% or 4,000 people by 2023, while the non-Hispanic population (all races) is expected to increase by more than 20,000 people (2.4%) by 2023..

2018 Population by race

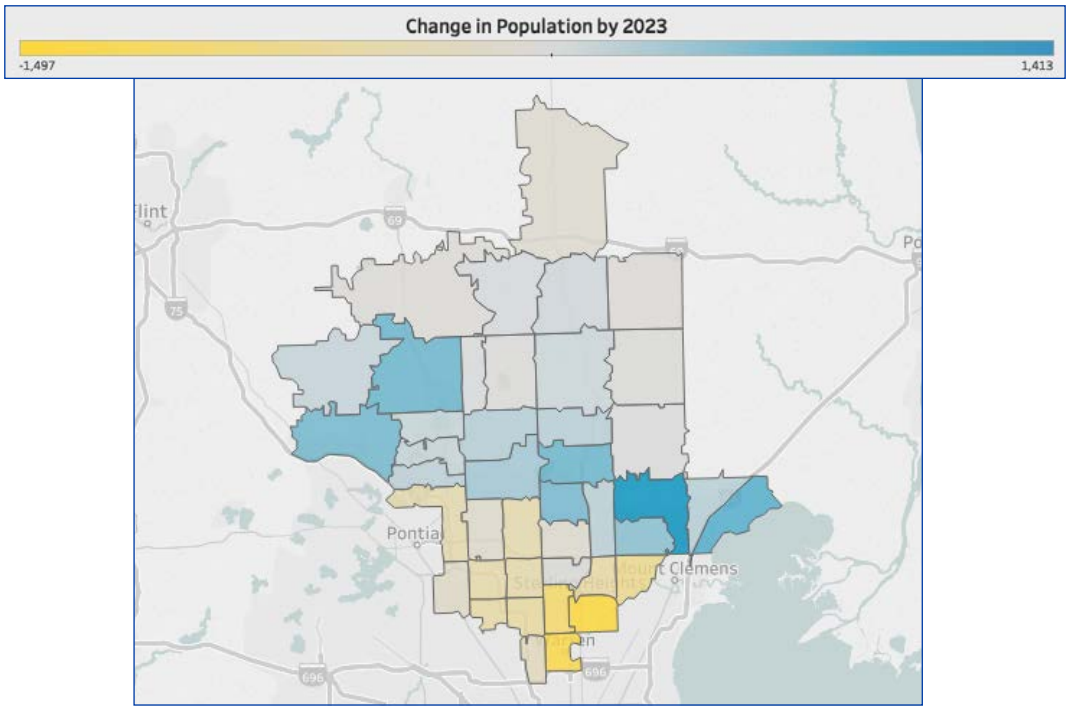


2018 Population by ethnicity



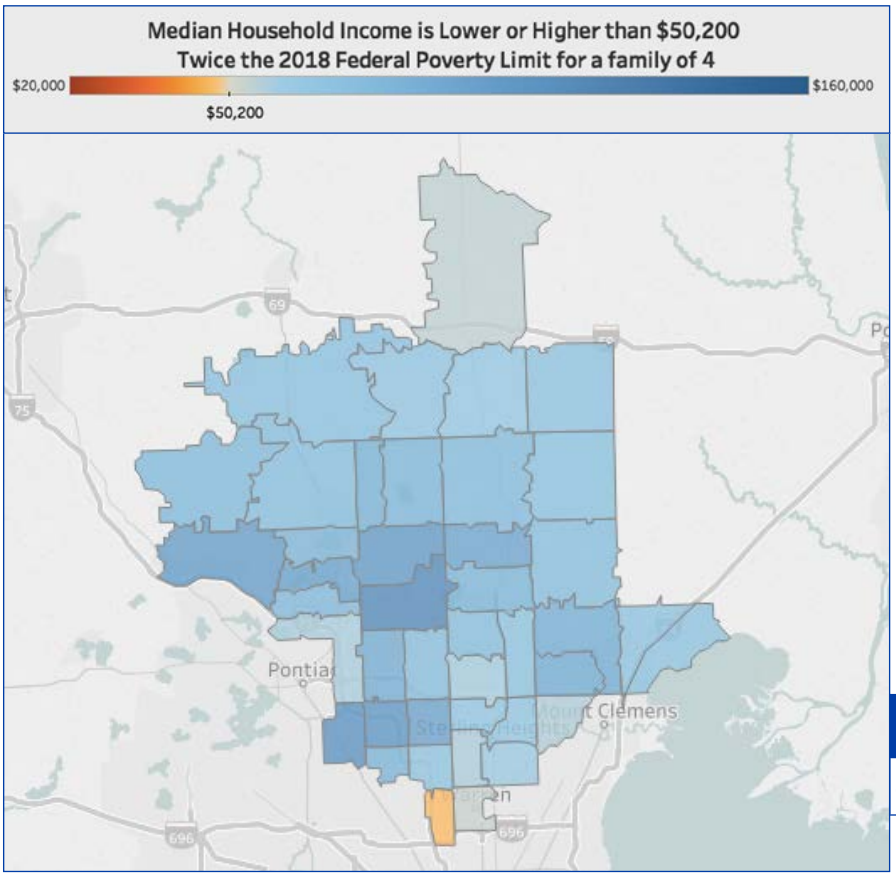
Source: IBM Watson Health / Claritas, 2018

2018 - 2023 White race population projected change by ZIP code



Source: IBM Watson Health / Claritas, 2018

2018 Median household income by ZIP code



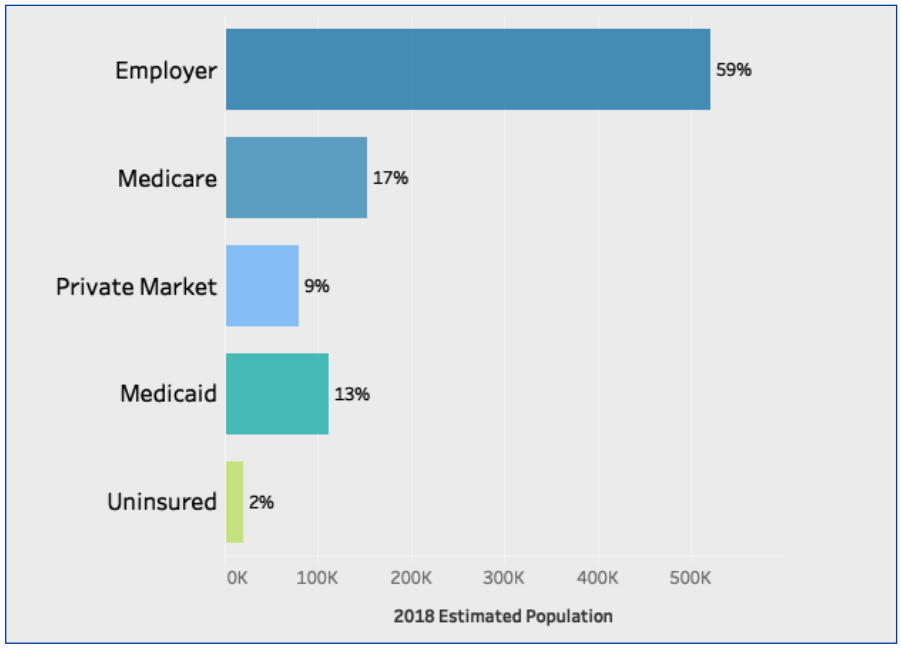
The 2018 median household income for the United States is $62,175 and $55,727 for the state of Michigan. The median household income for the ZIP codes within this community range from $45,854 for ZIP code 48071 - Madison Heightsto $137,733 for ZIP code 48306 - Rochester. There is one ZIP code with a median household income of less than $50,200, twice the 2018 federal poverty limit for a family of four:

Zip Codes	Income
48071 Madison Heights	**$45,854**

Source: IBM Watson Health / Claritas, 2018

A majority of the population (59%) are insured through employer sponsored health coverage, followed by those with Medicare (17%) and Medicaid (13%). The remainder of the population is divided between the 2% uninsured and 9% private market (the purchasers of coverage directly or through the health insurance marketplace).

2018 Estimated distribution of covered lives by insurance category



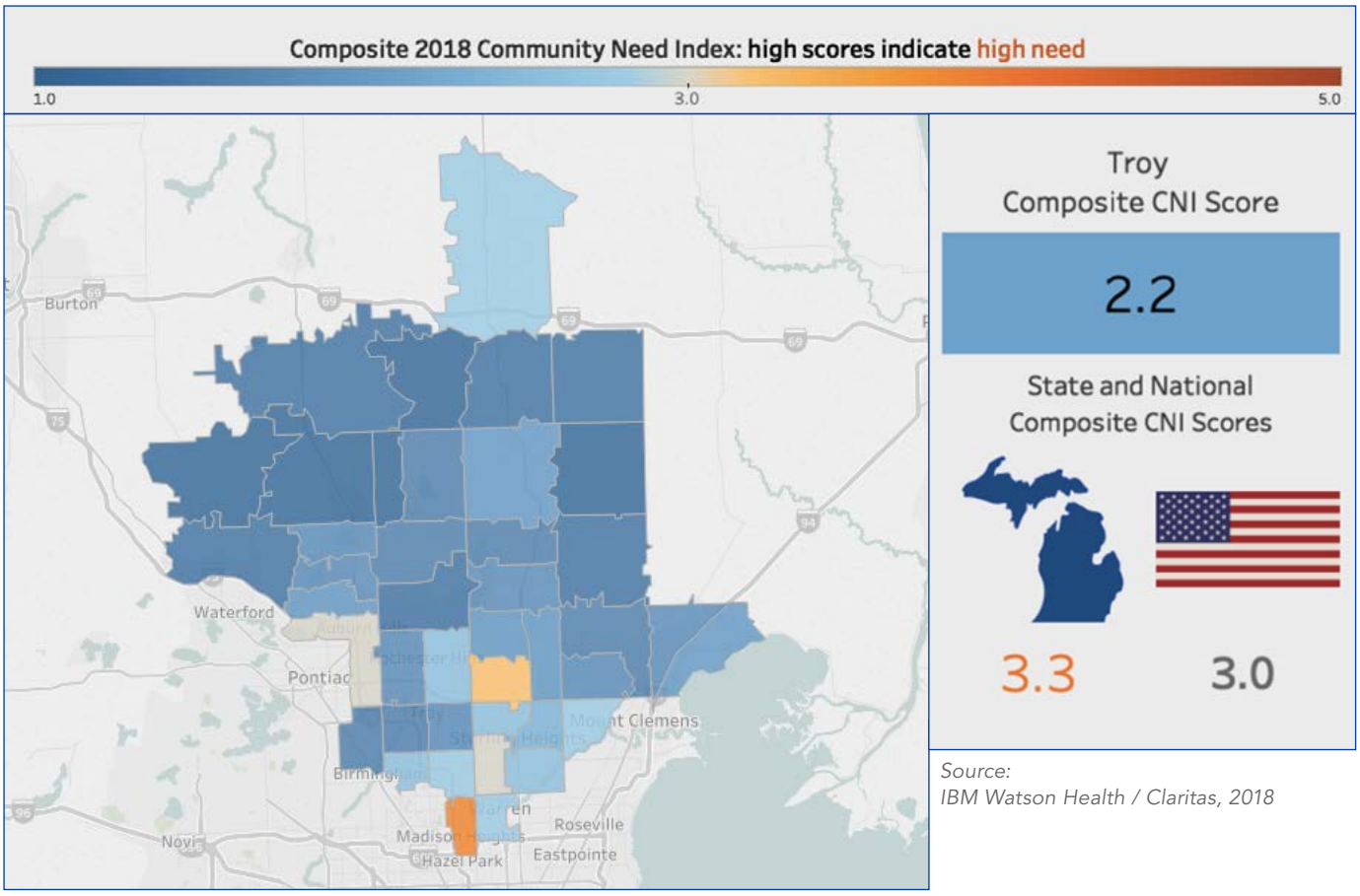
Source: IBM Watson Health / Claritas, 2018

Beaumont, Troy

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 composite CNI score for the community served is 2.2, lower than the CNI national average of 3.0 and state average of 3.3. Thirty-eight of the 42 ZIP codes in this community have a CNI score lower than 3.0, potentially indicating fewer health needs among the population.

2018 Community need index by ZIP code



Source:
IBM Watson Health / Claritas, 2018

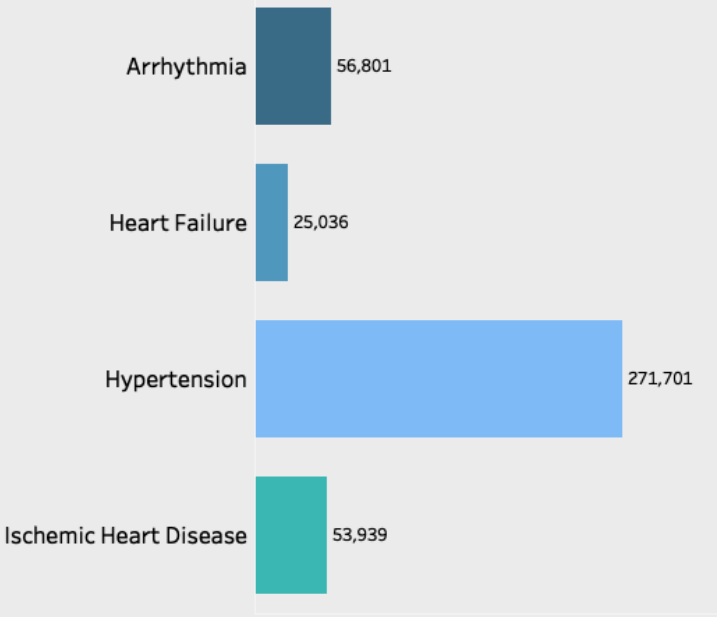
ZIP Map where color shows the community need index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

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 diagnoses; there are more than 271,000 estimated cases in the community overall. The 48038 ZIP code of Clinton Township has the most estimated cases of arrhythmia, heart failure and ischemic heart disease, while the 48044 ZIP code of Macomb has the highest number of cases of hypertension. The 48304 ZIP code of Bloomfield Hills has the highest estimated prevalence rates for arrhythmia (96 cases per 1,000 population), heart failure (40 cases per 1,000 population), hypertension (378 cases per 1,000 population) and ischemic heart disease (97 cases per 1,000 population).

2018 Estimated heart disease cases



2018 Cases

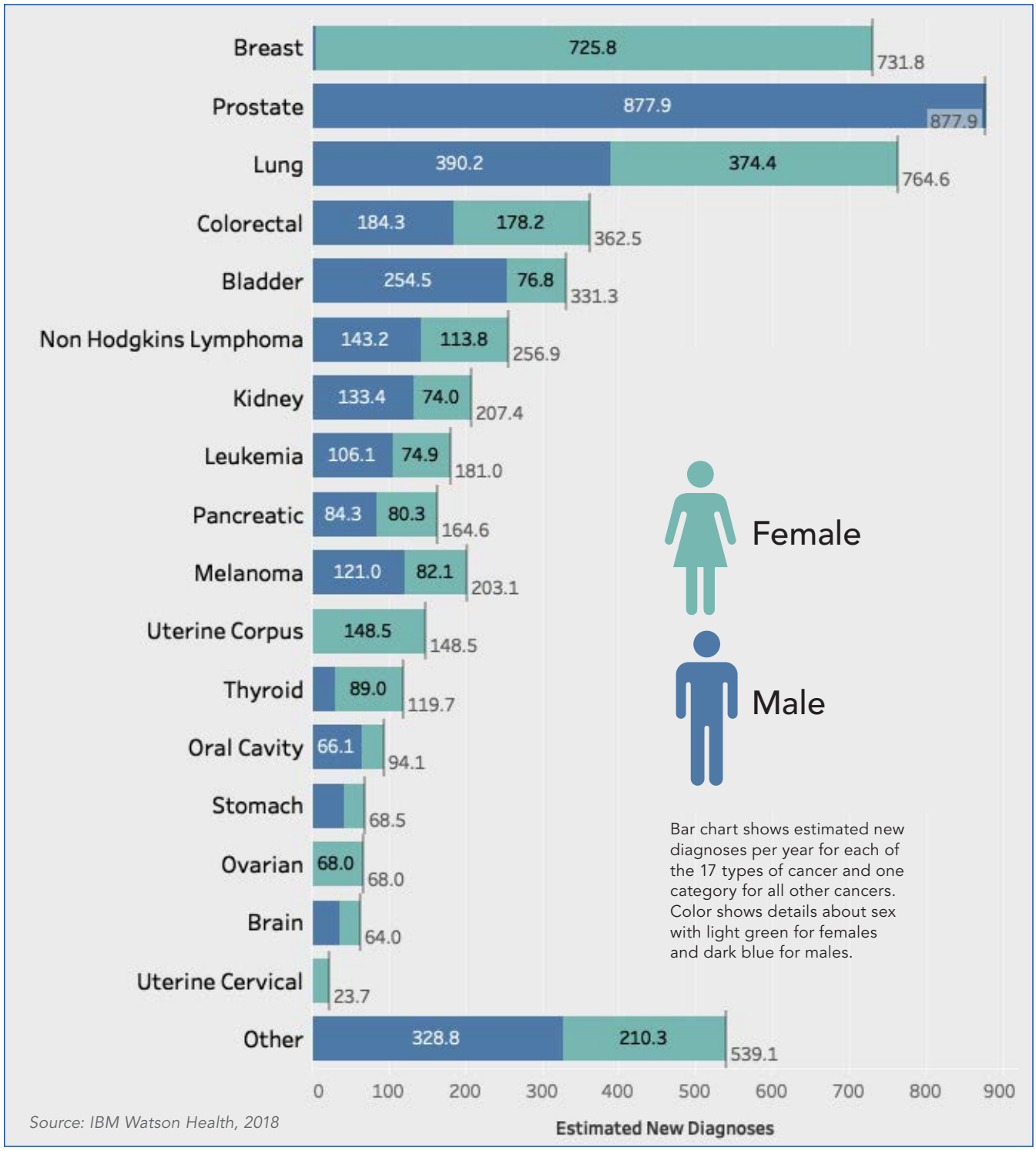
Bar chart shows total number and prevalence rate of 2018 estimated heart disease cases for each of four types: arrhythmia, heart failure, hypertension and ischemic heart disease

Note: An individual patient may have more than one type of heart disease. Therefore, the sum of all four heart disease types is not a unique count of individuals.

Source: IBM Watson Health, 2018

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

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	331	375	13.1%
Brain	64	68	6.0%
Breast	732	791	8.1%
Colorectal	362	344	-5.0%
Kidney	207	230	10.9%
Leukemia	181	200	10.6%
Lung	765	833	9.0%
Melanoma	203	228	12.3%
Non-Hodgkin's lymphoma	257	284	10.6%
Oral cavity	94	104	10.3%
Ovarian	68	72	6.6%
Pancreatic	165	188	14.5%
Prostate	878	900	2.5%
Stomach	68	74	7.8%
Thyroid	120	134	12.2%
Uterine - cervical	24	24	1.4%
Uterine - corpus	149	163	9.6%
Other	539	600	11.3%
Grand total	**5,207**	**5,614**	**7.8%**

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

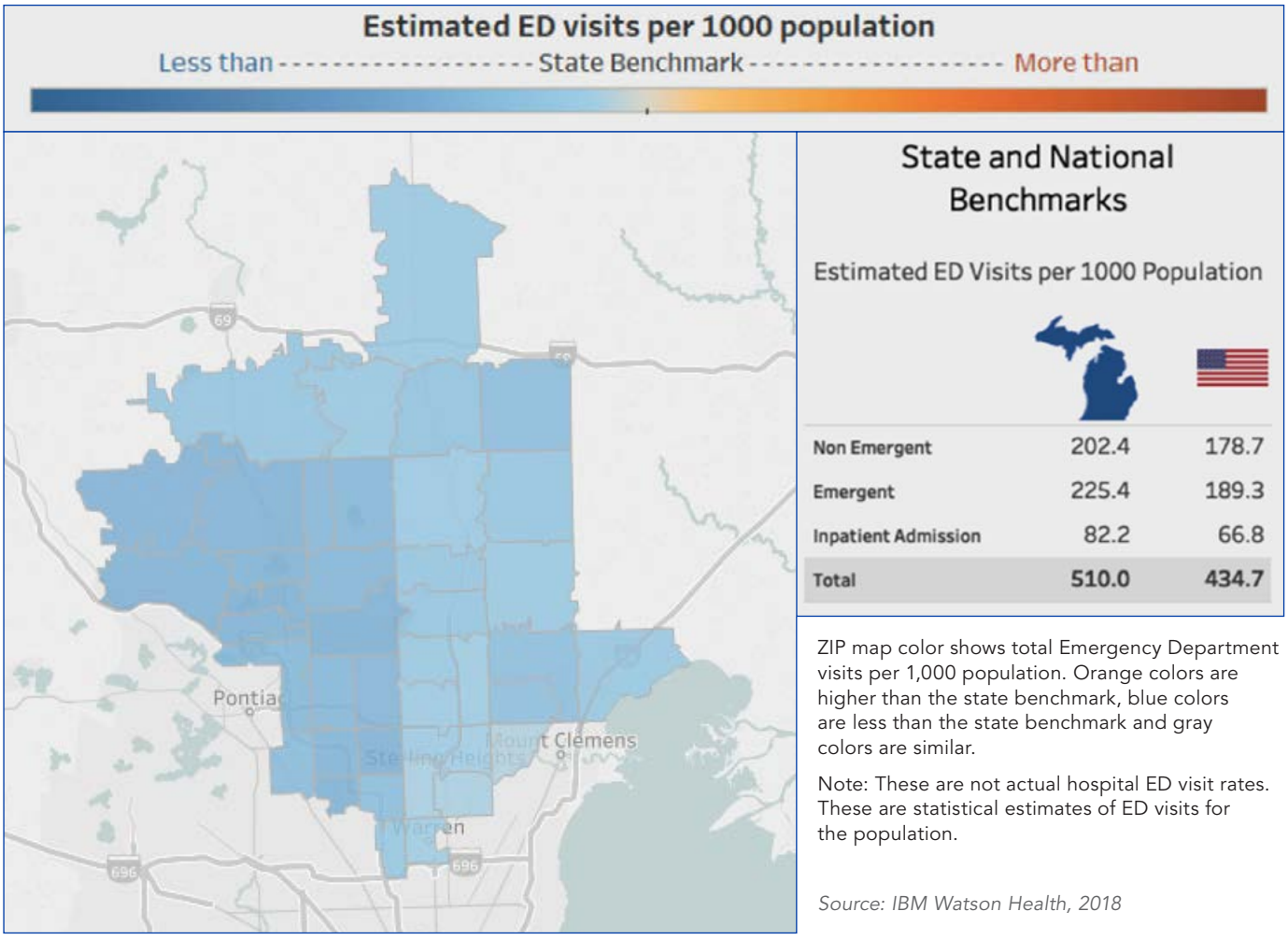
Beaumont, Troy

Based on population characteristics and regional utilization rates, IBM Watson Health projected all Emergency Department visits in this community will increase by 4.4% over the next five years. The highest estimated ED use rate is in the 48038 ZIP code of Clinton Township; 477.1 ED visits per 1,000 residents compared to the Michigan state benchmark of 510 visits and the U.S. benchmark of 435 visits per 1,000.

These ED visits consist 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 can 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 estimated non-emergent ED visits will decrease by an average of 1.1% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate

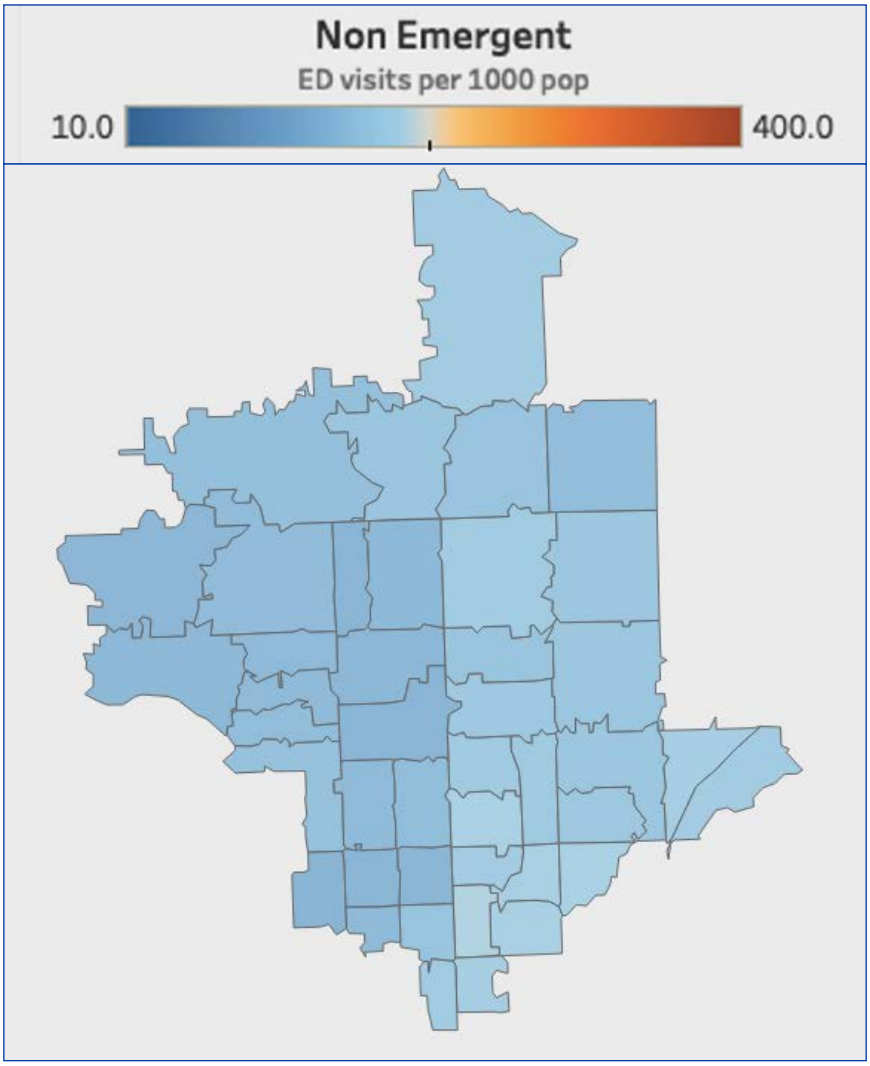


ZIP map color shows total Emergency Department visits per 1,000 population. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark and gray colors are similar.

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 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, cooking classes for children, grocery store tours and food demonstrations to equip families with knowledge and skills to prepare healthy meals. • Establish multi-sector Healthy Troy community coalition to implement community strategies on healthy eating and active living. • Implement initiatives and partner collaborations to increase access to fresh fruits and vegetables and reduce food insecurity. • Provide education on chronic disease prevention and management through the Living Well education series, community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Troy will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • City of Troy • Troy School District
EVALUATION	• Pre/post participant surveys • Partnership agreements • Participation surveys
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase percent of physically active adults. • Increase education and opportunities for physical education.
STRATEGIES AND TACTICS	• Implement community-wide walking, wellness and fitness activities to increase physical activity and social interaction across the community. • Provide training for physical education teachers to implement the Coordinated Approach to Child Health (CATCH) PE nutrition and physical activity program. • Implement the program A Matter of Balance: Managing Concerns About Falls to support physical activity among older adults. • Provide individual assessments, education and fall risk reduction programs for seniors to maintain physically active lives.
COMMITTED RESOURCES	Beaumont, Troy will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Sterling Heights and Troy Parks and Recreation • Oakland Mall • Healthy Troy coalition • Waterford School District • Avondale School District • Orion Township Community Center
EVALUATION	• Physical Education teacher evaluation surveys • Up and Go Test • Walking log metrics • Participant surveys • 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 educational sessions on cholesterol, blood pressure and weight management. • Implement Blood Pressure Self-Monitoring Program in churches and community organizations. • Provide AED and Hands-Free CPR training across the community. • Mentor and assist schools in attaining the state Heart Safe School designation and provide AED equipment as needed. • Provide support programs, self-management and education on cardiovascular health, stroke prevention and recovery.
COMMITTED RESOURCES	Beaumont, Troy 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 in deaths from sudden cardiac arrest. • Decrease percent of adult hypertension. • Decrease in CVD risk factors.
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, Troy 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

*Please see next page for Priority #1, **Goal #3:** Decrease rate of new diabetes cases and of diabetes complications.*

Priority #1 *cont.*

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

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 new incidences of diabetes.
STRATEGIES AND TACTICS	• Provide support groups for those with diabetes and their caregivers. • Provide the Diabetes PATH chronic disease self-management program. Explore implementation of online version. • Implement the National Diabetes Prevention Program for adults with pre-diabetes or at high risk for diabetes.
COMMITTED RESOURCES	Beaumont, Troy will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• National Kidney Foundation of Michigan • AAA 1-B • Local churches • Libraries • Senior centers • Community organizations
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. • Improve access and coordination of services for substance abuse disorder through creating multidisciplinary care teams using community peer recovery coaches and linking individuals to community resources.
COMMITTED RESOURCES	Beaumont, Troy will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies • Universal Health Services • CARE of Southeast Michigan • Families Against Narcotics
EVALUATION	• Partnership agreements • Patients connected to community resources
Objective #2: Provide education program and services..	
OUTCOME MEASURES	• Increase knowledge and awareness of mental health.
STRATEGIES AND TACTICS	• Implement mindfulness classes to address anxiety, depression, stress and chronic pain. • Provide education on mental health through community events and Beaumont Speakers Bureau. • Provide regular postpartum depression, anxiety and parenting concerns support group.
COMMITTED RESOURCES	Beaumont, Troy will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies
EVALUATION	• Perceived Stress Scale • Self-Compassion Scale • Qualitative measures • Participant rates • Participation surveys

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Beaumont, Wayne

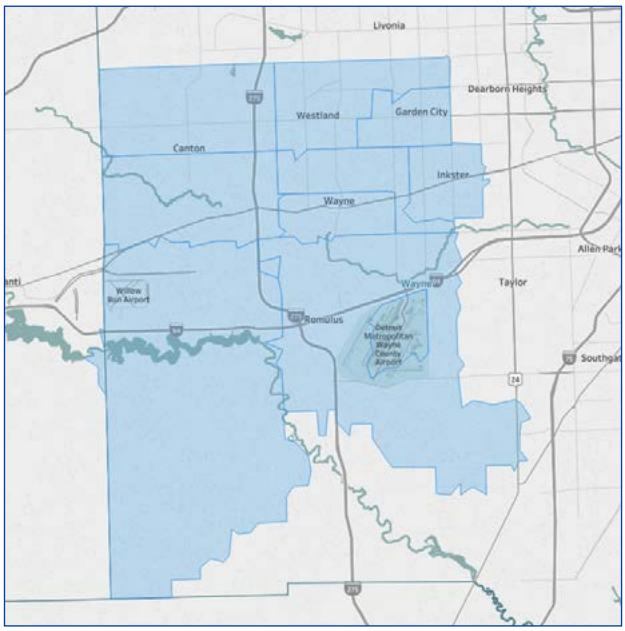
Beaumont, Wayne

Beaumont, Wayne opened its doors to western Wayne communities in 1957. This full-service hospital is the only hospital in the Wayne, Westland, Garden City, Canton, Inkster and Romulus area as a Level III designated trauma center. The hospital has a longstanding partnership with Detroit Metropolitan Airport and the Centers for Disease Control and Prevention to handle a wide variety of health and communicable disease concerns including mass trauma and emergency patients.

Community served

The Beaumont, Wayne community 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. A table which lists the ZIP codes included in the community definition can be found in ***Appendix B***.

Beaumont, Wayne: Map of community served



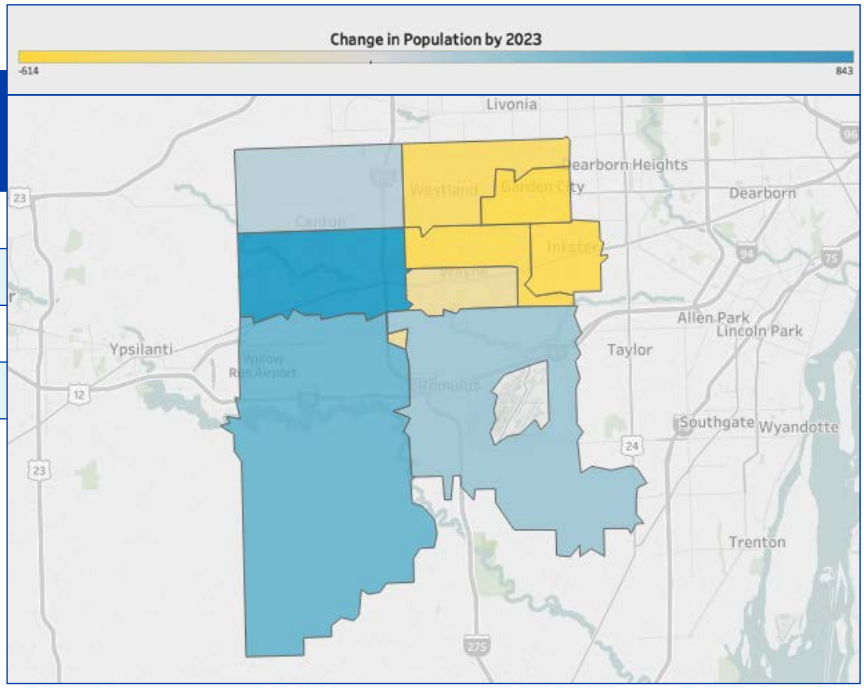
Source: Beaumont Health, 2019

Demographic and socioeconomic summary

The population of the community served is expected to decrease 0.3% by 2023, a drop of almost 900 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 four of the nine community ZIP codes are expected to experience growth in the next five years:

Zip Codes	Growth in five years (# of people)
48188 Canton	**843**
48111 Belleville	**491**
48174 Romulus	**249**
48187 Canton	**152**

2018 - 2023 Total population projected change by ZIP code

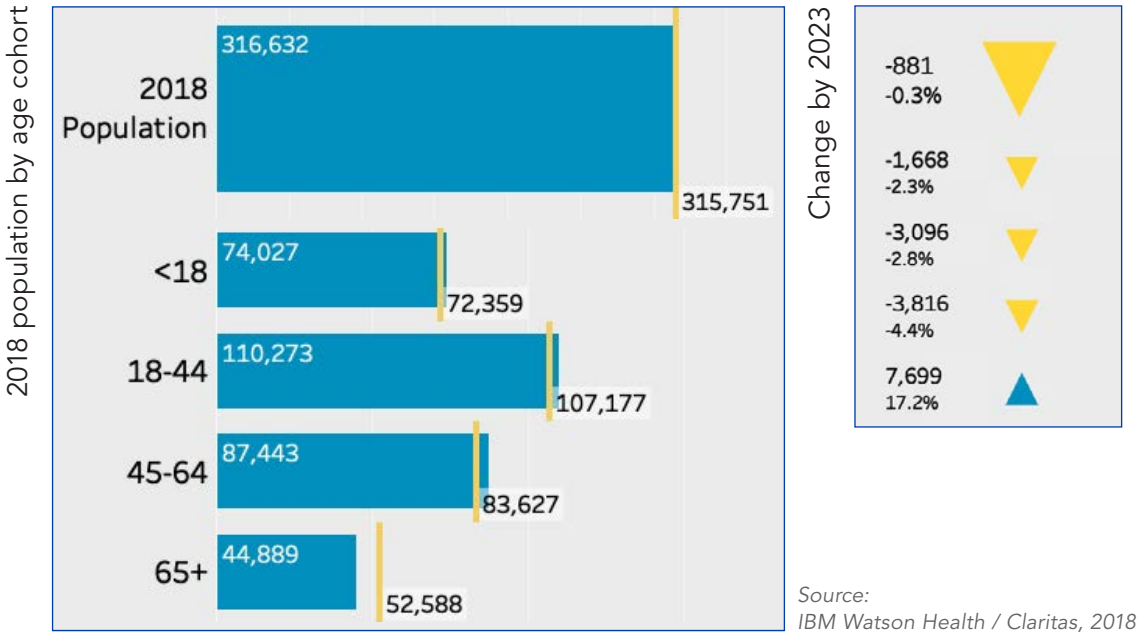


Source:
IBM Watson Health / Claritas, 2018

WAYNE

The community's population skews younger with 34.8% of the population ages 18-44 and 23.4% under age 18. The largest cohort (18-44) is expected to decrease by 3,096 people by 2023 and the age 65-plus cohort (14.2% of the population) is the only age group expected to grow (17.2% increase) over the next five years, adding 7,699 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

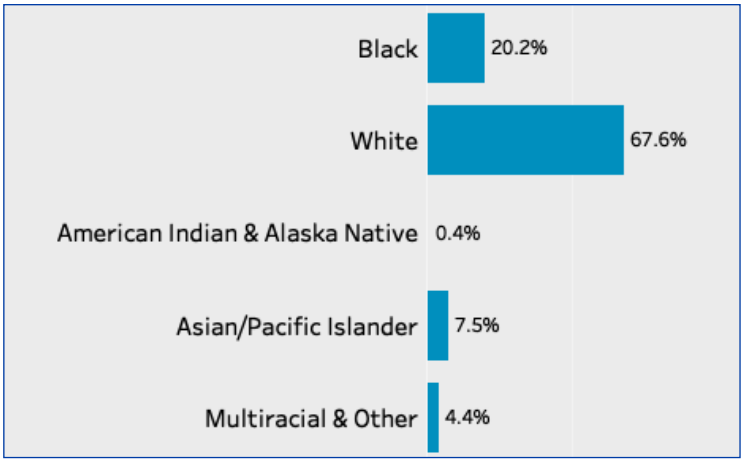
Population distribution by age



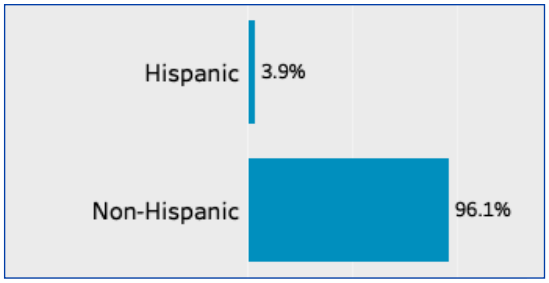
Source: IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The largest racial groups in the community are white (67.6%) and black (20.2%), but both populations are expected to decline over the next five years. The Asian/Pacific Islander and multi-racial populations are projected to grow significantly by 2023 (17% and 9% respectively). The Hispanic population (all races) is expected to grow by 9.9% or 1,200 people by 2023, while the non-Hispanic population (all races) is expected to decline by more than 2,100 people (-0.7%) by 2023.

2018 Population by race

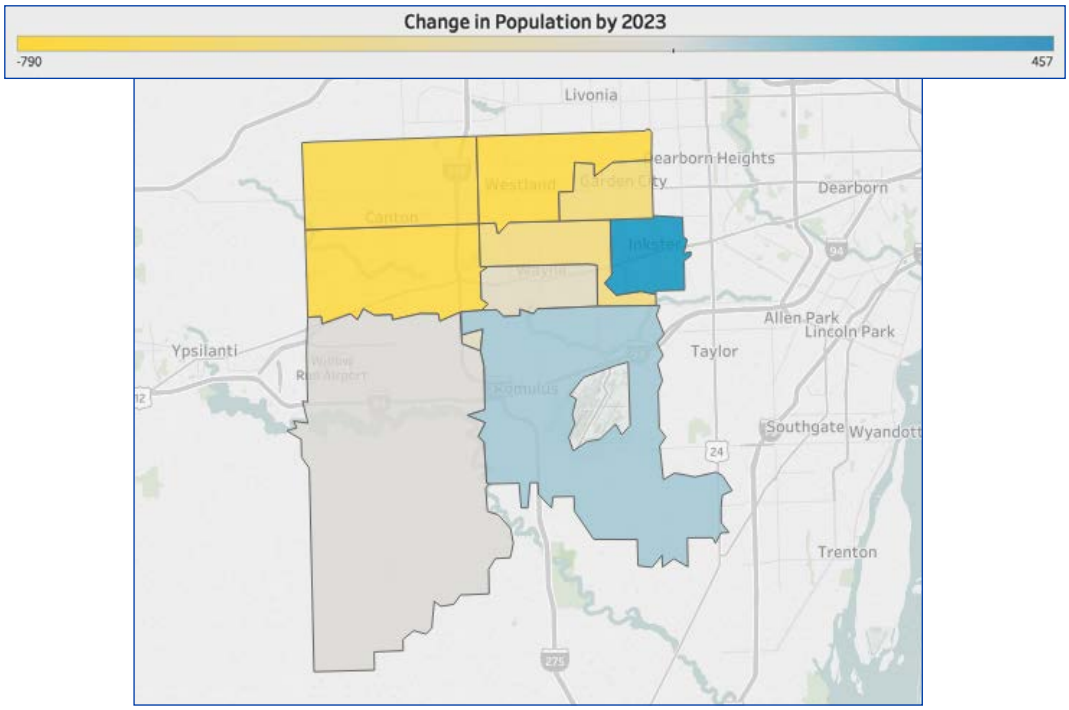


2018 Population by ethnicity



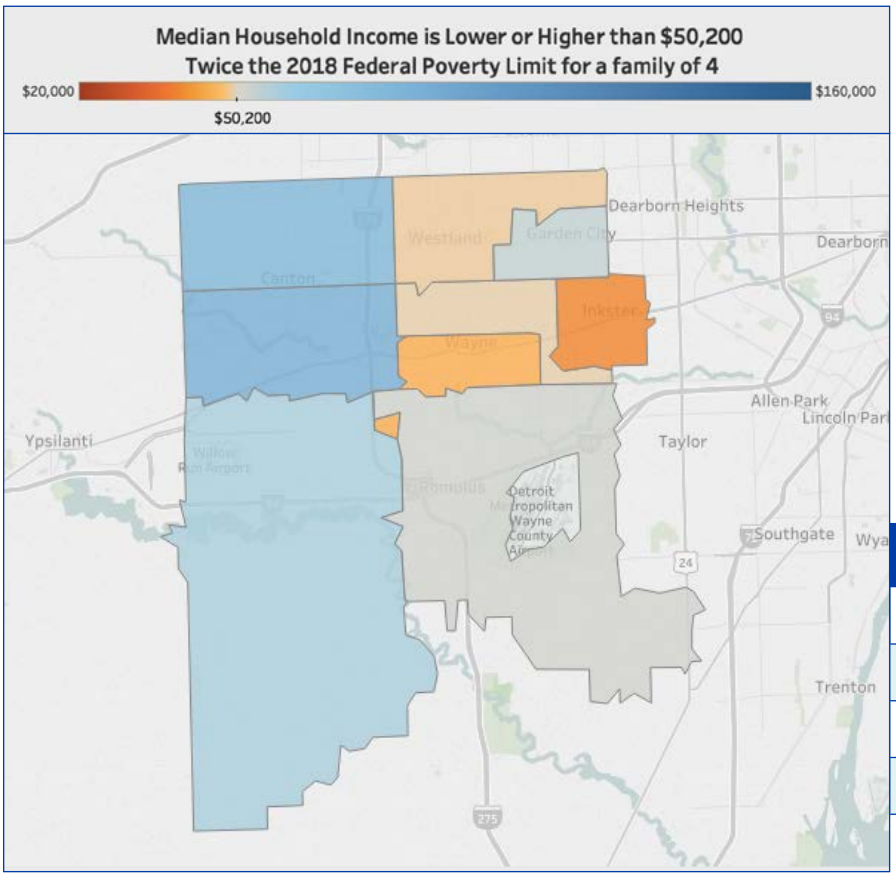
Source: IBM Watson Health / Claritas, 2018

2018 - 2023 White race population projected change by ZIP code



Source: IBM Watson Health / Claritas, 2018

2018 Median household income by ZIP code



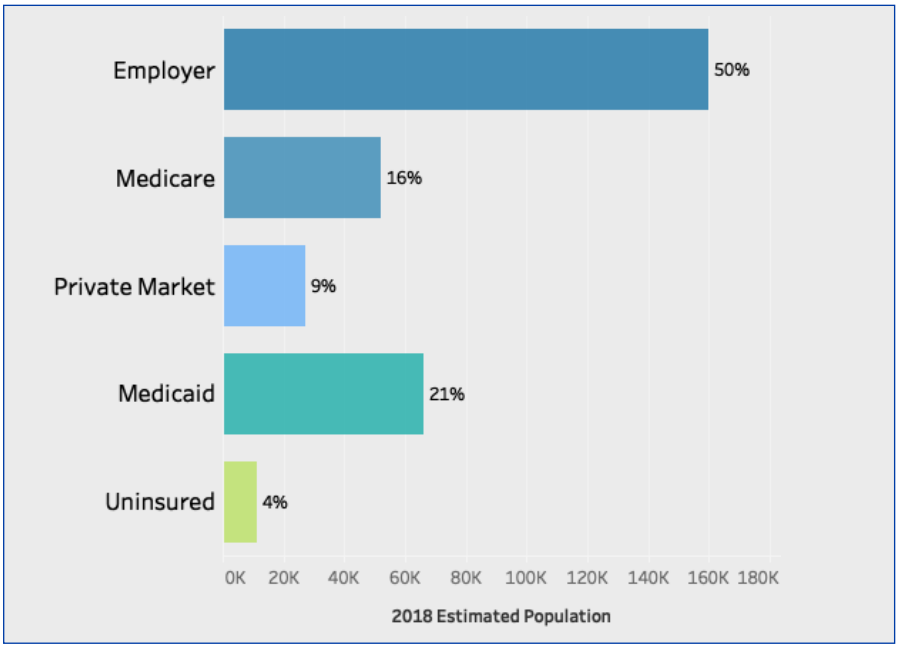
The 2018 median household income for the United States was $62,175 and $55,727 for the state of Michigan. The median household income for the ZIP codes within this community ranged from $34,676 for ZIP code 48141 - Inkster to $97,986 for ZIP code 48188 - Canton. There were four (4) ZIP codes with median household incomes less than $50,200, twice the 2018 federal poverty limit for a family of four:

Zip Codes	Income
48141 Inkster	**$34,676**
48184 Wayne	**$42,368**
48185 Westland	**$48,313**
48186 Westland	**$48,938**

Source: IBM Watson Health / Claritas, 2018

Half of the population (50%) was insured through employer sponsored health coverage followed by those with Medicaid (21%) and Medicare (16%). The remainder of the population was divided between 4% uninsured and 9% private market (the purchasers of coverage directly or through the health insurance marketplace).

2018 Estimated distribution of covered lives by insurance category



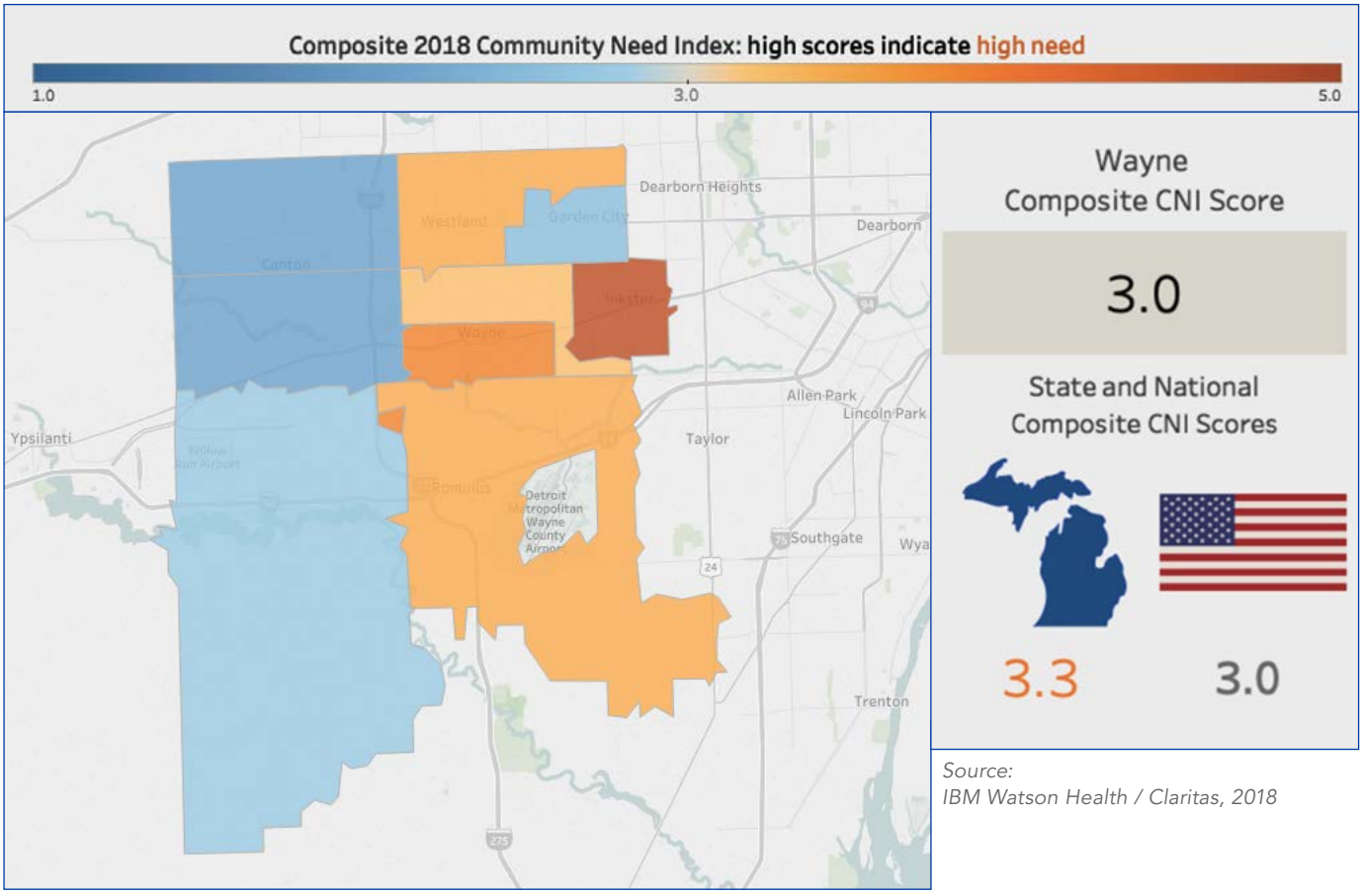
Source: IBM Watson Health / Claritas, 2018

Beaumont, Wayne

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 composite CNI score for the community served was 3.0, the same as the CNI national average and lower than the state average of 3.3. The 48141 ZIP code of Inkster was the only ZIP code with a CNI score greater than 4.5, pointing to potentially higher health needs among the population.

2018 Community need index by ZIP code



Source:
IBM Watson Health / Claritas, 2018

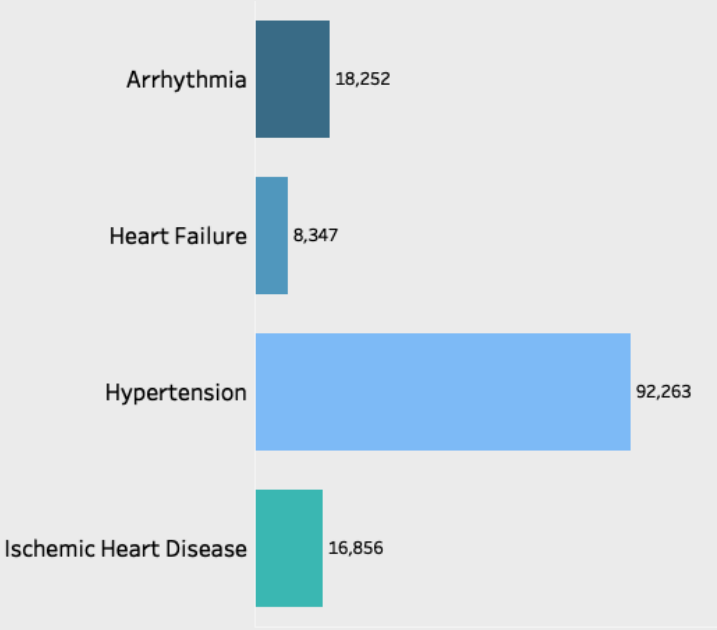
ZIP Map where color shows the community need index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

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 were over 92,000 estimated cases in the community overall. The 48185 ZIP code of Westland had the most estimated cases of each heart disease type and the highest estimated prevalence rates for arrhythmia (65 cases per 1,000 population), heart failure (30 cases per 1,000 population) and ischemic heart disease (60 cases per 1,000 population). The 48135 ZIP code of Garden City had the highest estimated prevalence rates for hypertension (310 cases per 1,000 population).

2018 Estimated heart disease cases



2018 Cases

Bar chart shows total number and prevalence rate of 2018 estimated heart disease cases for each of four types: arrhythmia, heart failure, hypertension and ischemic heart disease

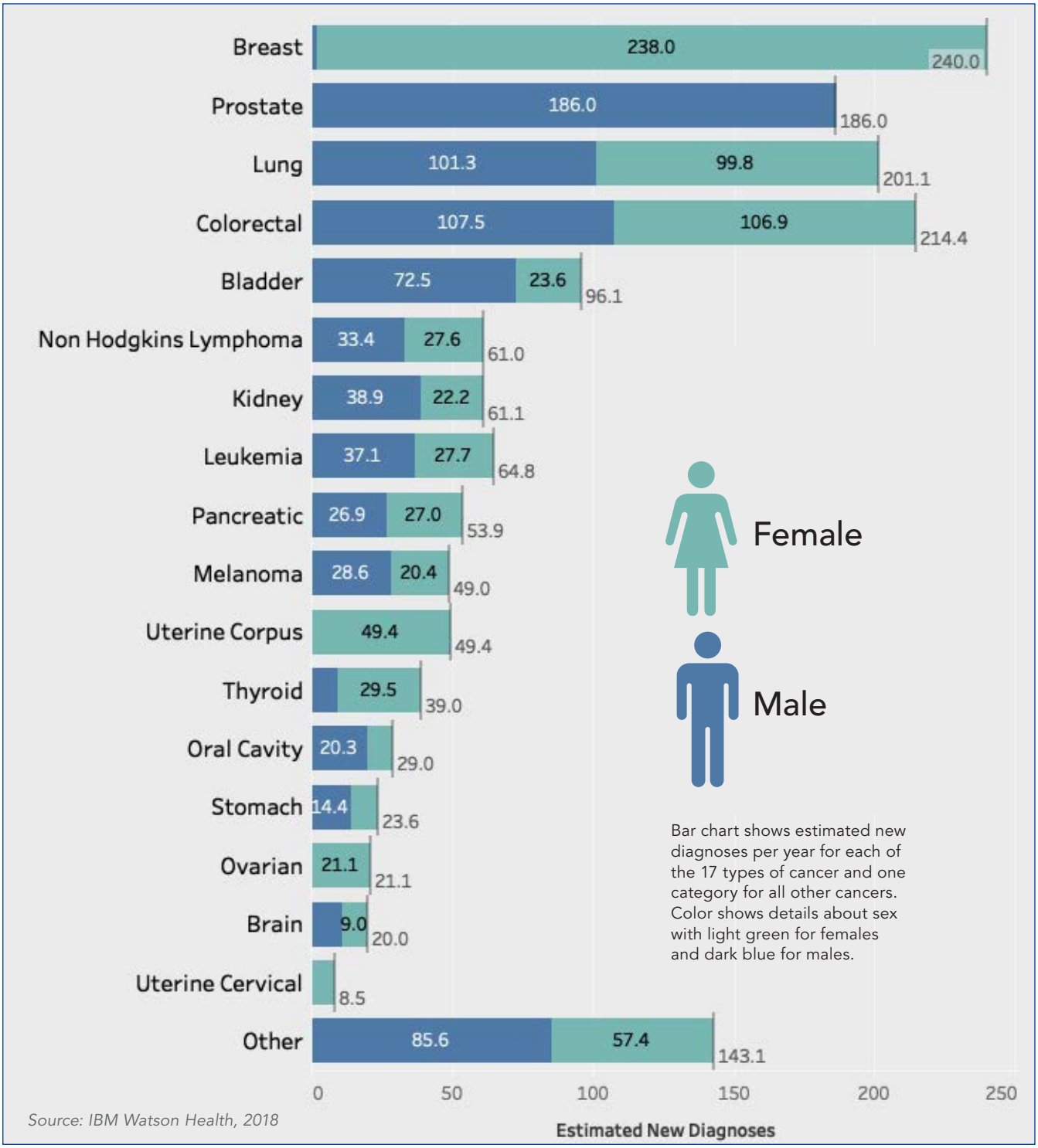
Note: An individual patient may have more than one type of heart disease. Therefore, the sum of all four heart disease types is not a unique count of individuals.

Source: IBM Watson Health, 2018

Beaumont, Wayne

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

2018 Estimated new cancer cases



Source: IBM Watson Health, 2018

Estimated cancer cases and projected five-year change by type

Cancer type	2018 Estimated new cases	2023 Estimated new cases	5-year growth (%)
Bladder	96	107	11.3%
Brain	20	21	3.7%
Breast	240	253	5.3%
Colorectal	214	202	-5.6%
Kidney	61	66	7.9%
Leukemia	65	70	8.2%
Lung	201	214	6.4%
Melanoma	49	54	10.2%
Non-Hodgkin's lymphoma	61	66	8.0%
Oral cavity	29	31	7.6%
Ovarian	21	22	4.2%
Pancreatic	54	60	11.4%
Prostate	186	184	-0.9%
Stomach	24	25	5.2%
Thyroid	39	43	9.1%
Uterine - cervical	8	8	-3.4%
Uterine - corpus	49	53	7.4%
Other	143	154	7.9%
Grand total	**1,561**	**1,633**	**4.6%**

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

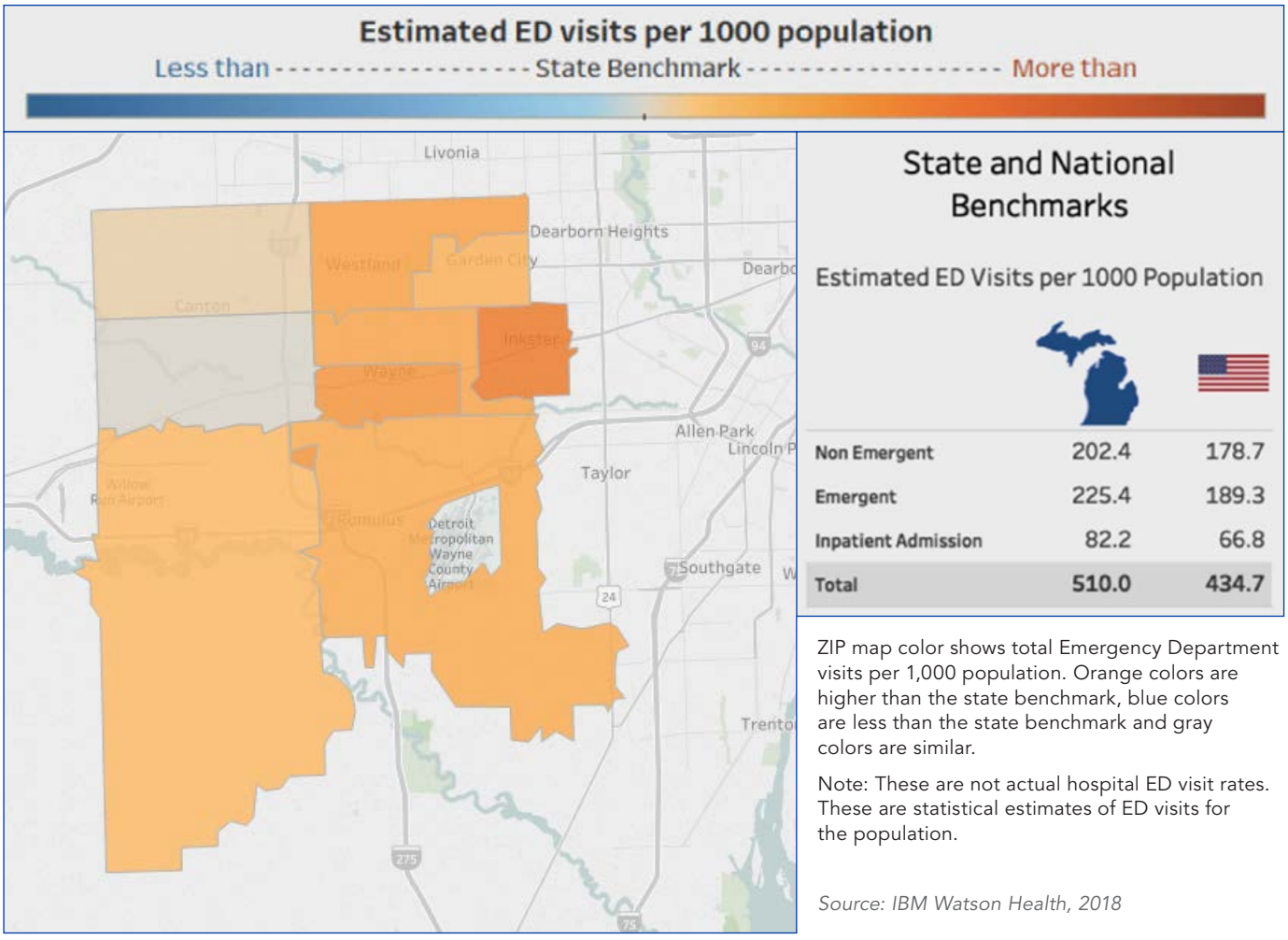
Beaumont, Wayne

Based on population characteristics and regional utilization rates, IBM Watson Health projected all Emergency Department visits in this community will increase by 0.4% over the next five years. The highest estimated ED use rate was in the 48141 ZIP code of Inkster; 735 ED visits per 1,000 residents compared to the Michigan state benchmark of 510 visits and the U.S. benchmark of 435 visits per 1,000.

These 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 were 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 can 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 estimated non-emergent ED visits will decrease by an average of 3.2% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate

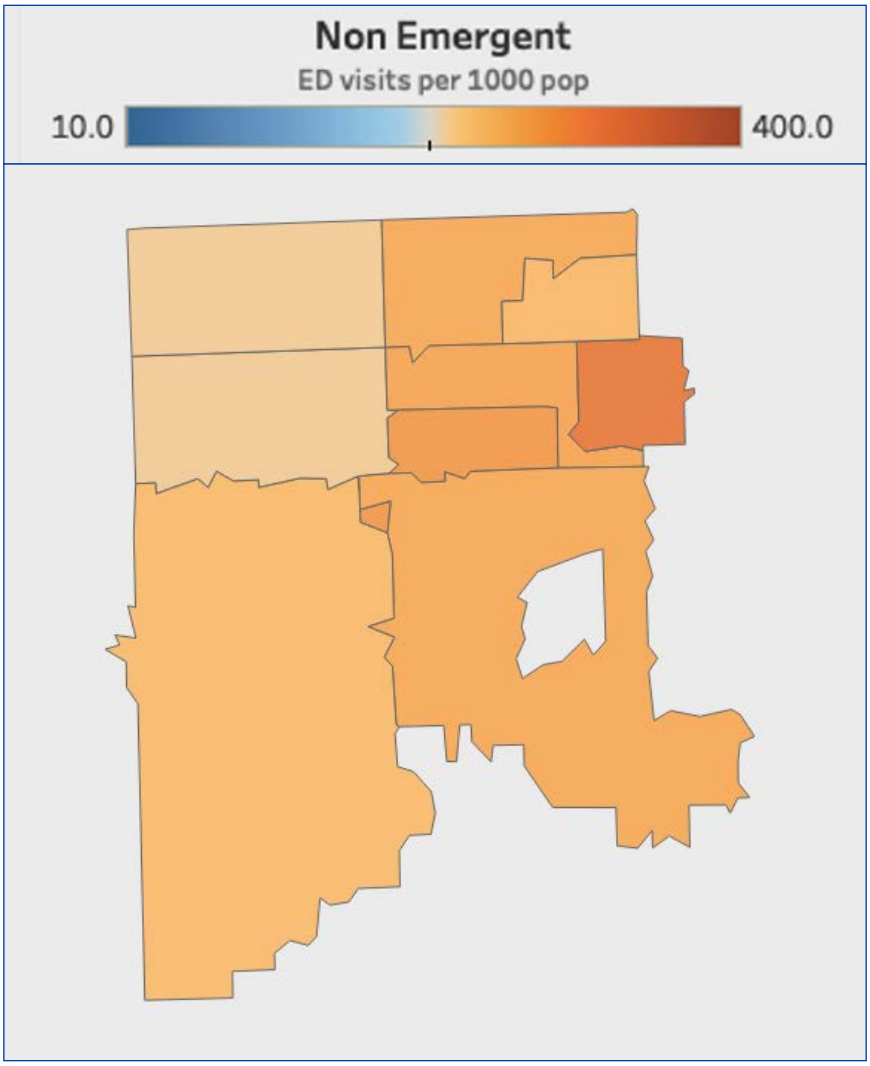


ZIP map color shows total Emergency Department visits per 1,000 population. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark and gray colors are similar.

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 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, cooking classes for children, grocery store tours and food demonstrations to equip families with knowledge and skills to prepare healthy meals. • Continue multi-sector Healthy Wayne and Healthy Westland coalitions 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. • Provide education on chronic disease prevention and management through community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Wayne will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • Healthy Wayne and Healthy Westland coalitions • Cities of Wayne and Westland • Wayne-Westland Community Schools • Michigan State University Extension
EVALUATION	• Pre/post participant surveys • Partnership agreements • Participation surveys
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase percent of physically active adults. • Increase education and opportunities for physical education.
STRATEGIES AND TACTICS	• Implement community-wide walking, wellness and fitness activities to increase physical activity and social interaction across the community. • Support the Healthy Wayne and Healthy Westland coalitions to improve walkability and bikeability across the community.
COMMITTED RESOURCES	Beaumont, Wayne will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Cities of Wayne and Westland • Wayne-Westland Community Schools • Healthy Wayne and Healthy Westland Coalitions • City of Westland Pubic Library • HYPE Recreation Center • Lifetime Fitness Center of Canton • The Dance Academy
EVALUATION	• Participant surveys • 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, Wayne 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, Wayne 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 the Diabetes PATH chronic disease self-management program. Explore implementation of online version. • Implement the National Diabetes Prevention Program for adults with pre-diabetes or at high risk for diabetes.
COMMITTED RESOURCES	Beaumont, Wayne 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 • Local churches • Libraries • Senior centers • Community organizations
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 counseling assessment and care model via telecommunications technology with teens in schools linked to Child and Adolescent Health Centers.
COMMITTED RESOURCES	Beaumont, Wayne will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies • Universal Health Services • Romulus School District • Westwood School District
EVALUATION	• Patients connected to community resources • Partnership agreements
Objective #2: Provide education program and services.	
OUTCOME MEASURES	• Increase knowledge and awareness of mental health.
STRATEGIES AND TACTICS	• Implement depression and anxiety prevention TRAILS program within the Child and Adolescent Health Center. • Provide education on mental health through community events and Beaumont Speakers Bureau. • Support awareness, resources and anti-drug knowledge and attitudes through the Child and Adolescent Health Center substance abuse task force coalitions and Healthy Wayne and Healthy Westland coalitions. • Explore opportunities to expand education on mental health prevention within local schools linked to Child and Adolescent Health Centers.
COMMITTED RESOURCES	Beaumont, Wayne will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Westwood School District • Wayne-Westland School District • Healthy Wayne and Healthy Westland coalitions • City of Romulus • Lifetime Fitness Center of Canton • Detroit Wayne Mental Health Authority
EVALUATION	• Participation rates • Pre/post participant surveys • Unique page views

2019 COMMUNITY HEALTH NEEDS ASSESSMENT

Building Healthier Lives and Communities

Appendices

Steering Committee Members			
Michelle Anderson, Foundation Beaumont Health	Jeanette Driver, Community Affairs Beaumont Health	Richard Kennedy, PhD, Research Beaumont Health	Judith McNeeley, Community Affairs Beaumont Health
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Jeffrey Chicoine, Community Affairs Beaumont Health	Susan Grant, EVP & Chief Nursing Officer Beaumont Health	Thomas Lanni, COO Beaumont Hospital, Dearborn	Lee Ann Odom, President Shared Services Beaumont Health
David Claeys, President Beaumont Hospitals, Dearborn and Farmington Hills	Debra Guido-Allen, COO Beaumont Hospital, Royal Oak	Amanda LaVoie, Administration Beaumont Hospital, Troy	Constance O'Malley, President Outpatient Services Beaumont Health
Diane DiFiore, Case Management Beaumont Health	Victoria Hollingsworth, Heart, Vascular & Neuroscience Beaumont Hospital, Royal Oak	James Lynch, M.D., Interim President Beaumont Hospitals, Grosse Pointe and Troy	Bethany Parish, Cancer Center Beaumont Hospital, Farmington Hills

2019 Beaumont Health CHNA Steering Committee

Executive Sponsor

Mary Zatina, SVP Government Relations & Community Affairs

Project Managers

Betty Priskorn, VP Community Health & Outreach
Lindsey West, Director Community Health & Outreach
Quentin Moore, Director Community Health Research & Evaluation

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Joan Phillips, Chief Nursing Officer Operations Beaumont Health	Mary Stahl, Population Health Beaumont Medical Group	Lindsey West, Community Health Beaumont Health	Mary Zatina, SVP Govt. Relations & Community Affairs Beaumont Health
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ZIP code	PO name	Dominant county	Beaumont overall	Dearborn	Farmington Hills	Grosse Pointe	Royal Oak	Taylor	Trenton	Troy	Wayne
48002	Allenton	St. Clair	X							X	
48003	Almont	Lapeer	X				X			X	
48005	Armada	Macomb	X							X	
48009	Birmingham	Oakland	X				X				
48015	Center Line	Macomb	X				X				
48017	Clawson	Oakland	X				X				
48021	Eastpointe	Macomb	X			X					
48025	Franklin	Oakland	X				X				
48026	Fraser	Macomb	X			X	X				
48030	Hazel Park	Oakland	X				X				
48033	Southfield	Oakland	X		X		X				
48034	Southfield	Oakland	X		X		X				
48035	Clinton Township	Macomb	X			X					
48038	Clinton Township	Macomb	X							X	
48042	Macomb	Macomb	X				X			X	
48044	Macomb	Macomb	X				X			X	
48045	Harrison Township	Macomb	X			X					
48047	New Baltimore	Macomb	X							X	
48051	New Baltimore	Macomb	X							X	
48065	Romeo	Macomb	X				X			X	
48066	Roseville	Macomb	X			X	X				
48067	Royal Oak	Oakland	X				X				
48069	Pleasant Ridge	Oakland	X				X				
48070	Huntington Woods	Oakland	X				X				
48071	Madison Heights	Oakland	X				X			X	
48072	Berkley	Oakland	X				X				
48073	Royal Oak	Oakland	X				X				
48075	Southfield	Oakland	X		X		X				
48076	Southfield	Oakland	X				X				

ZIP code	PO name	Dominant county	Beaumont overall	Dearborn	Farmington Hills	Grosse Pointe	Royal Oak	Taylor	Trenton	Troy	Wayne
48080	Saint Clair Shores	Macomb	X			X					
48081	Saint Clair Shores	Macomb	X			X					
48082	Saint Clair Shores	Macomb	X			X					
48083	Troy	Oakland	X				X			X	
48084	Troy	Oakland	X				X			X	
48085	Troy	Oakland	X				X			X	
48088	Warren	Macomb	X				X				
48089	Warren	Macomb	X			X	X				
48091	Warren	Macomb	X				X				
48092	Warren	Macomb	X				X			X	
48093	Warren	Macomb	X				X				
48094	Washington	Macomb	X				X			X	
48095	Washington	Macomb	X				X			X	
48096	Ray	Macomb	X							X	
48098	Troy	Oakland	X				X			X	
48101	Allen Park	Wayne	X	X				X			
48111	Belleville	Wayne	X								X
48117	Carleton	Monroe	X						X		
48120	Dearborn	Wayne	X	X							
48122	Melvindale	Wayne	X	X				X			
48124	Dearborn	Wayne	X	X				X			
48125	Dearborn Heights	Wayne	X	X				X			
48126	Dearborn	Wayne	X	X				X			
48127	Dearborn Heights	Wayne	X	X	X			X			
48128	Dearborn	Wayne	X	X				X			
48134	Flat Rock	Wayne	X	X				X	X		
48135	Garden City	Wayne	X		X						X
48138	Grosse Ile	Wayne	X					X	X		

ZIP code	PO name	Dominant county	Beaumont overall	Dearborn	Farmington Hills	Grosse Pointe	Royal Oak	Taylor	Trenton	Troy	Wayne
48141	Inkster	Wayne	X	X				X			X
48146	Lincoln Park	Wayne	X	X				X			
48150	Livonia	Wayne	X		X						
48152	Livonia	Wayne	X		X		X				
48154	Livonia	Wayne	X		X		X				
48164	New Boston	Wayne	X	X				X	X		
48166	Newport	Monroe	X						X		
48167	Northville	Oakland	X		X		X				
48168	Northville	Wayne	X		X		X				
48170	Plymouth	Wayne	X		X						
48173	Rockwood	Wayne	X					X	X		
48174	Romulus	Wayne	X	X				X	X		X
48179	South Rockwood	Monroe	X					X	X		
48180	Taylor	Wayne	X	X				X			
48183	Trenton	Wayne	X	X				X	X		
48184	Wayne	Wayne	X	X				X			X
48185	Westland	Wayne	X		X						X
48186	Westland	Wayne	X	X							X
48187	Canton	Wayne	X								X
48188	Canton	Wayne	X								X
48192	Wyandotte	Wayne	X	X				X	X		
48193	Riverview	Wayne	X	X				X	X		
48195	Southgate	Wayne	X	X				X	X		
48203	Highland Park	Wayne	X				X				
48204	Detroit	Wayne	X		X						
48205	Detroit	Wayne	X			X					
48207	Detroit	Wayne	X			X					
48209	Detroit	Wayne	X	X							

ZIP code	PO name	Dominant county	Beaumont overall	Dearborn	Farmington Hills	Grosse Pointe	Royal Oak	Taylor	Trenton	Troy	Wayne
48210	Detroit	Wayne	X	X							
48212	Hamtramck	Wayne	X				X				
48213	Detroit	Wayne	X			X					
48214	Detroit	Wayne	X			X					
48215	Detroit	Wayne	X			X					
48217	Detroit	Wayne	X	X				X			
48218	River Rouge	Wayne	X	X				X			
48219	Detroit	Wayne	X		X		X				
48220	Ferndale	Oakland	X				X				
48221	Detroit	Wayne	X		X		X				
48223	Detroit	Wayne	X		X		X				
48224	Detroit	Wayne	X			X					
48225	Harper Woods	Wayne	X			X					
48227	Detroit	Wayne	X		X						
48228	Detroit	Wayne	X	X	X						
48229	Ecorse	Wayne	X	X				X			
48230	Grosse Pointe	Wayne	X			X					
48234	Detroit	Wayne	X			X	X				
48235	Detroit	Wayne	X		X		X				
48236	Grosse Pointe	Wayne	X			X					
48237	Oak Park	Oakland	X				X				
48238	Detroit	Wayne	X		X						
48239	Redford	Wayne	X		X		X				
48240	Redford	Wayne	X		X		X				
48242	Detroit	Wayne	X	X				X	X		X
48301	Bloomfield Hills	Oakland	X				X				
48302	Bloomfield Hills	Oakland	X				X				
48304	Bloomfield Hills	Oakland	X				X			X	

ZIP code	PO name	Dominant county	Beaumont overall	Dearborn	Farmington Hills	Grosse Pointe	Royal Oak	Taylor	Trenton	Troy	Wayne
48306	Rochester	Oakland	X				X			X	
48307	Rochester	Oakland	X				X			X	
48309	Rochester	Oakland	X				X			X	
48310	Sterling Heights	Macomb	X				X			X	
48312	Sterling Heights	Macomb	X				X			X	
48313	Sterling Heights	Macomb	X				X			X	
48314	Sterling Heights	Macomb	X				X			X	
48315	Utica	Macomb	X				X			X	
48316	Utica	Macomb	X				X			X	
48317	Utica	Macomb	X				X			X	
48320	Keego Harbor	Oakland	X				X				
48322	West Bloomfield	Oakland	X		X		X				
48323	West Bloomfield	Oakland	X		X		X				
48324	West Bloomfield	Oakland	X				X				
48326	Auburn Hills	Oakland	X				X			X	
48327	Waterford	Oakland	X				X				
48328	Waterford	Oakland	X				X				
48329	Waterford	Oakland	X				X				
48331	Farmington	Oakland	X		X		X				
48334	Farmington	Oakland	X		X		X				
48335	Farmington	Oakland	X		X		X				
48336	Farmington	Oakland	X		X		X				
48340	Pontiac	Oakland	X				X				
48341	Pontiac	Oakland	X				X				
48342	Pontiac	Oakland	X				X				
48346	Clarkston	Oakland	X				X				
48348	Clarkston	Oakland	X				X			X	
48357	Highland	Oakland	X				X				

ZIP code	PO name	Dominant county	Beaumont overall	Dearborn	Farmington Hills	Grosse Pointe	Royal Oak	Taylor	Trenton	Troy	Wayne
48359	Lake Orion	Oakland	X				X			X	
48360	Lake Orion	Oakland	X				X			X	
48362	Lake Orion	Oakland	X				X			X	
48363	Oakland	Oakland	X				X			X	
48367	Leonard	Oakland	X				X			X	
48370	Oxford	Oakland	X				X			X	
48371	Oxford	Oakland	X				X			X	
48374	Novi	Oakland	X		X		X				
48375	Novi	Oakland	X		X		X				
48377	Novi	Oakland	X		X		X				
48380	Milford	Oakland	X				X				
48381	Milford	Oakland	X				X				
48382	Commerce Township	Oakland	X				X				
48383	White Lake	Oakland	X				X				
48386	White Lake	Oakland	X				X				
48390	Walled Lake	Oakland	X		X		X				
48393	Wixom	Oakland	X		X		X				
48428	Dryden	Lapeer	X				X			X	
48444	Imlay City	Lapeer	X							X	
48455	Metamora	Lapeer	X				X			X	
48462	Ortonville	Oakland	X				X			X	

Category	Public health indicator	Source
Access to Care	Uninsured Adults 18-64 Years	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Health Care Access - No Personal Doctor	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Primary Care Physicians per 100,000 Population	2015 Area Health Resource File/American Medical Association
	Population to One Primary Care Physician	2015 Area Health Resource File/American Medical Association
	Price-Adjusted Medicare Reimbursements per Enrollee	2015 Dartmouth Atlas of Health Care
	Uninsured Adults < 65 Years	2015 Small Area Health Insurance Estimates, United States Census Bureau
	Uninsured Children < 19 Years	2015 Small Area Health Insurance Estimates, United States Census Bureau
	Dentists per 100,000 Population	2016 Area Health Resource File/National Provider Identification File
	Population to One Dentist	2016 Area Health Resource File/National Provider Identification File
	Population to One Non-Physician Primary Care Provider	2017 CMS; National Provider Identification
	Population to One Mental Health Provider	2017 CMS; National Provider Identification
Conditions/Diseases	Heart Disease (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Stroke Survivors (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Asthma (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Arthritis (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Chronic Obstructive Pulmonary Disease (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Chronic Kidney Disease (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Diabetes Prevalence (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Heart Failure (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Hypertension (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Autism Spectrum Disorders (<65 Years Old)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Hospitalizations, All (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Heart Disease (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Arthropathies (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Cerebrovascular Diseases (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Chronic Obstructive Pulmonary Disease & Bronchiectasis (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Skin and Subcutaneous Tissue Disease (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services

Category	Public health indicator	Source
Conditions/Diseases	Kidney Disease - Renal Failure (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Diabetes Mellitus (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Hypertension, Excluding Hypertensive Heart Disease (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Anemias (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Diverticula of Intestine (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Other Hospitalization Conditions (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Diabetes Diagnoses, Age 20+	2014 CDC Diabetes Interactive Atlas
	Obesity, Adult	2014 CDC Diabetes Interactive Atlas
	Obesity, Weight Status	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Asthma	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Chronic Obstructive Pulmonary Disease	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Arthritis	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Heart Attack	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Angina or Coronary Heart Disease	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Stroke	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Cardiovascular Disease - All	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Diabetes	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Kidney Disease	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Injury and Poisoning (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
Environment	Blood Lead Level - Elevated Results (≥ 5ug/dl) in Children Ages 1-2	2017 Michigan Department of Health and Human Services, Childhood Lead Poisoning Prevention Program
	Blood Lead Level - Elevated Results (≥ 5ug/dl) in Children Ages 1-2 on Medicaid	2017 Michigan Department of Health and Human Services, Childhood Lead Poisoning Prevention Program
	Access to Exercise Opportunities	2018 County Health Rankings & Roadmaps
	Severe Housing Problems	2018 County Health Rankings & Roadmaps; Comprehensive Housing Affordability Strategy (CHAS) data, U.S. Department of Housing and Urban Development
	Daily Particulate Matter Days	2012 Environmental Public Health Tracking Network

Category	Public health indicator	Source
Environment	Residential Segregation - Black/White	2012-2016 American Community Survey, 5-year estimates
	Residential Segregation - Non-White/White	2012-2016 American Community Survey, 5-year estimates
	Social and Membership Associations	2015 County Business Patterns
	Food Insecurity	2015 Map the Meal Gap from Feeding America
	Food - Limited Access to Healthy Foods	2015 United States Department of Agriculture
	Food Environment Index	2015 USDA Food Environment Atlas, Map the Meal Gap from Feeding America
	Violent Crime Rate	2012-2014 Uniform Crime Reporting (UCR) Program
Health Behaviors	Driving Alone to Work	2012-2016 American Community Survey, 5-year estimates
	Driving Alone to Work - Long Commute	2012-2016 American Community Survey, 5-year estimates
	Drug: Non-medical Use of Pain Relievers - Percent of Population Age 12+ Reporting	2014 Substance Abuse and Mental Health Services Administration
	Drug: Dependence - Percent of Population Age 12+ Reporting	2014 Substance Abuse and Mental Health Services Administration
	Physical Inactivity	2014 CDC Diabetes Interactive Atlas
	No Leisure Time Physical Activity	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Cigarette Smoking - Adult (State)	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Alcohol Binge Drinking (Adults)	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Seatbelt Use	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	No Routine Checkup in Past Year	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Insufficient Sleep	2016 Behavioral Risk Factor Surveillance System
	Cigarette Smoking - Adult (US)	2016 Behavioral Risk Factor Surveillance System
	Alcohol Binge or Heavy Drinking (Adults)	2016 Behavioral Risk Factor Surveillance System
	Drug: Opioid Prescriptions per 100 Persons	2017 Centers for Disease Control and Prevention
	Drug: Marijuana Use (High School)	2017-2018 Michigan School Health Survey System; Michigan Department of Education
	Alcohol Binge Drinking (High School)	2017-2018 Michigan School Health Survey System; Michigan Department of Education
Health Status	General Health Fair or Poor	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Poor Physical Health on at Least 14 Days in the Past Month	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Activity Limitation on at Least 14 Days in the Past Month	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Years of Potential Life Lost	2014-2016 National Center for Health Statistics; Mortality Files
	Frequent Physical Distress	2016 Behavioral Risk Factor Surveillance System
	Poor or Fair Health	2016 Behavioral Risk Factor Surveillance System
	Physically Unhealthy Days	2016 Behavioral Risk Factor Surveillance System

Category	Public health indicator	Source
Injury & death	Heart Disease Death Rate	1999-2016 CDC WONDER Online Database; Compressed Mortality File 1999-2016
	Chronic Lower Respiratory Disease (CLRD) Death Rate	1999-2016 CDC WONDER Online Database; Compressed Mortality File 1999-2016
	Stroke Death Rate	1999-2016 CDC WONDER Online Database; Compressed Mortality File 1999-2016
	Unintentional Death Rate	1999-2016 CDC WONDER Online Database; Compressed Mortality File 1999-2016
	Injury Deaths - Excluding Non-Injury Deaths	1999-2016 CDC WONDER Online Database; Compressed Mortality File 1999-2016
	Motor Vehicle Traffic Death	1999-2016 CDC WONDER Online Database; Compressed Mortality File 1999-2016
	Diabetes Diagnoses, Age 20+	2014 CDC Diabetes Interactive Atlas
	Motor Vehicle Crash Death	2010-2016 CDC WONDER mortality data
	Homicides	2010-2016 Compressed Mortality File
	Firearm Fatalities	2012-2016 CDC WONDER mortality data
	Injury Deaths - Including Injury Related Deaths	2012-2016 CDC WONDER mortality data
	Alcohol-Impaired Driving Deaths	2012-2016 Fatality Analysis Reporting System
	Drug Overdose Deaths (2014-2016)	2014-2016 CDC WONDER mortality data
	Alcohol-Induced Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Chronic Liver Disease Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Chronic Lower Respiratory Disease Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Diabetes-Related Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Heart Disease Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Homicides (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Kidney Disease Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Stroke Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Injury Death Rate - Unintentional Injury Deaths (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Drug-Related Deaths (2017)	2017 Centers for Disease Control and Prevention
	Heart Disease Age-Adjusted Mortality (2017 Top 5 Causes)	2017 Geocoded Michigan Death Certificate Registry. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services

Category	Public health indicator	Source
Injury & death	Unintentional Injuries Age-Adjusted Mortality (2017 Top 5 Causes)	2017 Geocoded Michigan Death Certificate Registry. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Chronic Lower Respiratory Disease Age-Adjusted Mortality (2017 Top 5 Causes)	2017 Geocoded Michigan Death Certificate Registry. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Stroke Age-Adjusted Mortality (2017 Top 5 Causes)	2017 Geocoded Michigan Death Certificate Registry. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
Maternal & Child Health	Infant Mortality	2010-2016 CDC WONDER mortality data
	Birth Weight - Low < 2500 Grams	2010-2016 National Center for Health Statistics - Natality Files
	Birth Rate for Teenagers per 1000 Population (Ages 15-19 Years)	2010-2016 National Center for Health Statistics - Natality Files
	Newborns and Neonates (Less than 7 days) Discharge Rate	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Females with Deliveries Discharge Rate	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Child Mortality	2013-2016 CDC WONDER mortality data
	Infant Mortality Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Births to Mothers Who Smoked During Pregnancy - New Birth Certificate	2016 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics
	Births to Mothers with No Diploma or GED	2016 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics
	Births, Preterm < 37 Weeks	2016 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics
	Births to Teens Under Age 20	2016 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics
	Births to Mothers with Late or No Prenatal Care (New Birth Certificate)	2016 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics
	Births Paid by Medicaid	2016 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics
	Births to Unmarried Women	2016 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics
	Birth Weight - Very Low < 1500 Grams	1990-2017 Geocoded Michigan Birth Certificate Registries. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Births to Mothers Who Are Foreign Born	2017 Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics

Category	Public health indicator	Source
Mental health	Alzheimer's Disease/Dementia - (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Depression (Percent of Fee-for-Service Medicare 65+)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Schizophrenia/Other Psychotic Disorders (Percent of Fee-for-Service Medicare 65+)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Drug Abuse/Substance Abuse (Percent of Fee-for-Service Medicare 65+)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Depression (Medicare Less than 65)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Drug Abuse/Substance Abuse (Medicare Less than 65)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Schizophrenia/Other Psychotic Disorders (Medicare Less than 65)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Suicide Rate	1999-2017 Centers for Disease Control and Prevention, National Center for Health Statistics; Underlying Cause of Death
	Affective Mood Disorders Discharge Rate	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Schizophrenia, Schizotypal & Delusional Disorders Discharge Rate	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Drug Addiction Treatment, Percent Needing but Not Receiving	2014 Substance Abuse and Mental Health Services Administration
	Poor Mental Health on at Least 14 Days in the Past Month	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Depression	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Alzheimer's Disease Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Suicide/Intentional Self-Harm Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Chronic Lower Respiratory Disease Death Rate (2015-2017)	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Poor Mental Health Days	2016 Behavioral Risk Factor Surveillance System
Population	Disconnected Youth Age 16-24	2010-2014 Measure of America
	Some College	2012-2016 American Community Survey, 5-year estimates
	Children in Single-Parent Households	2012-2016 American Community Survey, 5-year estimates
	Income Inequality	2012-2016 American Community Survey, 5-year estimates
	Poverty: Individuals Living Below Poverty Level in Past 12 Months	2013-2017 American Community Survey 5-Year Estimates (Table: DP03)
	Disabled Persons Under Age 65	2013-2017 U.S. Census Bureau, American Community Survey (ACS) and Puerto Rico Community Survey (PRCS), 5-Year Estimates

Category	Public health indicator	Source
Population	High School Graduation	2014-2015 EDFacts
	Disability	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Poverty: Children Eligible for Free Lunch	2015-2016 National Center for Education Statistics
	Unemployment Rate 16+	2016, Local Area Unemployment Statistics program of the Bureau of Labor Statistics
	Poverty: Students Eligible for Free or Reduced Priced Lunch	2016 Center for Educational Performance Information
	Poverty: Children in Poverty	2016 Small Area Income and Poverty Estimates
	Income - Median Household Income	2016 Small Area Income and Poverty Estimates
	High School Dropouts	2017 Center for Educational Performance Information
	Poverty: All People in Poverty	2017 Census Bureau, Small Area Income and Poverty Estimates
	Children with a Substantiated Incident of Child Abuse and/or Neglect	2017 Michigan Department of Health and Human Services, Children's Protective Services
Preventable Hospitalizations	Preventable Hospital Stays - Discharge Rate per 1000 Medicare Enrollees with Ambulatory Care Sensitive Hospitalizations	2015 Dartmouth Atlas of Health Care
	ALOS - Average Length of Stay for Ambulatory Care Sensitive Hospitalizations	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Ambulatory Care Sensitive Hospitalizations (Percent of All Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Ambulatory Care Sensitive Hospitalizations (Rate per 10,000 Population)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Congestive Heart Failure (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Chronic Obstructive Pulmonary Disease (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Bacterial Pneumonia (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Diabetes Diagnoses, Age 20+ (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Cellulitis (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Grand Mal & Other Epileptic Conditions (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Asthma (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Dehydration (Rate of Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services

Category	Public health indicator	Source
Preventable Hospitalizations	Convulsions (Age < 18 Years) (Rate of Pediatric Ambulatory Care Sensitive Hospitalizations)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Other Ambulatory Care Sensitive Conditions (Rate)	2016 Michigan Resident Inpatient Files created by the Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
Prevention	Diabetic Screening - Medicare	2014 Dartmouth Atlas of Health Care
	Mammography Screening - Medicare	2014 Dartmouth Atlas of Health Care
	Breast Cancer Screening Among Women 40 Years and Older	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Cervical Cancer Screening Among Women 18 Years and Older	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Prostate Cancer Screening Among Men 50 Years and Older	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Colorectal Cancer Screening Among Adults 50 Years and Older	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	No Dental Visits in Past Year- Proportion of Adults	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Vaccination - Adult Immunizations Age 65 Years and Older	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	HIV Testing Among Adults Aged 18-64 Years	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Vaccination - Fully Immunized Toddlers, Age 2	2017 Michigan Department of Health and Human Services, Division of Immunization, Michigan Care Improvement Registry
	Blood Lead Level - Testing of Children Ages 1-2	2017 Michigan Department of Health and Human Services, Childhood Lead Poisoning Prevention Program
	Blood Lead Level - Testing of Children Ages 1-2 on Medicaid	2017 Michigan Department of Health and Human Services, Childhood Lead Poisoning Prevention Program
	Vaccination - Percent of Children Who Have One or More Waivers (Kindergarten and Grade 7)	2018 Michigan Care Improvement Registry
Cancers	Cancer Prevalence (Percent of Fee-for-Service Medicare)	2007-2017 CMS.gov Chronic conditions 2007-2017
	Prostate Gland (Invasive Cancer Incidence)	2011-2015 Michigan Resident Cancer Incidence File; Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Lung and Bronchus (Invasive Cancer Incidence)	2011-2015 Michigan Resident Cancer Incidence File; Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Breast (Invasive Cancer Incidence)	2011-2015 Michigan Resident Cancer Incidence File; Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Colon and Rectum (Invasive Cancer Incidence)	2011-2015 Michigan Resident Cancer Incidence File; Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Other Cancers (Invasive Cancer Incidence)	2011-2015 Michigan Resident Cancer Incidence File; Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services

Category	Public health indicator	Source
Cancers	Cancers, All - Incidence	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Breast Cancer Incidence	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Colon Cancer Incidence	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Lung Cancer Incidence	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Prostate Cancer Incidence	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Breast Cancer Incidence (Medicare)	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Colon Cancer Incidence (Medicare)	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Lung Cancer Incidence (Medicare)	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Cancer (Malignant Neoplasms) Discharge Rate	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Neoplasms, Benign and Unspecified Nature Discharge Rate	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Cancer (Percent of All Adults)	2014-2016 Michigan BRFS Regional; Local Health Department Estimates
	Cancers, All - Death Rate	1999-2016 CDC WONDER Online Database; Compressed Mortality File 1999-2016
	Cancer Death Rate	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Cancer Age-Adjusted Mortality (2017 Top 5 Causes)	2017 Geocoded Michigan Death Certificate Registry. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services
Infectious Conditions/Diseases	Septicemia (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Pneumonia (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	Infectious and Parasitic Diseases Except Septicemia (Hospitalization Discharge Rate)	2011-2016 Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health & Human Services
	HIV Prevalence Age 13+	2015 National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
	Chlamydia Incidence	2015 National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
	AIDS Death Rate	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Pneumonia & Influenza Death Rate	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	Septicemia Death Rate	2015-2017 Geocoded Michigan Death Certificate Registries; Vital Records & Health Statistics, Michigan Department of Health & Human Services
	HIV - New Diagnoses Age 13+	2016 Centers for Disease Control and Prevention
	STD Incidence for Youth, Ages 15-19	2015 National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Note: Duplicates of organization name represent distinct individuals.

FOCUS GROUP Participant organization name	Public health	Medically underserved	Low-income	Chronic disease needs	Minority
ACCESS		X	X	X	X
American Heart Association		X	X	X	X
Arab American and Chaldean Council (ACC)		X	X	X	X
Assistance League of Southeastern Michigan		X	X	X	X
Beaumont Health		X	X	X	X
Beaumont Health		X	X	X	X
Beaumont Child and Adolescent Health Center		X	X	X	X
Beaumont Child and Adolescent Health Center	X	X	X	X	X
Beaumont Health Family Medicine		X	X	X	X
Beaumont Health Family Medicine		X	X	X	X
Beaumont Health		X	X	X	X
Beaumont Health		X	X	X	X
Beaumont Health		X	X	X	X
Beaumont Health		X	X	X	X
Beaumont Health and Fitness Center, St. Clair Shores				X	
Beaumont, Dearborn		X		X	
Beaumont, Grosse Pointe		X	X	X	X
Beaumont, Wayne		X	X	X	X
Beaumont Health, Generations Senior Program		X	X	X	X
Botsford Commons, A Beaumont Community		X	X	X	X
CARE House of Oakland County				X	
CARE of S.E. MI		X	X	X	X
City of Auburn Hills			X	X	
City of Farmington Hills		X	X	X	X
City of Farmington Hills Senior Services		X	X	X	X
City of Harper Woods			X		X
City of Sterling Heights Senior Center			X	X	X
City of Trenton			X	X	X
City of Trenton		X	X	X	X
City of Wayne		X	X	X	X
City of Westland			X		X
City of Westland, Community Development		X	X		X

Note: Duplicates of organization name represent distinct individuals.

FOCUS GROUP Participant organization name	Public health	Medically underserved	Low-income	Chronic disease needs	Minority
Clawson Senior Center		X	X	X	X
Commission of Aging		X	X	X	X
Community Foundation for Southeast Michigan		X			
Community Foundation for Southeast Michigan		X	X		X
Community Living Services		X	X	X	X
Covenant Community Care		X	X	X	X
Dearborn Public Schools			X		X
Downriver Community Conference			X		
Downriver Linked Greenways			X		X
Eldercare at Coach Stop Manor		X	X	X	X
Farmington Farmers' Market		X	X	X	X
Farmington Hills Health Commission		X	X	X	X
Farmington Hills Health Commission		X	X	X	X
Farmington Hills Nature Center			X		X
Ferndale Pride		X	X	X	X
Fish & Loaves/ ChristNetShelter/ St. Paul United Church/ Taylor Ministerium		X	X	X	X
Gleaners Community Food Bank of Southeast Michigan		X	X	X	X
Gethsemane Baptist Church		X	X	X	X
Grosse Pointe Chamber of Commerce					X
Grosse Pointe News					
Grosse Pointe Public School System			X		X
Harper Woods Outreach Coalition			X		X
Healthy Dearborn			X		X
Henry Ford Village					X
Hope Clinic	X	X	X	X	X
Light House Home Mission			X		
Macomb County EMS Medical Control Authority		X	X	X	X
Metro Health Foundation		X	X	X	X
Metro Solutions, Inc.		X	X		X
Michigan House of Representatives		X	X	X	X
National Kidney Foundation of Michigan		X	X	X	X

Note: Duplicates of organization name represent distinct individuals.

FOCUS GROUP Participant organization name	Public health	Medically underserved	Low-income	Chronic disease needs	Minority
National Kidney Foundation of Michigan		X	X	X	X
Neighborhood Club			X		X
Neighborhood House		X	X	X	X
Oak Park Recreation/Farmers Market			X	X	X
Oakland Family Services		X	X	X	X
Oakland Schools		X	X	X	X
Older Persons' Commission				X	
Rebuilding Together Southeast Michigan			X		
Regency Healthcare a Villa Center		X	X	X	X
SEMCA Michigan Works!			X		
Southgate Michigan Works / Downriver Community Conference			X		
St Paul Lutheran Church		X	X	X	X
St. Thomas Episcopal Church		X	X	X	
St. Thomas Episcopal Church		X	X	X	X
Taylor High School		X	X	X	X
The Guidance Center		X	X	X	X
The Helm at the Boll Life Center		X	X	X	X
The Salvation Army - Wayne/Westland		X	X	X	X
Troy Community Coalition					
Troy Police Department		X	X	X	X
Troy School District			X		X
Wayne County Parks			X		X
Wayne County Parks			X	X	X
Wayne County Public Health	X				
Wayne Metropolitan Community Action Agency			X		
Wayne-Westland Community Schools		X	X	X	X
Wayne-Westland Community Schools		X	X	X	X
Western Wayne Family Health Centers		X	X	X	X
Yemen American Benevolent Association		X	X	X	X

Note: Duplicates of organization name represent distinct individuals.

INTERVIEW Participant organization name	Public health	Medically underserved	Low income	Chronic disease needs	Minority	INTERVIEW Participant organization name	Public health	Medically underserved	Low income	Chronic disease needs	Minority
ACCESS		X	X	X	X	Covenant Community Care		X	X	X	X
American Cancer Society				X	X	Detroit Health Department	X	X	X	X	X
American Heart Association of SE Michigan				X	X	District 15			X		X
Beaumont Dearborn and Farmington Hills		X	X	X	X	Farmington/Farmington Hills Commission on Community.Health			X		X
Beaumont Health ER Medicine		X	X	X	X	Greater Detroit Area Health Council		X	X	X	X
Beaumont Grosse Pointe and Troy		X	X	X	X	Hegira Health		X	X	X	X
Beaumont Health		X	X	X	X	Islamic Center of America					X
Beaumont Health		X	X	X	X	Macomb County Health Department	X	X	X	X	X
Beaumont Health		X	X	X	X	National Kidney Foundation of Michigan		X	X	X	X
Beaumont Health		X	X	X	X	Oakland County Health Division	X	X	X	X	X
Beaumont Health		X	X	X	X	Oakland University William Beaumont School of Medicine		X	X	X	X
Beaumont Health		X	X	X	X	Oakland University		X	X	X	X
Beaumont Health		X	X	X	X	NAMI - Metro				X	
Beaumont Health		X	X	X	X	Southwest Solutions		X	X		X
Beaumont Health		X	X	X	X	Starfish Family Services		X	X		X
Beaumont Health		X	X	X	X	Universal Health Services				X	
Beaumont Health		X	X	X	X	Wayne County Mental Health Authority		X	X	X	X
Beaumont, Royal Oak		X	X	X	X	Wayne County Department of Health	X	X	X	X	X
Beaumont Taylor, Trenton and Wayne		X	X	X	X	Wayne State University		X	X	X	X
City of Dearborn		X	X	X	X	Western Wayne Family Health Centers		X	X	X	X

Focus group summaries

Beaumont, Dearborn

The Beaumont, Dearborn focus group took place on March 14, 2019 at the Dearborn Administrative Center and included 11 participants. The group included health agency administrators, local schools, and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved and populations with chronic diseases.

Dearborn was described as a blended community that's cohesive and close knit, and participants described an increasing array of changes in the recent three to five years. The Detroit metropolitan area is home to the largest concentration of Middle Eastern residents in the country, and Dearborn has the highest percentage of Arab residents. Participants discussed the most recent influx of Syrians, Yemeni and Palestinians as immigrants, not refugees, so they had different needs and access to health care insurance options. Participants said this unique diversity created a special bond. Neighborhood residents looked out for each other; there were limited bus routes, so parents walked their kids to school; and city workers, and first responders lived in the communities they served. A strong school system attracted families and there were three colleges in the community. Well-paying jobs attracted residents to the community, which had increased home values and created a shortage of affordable housing. There was construction of new housing, but mostly in higher price ranges that were out of range for first time home buyers. Participants mentioned that the community had fewer renters than previous years because investors were buying and flipping houses, which contributed to the shortage of affordable housing.

Immigrants had unique challenges because most did not qualify for health services, and the aging population had religious constraints and cultural family dynamics that further complicated the shortage of senior housing and services. Participants discussed the Middle Eastern population as aging and mirrored the needs of other communities in the country for assisted needs, housing and social connections; but there were also unique cultural considerations, social barriers and stigmas to nursing homes and senior living facilities. Specifically, parents stayed in family homes and were cared for their children rather than moving into group housing, and some activities needed to be separated by gender. Focus group participants shared that often family members lacked resources to care for seniors at home during work hours and to maintain social relationships that supported staying healthy and aging well.

The discussion of health needs and barriers in the community centered on mental health and access to health care, especially for the vulnerable youth and senior populations. Participants discussed how these are linked to chronic diseases like diabetes, obesity and heart disease.

Mental health

Focus group participants consistently selected mental health as a top need in the community. There was a shortage of mental health beds and inpatient psychiatric services, which they hoped would improve as Beaumont Health opened a new facility. The community had special needs around PTSD for veterans, victims of abuse and torture victims among the immigrant population. Participants stated that mental health issues were especially acute for the youth population

who needed more education in schools around services, childhood trauma, domestic violence and privacy and confidentiality to access services. Mental health issues were linked to substance abuse and addiction challenges in the community. Stigma around mental health diagnoses caused fear of people knowing that anybody in the family had problems, so many didn't seek services. Similar stigma existed around substance abuse problems, and participants shared there was a high need around education about the risks of hookah smoking and opioids, especially among the youth.

Access to care

Primary care, physicians and pharmacies were plentiful in the Dearborn area, but access to care was limited by lack of health coverage and high costs, and residents did not understand how to navigate the health system and coordinate care. Many immigrants did not have access to health insurance or transportation and were further impeded by language issues and the lack of culturally appropriate providers. Participants shared there were seniors and children in need of healthy foods, social engagement and preventive services. Transportation was often a barrier because bus routes were extremely limited, so those without access to a car were not able to access health services and healthy food options or go to work easily. Increased health education would also increase understanding of nutrition, decrease stigma of accessing services and talking to doctors and using preventive services. ■

Beaumont, Farmington Hills

The Beaumont, Farmington Hills focus group took place on March 12, 2019 at the at the William Costick Activities Center and included 14 participants. The group included health agency administrators, senior community organizers and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved and populations with chronic diseases.

Farmington Hills was described as a safe community with older homes and plenty of green space. Seniors in the community were aging in place, supported by a variety of community programs. Focus group participants said the population was increasingly more diverse in many ways. Younger families were moving into the area, but most houses were older and needed renovations. More than a hundred languages were spoken in the schools, and more than a quarter of the entering students did not speak English.

The Troy area was described as industrial with many businesses, Livonia was characterized by smaller homes and good schools, Southfield had low-income residents, and Plymouth and Northville were described as upscale and growing areas. Farmington Hills community programming, especially with seniors, was described as phenomenal with over 300 dedicated volunteers who provided support for seniors and special services.

The focus group discussions focused on mental health, health education and senior issues as the top intertwined barriers to better health in the community.

Mental health and access to care

The focus group was concerned about the availability of psychiatrists as the current providers neared retirement age and the impact of Beaumont's planned move of services to Dearborn. They shared that inpatient services were already lacking, and there was concern about stress to seniors and caregivers when services were moved even farther away. Services for the senior population were frequently mentioned as a top health need as well as support for their caregivers. Participants shared the belief that mental health needs were connected to substance abuse, crime, suicide and dementia, and the community needed services for involuntary psych admissions. First responders needed resources and education to address mental health needs. There was concern about the impending legalization of marijuana and the impact it would have on children.

Education and access to services

Participants believed that increased education correlates to making better health choices, and the lack of health education was a barrier on multiple fronts. Uninsured and underinsured residents were using the Emergency Departments for non-urgent care, and many did not have primary care physicians or use preventive services. Residents struggled with hunger, lack of healthy foods and poor nutritional choices, especially among the vulnerable youth and senior populations. Language barriers and fear also prevented non-documented residents from seeking services, complicated by different cultural perceptions of health and mistrust. ■

Beaumont, Grosse Pointe

The Beaumont, Grosse Pointe focus group took place on March 12, 2019 at the Neighborhood Club Rec & Wellness Center and included 14 participants. The group included health agency administrators, medical professionals, and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved and populations with chronic diseases.

Focus group participants indicated the area had huge disparities across five distinct communities and over 14 business districts. The Grosse Pointe community was described as a unique, tight knit community near the lake, growing in diversity, with people discovering the community and that despite the perception, "not all homes are mansions." Participants stated that the area is a great place to raise a family, with great schools, parks and services all located near, but not in, the city. In this area there were few multi-generational families but still an aging community. The area of Harper Woods was diverse with more investor owned rental homes and younger commuter families moving into the area. The area east of Detroit was a community described by participants as having all rental homes, lots of students, limited green space and a questionable school system. Participants indicated significant income disparities varying block to block. In some areas, community members worked multiple jobs just to remain working class and may have to choose between paying for food and medications. Residents who lived here tended to commute into the city of Detroit, or in some cases Grosse Pointe, despite the limited public transportation routes. Participants mentioned there were needs in

east Detroit, but it was more difficult to get funding as resources were focused on downtown Detroit.

Mental health and substance abuse

The participants discussed many health related issues and needs in the community revolving mainly around mental health, substance abuse and prevention services for teens. Mental health resources tended to be scarce, particularly after crises; there was low awareness that such therapy and counseling services existed. A lack of provider acceptance of Medicaid was a growing concern in this area. Contributing factors for a large substance abuse problem facing the community were believed to be the shortage of services and awareness; cocaine, heroin, opioid addiction and alcohol were most prevalent. The elderly and teen populations faced mental health and substance abuse issues in part due to isolation and loneliness; the effects were compounded by technology, a lack of safe spaces for people to gather, limited public transportation and a rise in crime and violence.

Access to care

There were traditional factors for the health issues and needs of this community as well as cultural factors, including a mistrust of the health care system. The focus group mentioned that immigrants feared they would be turned in to the government if they were to seek any services. The growing diversity of the population meant language barriers presented greater difficulties to seeking preventive services, particularly in the teen population. The disparity created a general lack of knowledge of what health care services were available. The gap to meet the needs of this community was widened by a shortage of primary care doctors and advocates and limited free or low-cost options provided by the community. Focus group participants indicated that cultural and generational mistrust of the health care system contributed to an increase in chronic health conditions such as diabetes, heart disease, and high blood pressure (hypertension). ■

Beaumont, Royal Oak

The Beaumont, Royal Oak focus group took place on March 12, 2019 at the Beaumont Health and Wellness Center and included eight participants. The group included health and social service agency administrators, health care professionals, advocacy groups and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved, and populations with chronic diseases.

The focus group participants described the community served by Beaumont, Royal Oak as very diverse overall but with clear delineations between the towns and communities where the diverse populations live. The participants shared that the town of Oak Park had a large African American population as well as a large Orthodox Jewish population. The community that includes the town of Ferndale had a sizable LGBTQ population and included a higher proportion of people who are transgender or intersex. The Troy area had a larger population of Asian Indian and Chaldean people as well a large immigrant community. In addition, there was economic disparity in the Royal Oak community. The participants described the towns of Bloomfield Hills and Birmingham as very well-known wealthy communities which border communities primarily occupied by the working poor and people who couldn't afford their medications. In some cases, this income disparity was described as having "mansions just across the street" from less affluent neighborhoods. The focus group

emphasized that 80-85% of students in some school districts were in the free/reduced lunch program. The large number of seniors in the community was also noted by the participants.

The community was described as vibrant and engaged via philanthropy and volunteerism. Residents were very active and used the numerous trails, bike paths and outdoor activities available in the area. The focus group stated that Oakland County had high literacy rates and a strong safety net of public/private social services which operated collaboratively. The participants discussed the migration of Detroit city residents who had moved into the community and the large number of children who attended school in the area but did not live in the community due to school choice. It was noted that there was a resurgence of jobs and real estate development in the area, but the infrastructure to support this growth has not kept up.

The discussion of health needs and barriers in the community centered on access to healthy foods and obesity, mental health and addiction, as well as transportation and cost of health care services.

Access to healthy foods and obesity

The focus group participants expressed concern about the lack of healthy foods available and the food choices made by community members. They were especially concerned about access to healthy food for the elderly and children. Grocery stores did not stock healthy choices, and schools did not provide healthy food. They discussed the cost of healthy food and limited choices available in low-income neighborhoods. It was noted that assistance programs did not have enough funding to provide children and families with healthy food choices. The free lunch program in school lacked nutritional value despite messaging in schools about healthy choices. The participants discussed the link between lack of healthy food and childhood obesity, which they indicated was on the rise in their community. They stated a need for childhood obesity programs.

Mental health and addiction

The group were concerned about childhood adverse events and their impact on mental health needs in the community. They stated that issues of childhood trauma and adverse events were prevalent everywhere in the community. Participants discussed a need for trauma informed response within the community and within the schools, as well as mental health programs for at-risk youth. There was concern about the prevalence of mental health issues among the elderly and the LGBTQ populations. There was a stigma around mental health throughout the community; anxiety and depression were more openly discussed, but there was still a stigma around seeking medical care for mental health services. The participants indicated a need for mental health assessments as part of preventative medical visits. However, the group discussed concern about the community's capacity (providers/services) to address mental health if stigma were decreased and people began seeking mental health services.

The focus group also discussed substance abuse and addiction in the community. Cocaine and alcohol were the most prevalent issues, but opioids were an issue as well. The group discussed opioid addiction was a prescribing issue with a different addict profile, thus needing different interventions. Stigma was also an issue that impacted community residents who may have sought care for addiction due to the perception of "addicts." The participants stated a need for addiction services, including detox beds and community support services once discharged from an inpatient addiction treatment program. The group felt the medical community didn't

have a meaningful response to the opioid issue or support for long term issues it presented. There were some, but not enough, programs to address addiction and recovery; care was fragmented and uncoordinated. Participants were concerned about elderly people who may have substance abuse issues and the impact of vaping and marijuana use by children.

Transportation and cost of care

Availability of transportation was a barrier to achieving improved health status in this community. There was not a comprehensive, reliable, public transportation system. Cost of health services and insurance were barriers to receiving health care. Transportation for the elderly was also an issue; senior centers provided transportation, but lack of flexibility was a problem.

The focus group discussed cost of care as a barrier to improved health status in the community. Cost of health care services and the cost of insurance was a barrier to receiving health care services. Out of pocket cost of care was certainly a barrier for those without insurance, but for the community members who could afford health care insurance, high deductibles and copays prevented them from seeking care. The cost to providers caring for Medicaid patients was also a barrier, as many providers would limit the number of Medicaid patients they accepted due to unfavorable rates. Services such as behavioral health and prescriptions copays were unaffordable even to those with insurance, including those with Medicare coverage. ■

Beaumont, Taylor

The Beaumont, Taylor focus group included eight participants. The group included health agency administrators, medical professionals and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved and populations with chronic diseases.

Focus group participants described the Taylor community as a socioeconomically diverse, down-to-earth, "meat and potatoes" kind of place with a mix of both rural and urban cities "downriver" from Detroit. This area had a vibrant and diverse tax base and had transcended its reputation of working class "Taylor Tucky." Not only was the area socioeconomically diverse, with newer condos and businesses in Taylor in contrast to the extreme poverty in areas such as River Rouge and Ecorse, it was also ethnically diverse. The Lincoln Park area was increasing in Mexican and Hispanic culture, as well as those of African American and Middle Eastern decent. Taylor was the largest city downriver, but also had the highest concentration of low-income housing east of the Mississippi with long wait lists. Families sought the better school district of Taylor as compared to southwest Detroit.

Participants consistently identified stigma and "demonization" of poor people, along with the stress of maintaining basic needs, as the intertwined top barriers to better health in the community. It was stated these resulted in high rates of mental health and opioid and alcohol abuse. They described a shortage of mental health providers, made worse by fear, mistrust and confusion of navigating the health care system. Participants indicated that many residents would delay care until health crisis before seeking

care for chronic conditions. Other barriers to health included hunger and lack of access to nutritious food with a high number of fast food restaurants or gas stations as a source of affordable food. The discussion of top health needs in the community centered around opioid and substance abuse, the reach and scope of mental health resources and lack of coordination and focus on preventive care services as contributors to chronic disease.

Mental health

The participants discussed mental health resources in the community, noting they were limited and inconsistent, regardless of insurance status, partly due to the state closure of the psychiatric hospital. Available services focused on counseling and preventive services, leaving a gap in moderate to severe mental health services. Skilled nursing and long term care facilities were the only available resources for adults recovering from mental health acute events or substance abuse detoxification, yet participants indicated this was not the appropriate site for that type of services. Participants also indicated a lack of Hispanic cultural sensitivity and awareness by local mental health providers which led to significant outmigration of care to Detroit, or Troy and Bloomfield Hills if residents had means. Lack of mental health services for adolescents was also noted, with higher rates of anxiety and home instability for those aged 14-18 years. Finally, the group stated there was an increased demand for mental health services and increased difficulty finding providers with the proper mental health credentials.

Lack of preventive care

The community faced a variety of access to care issues which may have contributed to the high prevalence of chronic illness. Physician shortages, lack of free and low cost primary care options, lack of Spanish speaking providers and transportation issues were challenges for the community. The group discussed a variety of health issues faced by the community including asthma, diabetes, hypertension and other chronic illnesses made worse by the lack of knowledge and difficulty of navigating the health system. The group indicated the low health literacy, education and awareness of the benefit of early intervention and preventive wellness screenings. The group believed that for some Hispanic and African American residents there was a mistrust or sense of unfamiliarity with local providers which created a barrier to seek treatment. Lack of reliable public transportation and bus line "opts out" of routes or locations prohibited residents from receiving preventive care. Participants believed there to be a shortage of primary care professionals, specifically identifying dental services. ■

Beaumont, Trenton

The Beaumont, Trenton focus group took place on March 13, 2019 at the Trenton City Hall Council Chambers and included 12 participants. The group included an elected official, local churches, health and social service agency administrators and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved and populations with chronic diseases.

The focus group participants described the community served by Beaumont, Trenton as a tight-knit community that is part of the "outer ring" suburbs of Detroit. The community was very established and contained older homes that were affordable compared to other Detroit suburbs. The community was primarily working class with people that both lived and worked in the

community. The population was growing older, with younger people having moved out of the community and the number of school-aged children decreasing. Many of the elderly population had aged in place or moved into the increasing number of assisted living facilities. The community was mainly white, multi-ethnic but primarily Christian with a strong faith community. Ethnic diversity existed among smaller neighborhoods, but it was noted that there was a larger Hispanic population in Lincoln Park and Islamic population in Southland.

This area is part of a collection of suburban cities and townships in Wayne County south of Detroit commonly referred to as "Downriver." In this area, industrial (mostly steel) industries had moved out and there was an effort to revitalize the area, especially downtown Trenton. Despite the overall aging trend of the community, some younger people moved back to the area with their families attracted to the affordable housing, easy access to downtown Detroit, a waterfront and proximity to a large nature preserve. The Downriver communities were very cohesive and worked collaboratively to address the issues they faced. The community still faced challenges including generational poverty, lack of grocery stores, lack of walkability, lack of public transportation and trouble attracting business that would continue to draw a younger population to the area.

The discussion of health needs and barriers in the community centered around social isolation and mental health, obesity and health eating/activity, substance abuse, as well as access to care.

Social isolation and mental health

The focus group participants discussed social isolation and its impact on the mental health community members. They noted the growing proportion of elderly, many who were aging in place and living alone, which contributed to depression in the older population. They also discussed the limited amount of social activities for all ages (outside of those centered around local hockey leagues) contributing to social isolation within their community. The participants felt there was a lack of opportunities and places for social interaction, especially those that are accessible to community members without access to a vehicle. They noted a prevalence of depression and mental illness in their community.

Obesity and healthy eating/activity

Participants were concerned about the rate of obesity in their community. They noted the link between obesity and their aging population resulted in greater rates of chronic conditions such as diabetes and cardiovascular disease. They discussed the historical culture of the Downriver communities as not including healthy eating and choosing processed/unhealthy food over fruits or vegetables . Lack of grocery stores and the affordability of fast food in the community were contributing to the prevalence of obesity. The focus group also stated residents did not engage in regular physical activity which contributed to obesity and chronic conditions. Additionally, the area did not have the infrastructure to support safe, walkable communities.

Substance abuse

The focus group discussed the prevalence of substance abuse in the community. There were high smoking rates and alcohol abuse among the Downriver communities. Addiction to heroin and opioids were a problem in this community. Participants were concerned about prescription drug abuse among young people due to sports injuries and older people who may not be aware their medications contain opioids.

Access to care

The focus group participants identified insurance status and cost as a barrier to improving health status in the community. There were a number of uninsured people in the community but also a large number of underinsured people. Underinsured people, while having insurance coverage, still could not afford the copays or costly medications. Those with insurance coverage struggled with navigating the health care system and using preventive and/or primary care; they relied on the Emergency Department for convenience. ■

Beaumont, Troy

The Beaumont, Troy focus group took place on March 11, 2019 at the Beaumont Medical Park Outpatient Center and included 11 participants. The group included health and social service agency administrators, health care professionals, advocacy groups and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved and populations with chronic diseases.

Focus group participants described the community served by Beaumont, Troy as ethnically and linguistically diverse with a growing refugee and immigrant population. The second largest Arabic population outside of Dearborn resided in the area. The community housed a large student population due to the presence of four nearby universities, and seniors increasingly aged in place due to its walkability, thriving downtown and recreational trails.

The population was predominantly affluent, white collar and highly educated, but pockets of poverty were present. Participants described Auburn Hills as primarily a business community with disconnected residential pockets. Several company headquarters in the automotive, manufacturing, industrial, technology and research sectors resided in the area creating a surplus of high paying jobs. The shifting demographics in the community increased demand for translation, EMS and senior services.

The focus group discussion centered on access to care issues, chronic disease management, mental and behavioral health and environmental barriers to health.

Access to Care

Low-income and uninsured residents faced significant access to care issues. Participants discussed the lack of affordable dental and specialty care and felt that additional pediatric dentistry, ophthalmology, orthopedics and senior services were needed. Low-income residents often prioritized basic needs over health needs and faced financial barriers in paying for care, even with insurance. Providers increasingly limited the number of Medicaid patients they accepted, leaving this population with few options for care. Patients often used the emergency department as a lower cost alternative for primary care and chronic disease management. Participants shared that the community faced high rates of asthma, cardiovascular disease, diabetes and obesity. Physical access to health care providers was limited by the inadequate public transportation system and posed a barrier to properly managing chronic illnesses.

The refugee and immigrant population experienced additional challenges in seeking and receiving care due to cultural and language barriers and a general mistrust of providers. This population lacked the necessary knowledge to successfully navigate the complex health care and social services landscape. Participants suggested that poor coordination and communication

among providers posed a major barrier to health in the community and further impacted patient care.

Mental and behavioral health

Mental and behavioral health emerged as a major need in the community. Anxiety, depression and youth suicide was on the rise. The growing refugee and immigrant population struggled with trauma and PTSD and required specialized services to meet their needs. Stigma around mental health conditions, especially among the elderly, Asian, and Arabic populations, prevented people from seeking help for depression and other common conditions.

Social isolation among seniors and high rates of substance abuse (i.e., drugs, smoking, alcohol, opioids) further exacerbated the prevalence of mental health issues in the community. The legalization of recreational marijuana concerned participants who feared it might negatively impact youth and vulnerable groups in the population.

Focus group participants felt that mental health services were lacking and could not meet the growing demand. Increased access to inpatient and outpatient therapy, substance abuse counseling and psychiatric providers were needed, especially for low-income and uninsured residents.

Environmental barriers

Environmental conditions in the community posed an additional barrier to health. Issues around adequate and affordable housing abounded. Participants shared that the community lacked low-income and subsidized senior housing to meet residents' needs. Local rent prices had increased dramatically, making it cheaper to own a home rather than rent in some portions of the community. Low-income neighborhoods lacked the means to properly abate lead, mold and asbestos in older homes, creating inadequate living conditions that can lead to high rates of asthma and lead poisoning in children.

Hunger and limited access to healthy and nutritious food was prevalent among the low-income population. Local food pantries struggled to provide fresh foods due to inadequate storage infrastructure. Focus group participants discussed that even when fresh food was available, people often did not choose it or lacked the necessary knowledge to prepare it properly. ■

Beaumont, Wayne

The Beaumont, Wayne focus group took place on March 15, 2019 at the HYPE Western Wayne Recreation Center and included 23 participants. The group included health agency administrators, medical professionals, and representatives from various community organizations. Most of the participants worked with at-risk populations; the group at large represented low-income populations, minorities, the medically underserved and populations with chronic diseases.

Focus group participants described the Wayne community as a socioeconomically diverse, "tough and stubborn" blue collar community of Midwesterners who valued history and strong family values. They had seen an increase in ethnic and language diversity influenced mostly by Middle Eastern, West African and Albanian residents. Described as a "commuter city," many traveled into Wayne for work in primarily the auto, health and education industries, with an older community of seniors who chose to age in place. The community itself is home to beautiful parks and the Lower Rouge Parkway walking trail system. Surrounding the city of Wayne was a ring of older ranch style homes and many affordable starter homes.

However, pockets existed with high rental prices, which possibly contributed to the statistic that Wayne had the third highest rate of student homelessness. Referring back to the socioeconomic diversity, Canton had higher incomes while North Wayne had lower, and many community resources existed to help the lower income communities – free clinics, shelters, transportation, scholarships, camps – and free or reduced school lunch had risen from 15% to 68%.

Mental health and substance abuse

The participants discussed mental health resources in the community, noting a shortage of outpatient providers for screenings and evaluations. Anxiety, depression and bipolar disorders appeared as most prevalent. Participants believed these may be a leading factor in a large dependency on drugs and alcohol in the community, drugs such as opioids, heroine, marijuana, methamphetamine, fentanyl, acid and various forms of alcohol.

Isolation

Social and elderly isolation were becoming more prevalent due to a reliance on technology to communicate and connect, replacing human connection. The lack of public transportation and language barriers limited the possibility of human connection, particularly for the growing elderly community. In lower income North Wayne and Inkster, a lower level of education and literacy existed, due in part to the nonexistence of a school system in Inkster, for example. Single parent homes may not have had many options for their children to develop peer relationships, as there was a focus on work in order to provide the necessities.

Lack of prevention

The isolation due to lack of public transportation limited the ability for most residents to seek preventive care and education. There appeared to be a lack of such knowledge resources. Many of the existing nutritional and care habits had been passed down from the elderly generation without access to updated information. In combination with lower incomes, the same health care issues continued to repeat themselves. Growing language diversity compounded this issue. While there were free or reduced fee services, the lack of knowledge and accessibility to those resources continued to prevent residents from accessing them. As a result of these factors, residents were not able to afford or gain access to more nutritional food choices, instead opting for the easy and more affordable option of fast food. High health care costs and lack of knowledge prevented most residents from having access to preventive care; participants felt this lack of knowledge and access led to an increase in chronic health conditions including: chronic obstructive pulmonary disease, diabetes, congestive heart failure, obesity and cancer, among others. ■

Interview summary

As part of the CHNA process, Beaumont Health completed 40 key informant interviews with community members who represented public health, low-income populations, minorities, the medically underserved and populations with chronic diseases. Participants included public health and social service agency administrators, community leaders and key Beaumont Health leaders. For a list of participating organizations see ***Appendix D***.

Interviews completed by hospital market

Beaumont hospital market	Interviews completed
Dearborn	**26**
Farmington Hills	**18**
Grosse Point	**17**
Royal Oak	**21**
Taylor	**17**
Trenton	**14**
Troy	**19**
Wayne	**19**

Note: The same interview may have counted for multiple markets. Interviews completed are out of a total 40 interviews.

Interview themes by hospital market

Note: A value of X indicates that a theme was mentioned by at least one of the interviews for a market

Themes	Dearborn	Farmington Hills	Grosse Point	Royal Oak	Taylor	Trenton	Troy	Wayne	Total
Access to Care - Coordination of Care/Resources	X	X	X	X	X	X	X	X	8
Access to Care - Cost	X	X	X	X	X	X	X	X	8
Access to Care - Insurance Status	X	X	X	X	X	X	X	X	8
Access to Care - Medications	X	X	X	X	X	X	X	X	8
Access to Care - Mental Health	X	X	X	X	X	X	X	X	8
Access to Care - Other	X	X	X	X	X	X	X	X	8
Access to Care - Preventive Care	X	X	X	X	X	X	X	X	8
Access to Care - Primary Care	X	X	X	X	X	X	X	X	8
Access to Care - Specialty Care	X	X	X	X	X	X	X	X	8
Conditions/Diseases - Anemia	X	X	X	X	X	X	X	X	8
Conditions/Diseases - Cancer	X	X	X	X	X	X	X	X	8
Conditions/Diseases - Cardiovascular Disease	X	X	X	X	X	X	X	X	8
Conditions/Diseases - COPD	X	X	X	X	X	X	X	X	8
Conditions/Diseases - Diabetes	X	X	X	X	X	X	X	X	8
Conditions/Diseases - Obesity	X	X	X	X	X	X	X	X	8

Chart continued on next page.

Themes	Dearborn	Farmington Hills	Grosse Point	Royal Oak	Taylor	Trenton	Troy	Wayne	Total
Conditions/Diseases - Other	X	X	X	X	X	X	X	X	8
Cultural/Religious Barriers	X	X	X	X	X	X	X	X	8
Disability	X	X	X	X	X	X	X	X	8
Education	X	X	X	X	X	X	X	X	8
Employment	X	X	X	X	X	X	X	X	8
Environment - Food	X	X	X	X	X	X	X	X	8
Environment - Housing	X	X	X	X	X	X	X	X	8
Environment - Transportation	X	X	X	X	X	X	X	X	8
Health Behaviors	X	X	X	X	X	X	X	X	8
Health Education/Literacy	X	X	X	X	X	X	X	X	8
Homelessness	X	X	X	X	X	X	X	X	8
Immigrant/Undocumented/Refugee Status	X	X	X	X	X	X	X	X	8
Income	X	X	X	X	X	X	X	X	8
Language Barriers	X	X	X	X	X	X	X	X	8
Maternal and Child Health	X	X	X	X	X	X	X	X	8
Maternal and Child Health - Child Mortality	X	X	X	X	X	X	X	X	8
Maternal and Child Health - Infant Mortality	X	X	X	X	X	X	X	X	8
Mental Health	X	X	X	X	X	X	X	X	8
Other	X	X	X	X	X	X	X	X	8
Physical Activity	X	X	X	X	X	X	X	X	8
Substance Abuse - Alcohol	X	X	X	X	X	X	X	X	8
Substance Abuse - Other	X	X	X	X	X	X	X	X	8
Substance Abuse - Smoking	X	X	X	X	X	X	X	X	8
Trust in Providers	X	X	X	X	X	X	X	X	8
Access to Care - Dental Care	X	X	X	X	X		X	X	7
Environment - Violence	X	X	X	X	X		X	X	7
Health Status	X	X	X	X	X	X		X	7
Conditions/Diseases - Sexually Transmitted Diseases	X	X	X	X	X		X		6
Environment - Air Quality	X	X	X	X	X			X	6
Access to Care - Preventable Hospitalizations	X	X	X	X	X				5
Maternal and Child Health - Teen Pregnancy	X	X	X	X	X				5
Conditions/Diseases - Asthma			X				X	X	3
Policy and Government	X			X			X		3
Environment - Lead			X				X		2
Conditions/Diseases - Cerebrovascular Disease			X						X
Conditions/Diseases - Chronic Lower Respiratory Disease	X								X
Social Isolation							X		X

Note: A value of X indicates that a theme was mentioned by at least one of the interviews for a market

Beaumont | Beaumont Health CHNA survey

Overview

Beaumont Health is conducting a Community Health Needs Assessment (CHNA) survey to better understand the health concerns and needs in the community. The information obtained from the CHNA will be used in the development of an action plan to improve the health of local community members in Macomb, Oakland, Wayne counties where Beaumont Health has a presence.

Your responses to the survey are optional and anonymous. Any information collected will be reported in summary only.

The survey is open until March 31, 2019.

1. What are the biggest health issues or concerns in your community? (Check all that apply)

- [ ] Asthma/lung disease
- [ ] Cancer
- [ ] Diabetes
- [ ] HIV/AIDS
- [ ] Heart Disease
- [ ] Mental Health/depression/suicide
- [ ] Obesity
- [ ] Substance Abuse
- [ ] Stroke
- [ ] I don't know
- [ ] Other (please specify)

2. What keeps people in your community from seeking medical treatment? (Check all that apply)

- [ ] Lack of insurance
- [ ] Unable to pay co-pays
- [ ] Health services too far away
- [ ] Cultural or religious beliefs
- [ ] Fear (not ready to face health problem)
- [ ] Don't understand the need to see doctor
- [ ] Transportation problems
- [ ] Child Care problems
- [ ] No appointments available
- [ ] Too long of a wait at the doctor's office
- [ ] No access to primary care physicians/doctors
- [ ] Language barrier/do not speak my language
- [ ] Don't know how to find doctors
- [ ] None/no barriers
- [ ] I don't know
- [ ] Other (please specify)

*** 3. When you imagine a strong, vibrant, healthy community, what are the most important features to you? (Please choose up to 5)**

- [ ] Public safety
- [ ] Health care services
- [ ] Mental health services
- [ ] Clean environment
- [ ] Good childcare
- [ ] Affordable housing
- [ ] Economic opportunities
- [ ] Livable wages
- [ ] Drug & alcohol free communities
- [ ] Other (please specify)
- [ ] Diverse population
- [ ] Recreation resources, like parks and playgrounds
- [ ] Youth services
- [ ] Good schools
- [ ] Walkable, bike friendly communities
- [ ] Access to healthy food choices
- [ ] Sense of community
- [ ] Senior services
- [ ] Access to public transportation

4. What health screenings or education/information services are needed in your community? (Check all that apply)

- [ ] Cancer
- [ ] Cholesterol
- [ ] Blood pressure
- [ ] Heart disease
- [ ] Diabetes
- [ ] Dental screenings
- [ ] Disease outbreaks
- [ ] Substance abuse
- [ ] Nutrition
- [ ] Exercise/physical activity
- [ ] Emergency preparedness
- [ ] Eating disorders
- [ ] Falls prevention
- [ ] HIV/sexually transmitted diseases
- [ ] Mental health
- [ ] Vaccination/immunizations
- [ ] Prenatal care
- [ ] Other (please specify)

*** 5. If you or someone in your family were ill and required medical care, where would you go? (Check one)**

- [ ] Doctor's office
- [ ] Clinic
- [ ] Hospital emergency department
- [ ] Walk-in/urgent care center
- [ ] Health department
- [ ] Would not seek care
- [ ] Other (please specify)

6. Where do you and your family get most of your health information? (Check all that apply)

- [ ] Family or friends
- [ ] Newspaper/Magazines
- [ ] Library
- [ ] Internet
- [ ] Doctor/health professional
- [ ] Television
- [ ] Hospital
- [ ] Health department
- [ ] Radio
- [ ] Religious organization
- [ ] School
- [ ] Other (please specify)

7. Have you had a routine physical exam in the past two years?

- ○ Yes
- ○ No

8. In what ZIP code is your home located? (enter 5-digit ZIP code; for example, 48034 or 48221)

9. In what county do you currently live?

- ○ Macomb
- ○ Oakland
- ○ Wayne
- ○ Monroe
- ○ Other (please specify)

10. What category below includes your age?

- ◯ Under 18
- ◯ 18-29
- ◯ 30-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60-69
- ◯ 70-79
- ◯ 80-89
- ◯ 90+

11. Are you Hispanic, Latino/a or Spanish origin?

- ◯ Yes
- ◯ No

12. What is your race?

- ◯ African American/Black
- ◯ Caucasian/White
- ◯ Asian
- ◯ Hispanic
- ◯ American Indian/Alaska Native
- ◯ Native Hawaiian/Pacific Islander
- ◯ Other

13. What is your highest level of education?

- ◯ K-8
- ◯ Some high school
- ◯ High school graduate
- ◯ Technical School
- ◯ Some College
- ◯ College graduate
- ◯ Graduate School
- ◯ Doctorate

14. Do you have health insurance?

- ◯ Yes
- ◯ No
- ◯ No, but I did at an earlier time/previous job

We value your input and thank you for your responses.

Thank You

Beaumont Health 2019 Community Health Needs Assessment Prioritization Session Representatives • June 11, 2019

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Beaumont Community Resources
beaumont.org/community

ACCESS (Arab Community Center for Economic and Social Services)
accesscommunity.org

Area Agency on Aging 1-B – Helping Seniors and Their Families in Southeast Michigan
aaa1b.org

Common Ground – Community Mental Health Additional Resources
commongroundhelps.org/resources/additional-resources

Detroit Area Agency on Aging
detroitseniorsolution.org

The Information Center Where to Turn Guide: A resource for residents of Southeast Michigan
theinfocenter.info/WheretoTurnGuide

Macomb County Health Department – Health and Community Services
health.macombgov.org/Health-Services-HealthandSafety

Michigan Department of Health & Human Services
michigan.gov/mdhhs

National Association of Community Health Centers – Find a Community Health Center
nachc.org

Oakland Community Health Network – Community Resources
oaklandchn.org/index.php/access-and-elgibility/community-outreach

Oakland County Health Division
oakgov.com/health

The Senior Alliance – Information and Assistance
thesenioralliance.org/programs/information-assistance

United Way of Southeastern Michigan 2-1-1
unitedwaysem.org/2-1-1

Wayne County Department of Health, Veterans & Community Wellness No Wrong Door Resource Tool
waynecounty.com/departments/hhvs/wellness/provider-information.aspx

Wayne State University Physicians Group – Southeast Michigan Community Resources
wsupgdocs.org/services/WayneStateContentPage.aspx?nd=1819

Progress of Beaumont, Dearborn

2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the most impact in the community it serves, Beaumont, Dearborn established Healthy Dearborn, a multi-year initiative that expands community access to programs and services designed to encourage healthy eating and active living. Healthy Dearborn has strong support and partnerships including the City of Dearborn, Dearborn Public Schools and more than 400 individuals including nonprofit staff and community members. Coalition action teams include Healthy Foods, Healthy Environments for Physical Activity, Healthy at Work, Healthy Schools, Health Disparities/Health Equity, Inclusive Health Committee for People with Disabilities, and Healthy Communications. The progress and outcomes for Beaumont, Dearborn are described below:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular disease risk factors and prevent death from sudden cardiac arrest.

- In fiscal years 2017 and 2018, Beaumont, Dearborn provided heart health screening in the community to 4,609 individuals. The screenings consisted of blood pressure, cholesterol, glucose, stroke risk assessments and body mass index (BMI). All participants received counseling and information on their blood pressure, cholesterol and glucose. Individuals who were high risk received a phone call and letter to encourage follow-up care.
- To promote active living, Beaumont, Dearborn in partnership with Healthy Dearborn established walking clubs and biking programs serving 1,521 participants, physical fitness programs in community parks serving 850 individuals, a bike share program for the community, installation of bike racks in the community to promote exercise, and an annual 5K run and wellness expo.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- In partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Dearborn provided Share Our Strength's Cooking Matters Extra for Diabetes for 98 individuals. This six-week class includes the Cooking Matters for Adults curricula along with specialized information throughout the course for adults living with diabetes, caretakers of adults living with diabetes and pre-diabetic adults. Outcome data indicated a 22% aggregate increase in knowledge and confidence including significant improvement in using nutrition facts on food labels and buying healthy foods on a budget for families.

- Beaumont, Dearborn provided the National Diabetes Prevention Program at no cost to the community. This national evidence-based program from the Centers for Disease Control and Prevention is supported and promoted by the American Medical Association as one of the most effective ways to help physicians prevent or delay Type 2 diabetes in high-risk patients. This year-long program for those with pre-diabetes was provided to 68 individuals in the Dearborn service area in 2017 and 2018. Participants who attended the monthly maintenance sessions following the course averaged a weight loss of 5.8% of initial body weight, meeting target.
- In partnership with the National Kidney Foundation of Michigan, Beaumont, Dearborn offered free of charge to the community Diabetes Personal Action Toward Health (PATH). PATH is a national evidence-based program for those with Type 2 diabetes and their caregivers. The program is designed to enhance the ability of those with diabetes to manage their disease and to work more effectively with their health care providers. A total of 56 individuals from the Dearborn service area participated in Diabetes PATH. Outcome data indicated 89% of participants were more confident about handling their health condition after taking the workshop and showed significant improvements in testing blood sugar seven days a week and exercising more than 150 minutes per week. Participant satisfaction with the classes was 91% (very good).
- Beaumont, Dearborn provided Managing Your Diabetes education to 323 individuals in the community.
- Beaumont, Dearborn provided free diabetes screening in the community to 1,468 individuals.

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- Through a KaBoom grant, a vacant lot on Dearborn's east side was transformed into a vibrant area with a soccer park.
- Beaumont, Dearborn provided 1,060 children with the Coordinated Approach to Child Health (CATCH) Kids Club program, a physical activity and nutrition education program designed for elementary and middle-school aged children. This program has been found to be effective in improving physical activity and nutrition knowledge and in reducing overweight and obesity
- Beaumont, Dearborn provided physical and mental health services to youth in the community at Beaumont's Taylor and River Rouge Teen Health Centers and through a wellness program at Truman High School. In the first two years of this CHNA, 2,118 students received physical and mental health services.
- Beaumont, Dearborn provided nutrition education and hands-on cooking classes through a partnership with Gleaners Community Food Bank of Southeastern Michigan to offer Cooking Matters and Cooking Matters at the Store in the community. Cooking Matters equips families with the skills they need to stretch their food dollars and prepare healthy meals on a budget. These popular classes have been attended by 452 individuals in the first two years of this CHNA. Also, 33 teens participated in Beaumont's Cooking Matters for Teens class.

- Beaumont, Dearborn sponsored the Dearborn Farmers Market, providing access to fresh fruits and vegetables to the community and supporting healthy activities such as Harvest of the Month. The Power of Produce program was provided to children at the market to educate children in making healthy eating choices. This program allows children to taste new fruits and vegetables and engage in activities to understand where their food comes from. It also gives children $2 to spend on fresh produce every time they visit the market. In 2017 and 2018 1,800 children participated in the Power of Produce program. Also, 638 people were served with nutrition education services and information.
- Beaumont Healthy Dearborn developed a Healthy Restaurant Award program in 2018. 15 restaurants were recognized for providing healthy meal options on their menus.
- Beaumont Healthy Dearborn partnered with the Dearborn Public Schools district, Wayne State University's Center for Health and Community Impact, the University of Michigan-Dearborn Environmental Interpretive Center and ACCESS to address obesity in the schools. With support from the Michigan Health Endowment Fund, the team implemented a comprehensive nutrition and physical education program to impact obesity risk factors among K-8 grade students in eight public schools. The following activities were provided to students and their families in the eight participating schools in 2018: new school gardens; new nutrition education curricula tied to garden learning; new physical education curricula aimed at increasing levels of moderate to vigorous physical activity among K-8 students; new physical education equipment; GoNoodle Plus curricula to increase minutes of physical activity during regular classroom periods; family nights with physical activities and nutrition education aimed at families to reinforce healthy behaviors at home and schools; and after-school physical activity clubs. ■

Progress of Beaumont, Farmington Hills
2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the greatest impact in the community it serves, Beaumont, Farmington Hills worked closely with community organizations to expand access to a wide range of programs and services. The progress and outcomes for Beaumont, Farmington Hills are described below:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular risk factors and prevent death from sudden cardiac arrest.

- In fiscal years 2017 and 2018 Beaumont, Farmington Hills provided heart health screenings in the community to 1,427 individuals. The screenings consisted of blood pressure, cholesterol, glucose, stroke risk assessments and body mass index (BMI). All participants were provided counseling and information based on the results of their testing. Individuals who were high risk received a phone call and letter to encourage follow-up care.

- Beaumont, Farmington Hills provided the nationally recognized Walk with a Doc program in partnership with the Farmington Hills Nature Center. Walk with a Doc sessions began with a physician-led educational presentation on various topics related to heart disease, including diabetes and obesity. Educational sessions were followed by an interactive walk with the physician through the nature center grounds. For years 2017 and 2018, there were 269 participants in this program.
- During 2018, professionals from Beaumont, Farmington Hills provided heart health education presentations, Keeping Your Heart Young and The 20 Best Heart Healthy Habits, for 84 seniors attending two community-based programs. In addition, a six-session Living with Ease mindfulness stress reduction program, including yoga and guided meditation, served 134 community members.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- During 2017 and 2018, Beaumont, Farmington Hills partnered with the National Kidney Foundation of Michigan and the Area Agency on Aging 1-B to provide Diabetes Personal Action Toward Health (PATH) education to 32 individuals who received 186 educational units of service. PATH is a national evidence-based program for those with Type 2 diabetes and their caregivers. This six-week, evidence-based program is designed to enhance participants' confidence in their ability to manage their disease and work more effectively with their health care providers. Outcome data indicated 89% of participants were more confident about handling their health condition after taking the workshop and showed significant improvements in testing blood sugar seven days a week and exercising more than 150 minutes per week. Participant satisfaction with the classes was 91% (very good).
- Beaumont, Farmington Hills also provided the research-based National Diabetes Prevention Program for those who have pre-diabetes or are at high risk for pre-diabetes, and their caregivers. The year-long program focuses on lifestyle changes related to healthy eating, weight loss, physical activity, problem solving and coping skills. In 2018, 28 community members enrolled in the program. To date, 100% of participants have recorded their weight weekly, and the average time spent exercising per person per week is 147 minutes. Outcomes will be reported at the completion of the 24-28 sessions in 2019.
- In a 2018 partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Farmington Hills provided Share Our Strength's Cooking Matters Extra for Diabetes for 22 community members who collectively received 103 educational units of service. Cooking Matters is an evidence-based program recognized by the U.S. Department of Agriculture for Excellence in Nutrition Education. Trained staff, volunteer culinary instructors and Beaumont registered dietitians show participants how to purchase and prepare nutritious food in safe, healthful and tasty ways while stretching their food budget dollars. The six-week session curriculum features specialized information for adults living with diabetes, caregivers of adults living with diabetes and adults with pre-diabetes. Nineteen of 22 participants successfully completed the program.
- During 2017 and 2018, Beaumont, Farmington Hills health professionals provided interactive diabetes education for 240 community members attending a diabetes awareness day event, two health fairs and various educational presentations.

*Please see next page for continuation: Progress of Beaumont, Farmington Hills; **Priority 3: Obesity***

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- In 2018, Beaumont, Farmington Hills offered the evidence-based Cooking Matters for Adults, a six-week program covering nutrition, food labels, budgeting, grocery shopping and healthy food preparation, and Cooking Matters at the Store, a single session, 1.5 hour guided grocery store tour that teaches lower income adults how to get the most nutrition for their food dollars. 89.5% of participants successfully completed their Cooking Matters program.
- Beaumont, Farmington Hill's health professionals provided interactive one-on-one nutrition education for 561 community members attending four community health fairs. In addition, 75 individuals attended nutrition and weight management education classes in 2017.
- During 2017 and 2018, Beaumont, Farmington Hills launched Beaumont Gets Walking. Walking groups were established in 2017, and participants received toolkits consisting of pedometers, lanyards, walking logs, tip sheets and information on activities related to walking. More than 100 individuals joined the walking groups. In 2018, an additional walking program was introduced in partnership with CARROT Health and Wellness. This program provides a free mobile device application that rewards users for walking while leading each participant incrementally to develop a new normal level of activity and adopt walking as a lifelong healthy habit. In 2018, 286 participants downloaded the app, and more than 85% opened the app daily. Beaumont, Farmington Hills users averaged a rate of personalized goal achievement that exceeded that of all CARROT users.
- In collaboration with the South Redford School District, Beaumont, Farmington Hills operates a school-based health center at Pierce Middle School. During 2017 and 2018, the center provided 2,471 primary care and behavioral health visits. In addition, evidence-based programming targeted obesity through a focus on nutrition education, becoming "label savvy," increasing physical activity and reducing screen time. The program served 136 students who collectively received 524 educational units of service. Students also met or exceeded outcome targets of the program.
- Beaumont, Farmington Hills sponsored the Farmington Farmers Market, which brings fresh fruits and vegetables to the community. During Farmers Markets, Beaumont, Farmington Hills provided free health screenings, nutrition interactive activities, heart health education and educational literature to approximately 3,249 individuals. During 2018, the popular Power of Produce Club (POP) nutrition program was added for children ages 4-12. The POP program, presented weekly from May to October, taught 227 children about fruits and vegetables, local food systems and healthy food preparation through fun activities.
- Beaumont, Farmington Hills provided education in the community on nutrition and healthy weights targeting children, adolescents, adults and seniors. These events included presentations to Head Start programs and faith-based organizations as well as back to school programs and health fairs at community libraries, city halls and other non-profit organizations. These activities reached more than 2,455 individuals. ■

Progress of Beaumont, Grosse Pointe
2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the greatest impact in the community, Beaumont, Grosse Pointe worked closely with community organizations to expand access to a wide range of programs and services. The progress and outcomes for Beaumont, Grosse Pointe are described below:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular risk factors and prevent death from sudden cardiac arrest.

- Beaumont, Grosse Pointe, provided student heart screenings to high school students ages 13-18 to detect abnormal heart structure or abnormal rhythms and prevent sudden cardiac arrest. Test results are reviewed with parents and, if indicated, follow up is suggested. During 2017 and 2018, 183 students were screened for heart abnormalities in the Beaumont, Grosse Pointe service area.
- In 2017 and 2018 Beaumont, Grosse Pointe offered heart health screening in the community to 390 adults. The screenings consisted of blood pressure, cholesterol, glucose, stroke risk assessments and body mass index (BMI). All participants were provided counseling and information based on the results of their testing. Individuals who were high risk received a phone call and letter to encourage follow-up care.
- Health professionals from Beaumont, Grosse Pointe provided 240 hours of smoking cessation services to 36 individuals in the community during 2017 and 2018 to address smoking as a risk factor for cardiovascular disease and other conditions.
- During 2017 and 2018, health professionals from Beaumont, Grosse Pointe also provided 271 community members with education on stress management through various presentations and panel discussions, addressing stress as a risk factor for cardiovascular disease.
- In 2017 and 2018, Beaumont, Grosse Pointe created support groups for those in the community with chronic obstructive pulmonary disease and their loved ones. These groups resulted in 244 individuals obtaining education about COPD as well as meeting others diagnosed with the same health condition to improve their breathing and their heart health.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- Beaumont, Grosse Pointe provided the research-based National Diabetes Prevention Program (DPP) for those who have pre-diabetes or are at high risk for pre-diabetes and their caregivers. The year-long program focuses on lifestyle changes related to healthy eating and weight loss, physical activity, problem solving and coping skills. In 2017 and 2018, DPP served 40 community members. Outcome data illustrates 91% of participants were more confident about handling their health condition with

significant improvements in testing blood sugar seven days a week, and 79% of participants exercised more than 150 minutes per week. Participant satisfaction with the classes was 91% "very good" in 2017 and 89% in 2018.

- In 2017 and 2018, in partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Grosse Pointe provided the Share our Strength Cooking Matters Extra for Diabetes program for 33 community members who collectively received 185 educational units of service. Cooking Matters is an evidence-based program recognized by the U.S. Department of Agriculture for Excellence in Nutrition Education. Trained staff, volunteer culinary instructors and Beaumont registered dietitians showed participants how to purchase and prepare nutritious food in safe, healthful and tasty ways while stretching their food budget dollars. The six-week session curriculum featured specialized information for adults living with diabetes, caregivers of adults living with diabetes and adults with pre-diabetes. Participant satisfaction with the classes was "very good," and outcome data indicated a significant improvement in aggregate knowledge of the above topics.
- During 2017 and 2018, Beaumont, Grosse Pointe health professionals provided interactive diabetes education for 84 community members through various educational presentations and activities

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- Beaumont, Grosse Pointe provided the nationally recognized program Walk With a Doc program to individuals in the community during 2017 and 2018. These walks began with a physician-led educational presentation on various topics related to obesity, including heart disease and diabetes. Educational sessions were followed by an interactive walk with the physician along the designated route.
- In 2018, an additional walking program was introduced to Beaumont, Grosse Pointe community members in partnership with CARROT Health and Wellness. This program provides a free mobile device application that rewards users for walking while leading each participant incrementally to develop a new normal level of activity and adopt walking as a lifelong healthy habit. 89 participants downloaded the CARROT app and, using personalized goals, incrementally increased their steps, entered contests and earned rewards.
- The Beaumont Health and Fitness Center of Beaumont, Grosse Pointe partnered with the St. Clair Shores Senior Activities Center and the Healthy St. Clair Shores Alliance of community organizations to hold an annual 28-day Walking Challenge. More than 925 community members participated in this event during 2017 and 2018.
- During 2017, Beaumont, Grosse Pointe partnered with the YMCA Girls on the Run program for young girls in grades 3-8. Running is expected to inspire and motivate girls to embrace lifelong health and fitness and build confidence. The Beaumont sponsorship enabled 3,000 girls to become engaged in the program. ■

Progress of Beaumont, Royal Oak
2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the greatest impact in the community, Beaumont, Royal Oak worked closely with community organizations to expand access to the community of programs and services. The progress and outcomes for Beaumont, Royal Oak are described below:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular risk factors and prevent death from sudden cardiac arrest.

- Beaumont, Royal Oak provided student heart screenings to high school students ages 13-18 to detect abnormal heart structure or abnormal rhythms and prevent sudden cardiac arrest. Test results are reviewed with parents and, if indicated, follow up is suggested. During 2017 and 2018, 2,221 students were screened for heart abnormalities in the Royal Oak service area. Of these, 89 students were told to follow up with a physician, and 12 were told to stop playing sports pending a cardiology follow up.
- Beaumont, Royal Oak offered heart health screenings, which include blood pressure, cholesterol and glucose checks, at community locations to identify and counsel individuals with elevated levels. In 2018, 155 people received all three tests.
- In 2017 and 2018 Beaumont, Royal Oak also offered the 7 for $70 heart and vascular screenings to 1,977 adults to identify risk factors in cardiovascular disease. Seven tests were offered for the reduced cost of $70 including blood tests, artery testing, EKG and life style review. Results were examined to recommend a course of action for improved heart and vascular health for each participant.
- Health professionals from Beaumont, Royal Oak provided education through presentations on cardiovascular health to community groups through the Beaumont Speakers Bureau. Presentations were made to 1,495 individuals during 2017 and 2018 in the Beaumont, Royal Oak service area.
- Beaumont, Royal Oak offered Food for the Heart classes to the community. This program helps participants to lower cholesterol/triglycerides and blood pressure and to lose weight – all risk factors for cardiovascular disease. In 2017 and 2018, 108 individuals participated in the program.
- Beaumont, Royal Oak offered Become Smoke Free to assist individuals in quitting smoking, a risk factor for cardiovascular disease. The seven-week program is led by a treatment specialist in a supportive environment to help participants stop smoking. The program focuses on risks associated with tobacco use, physical and psychological dependence on smoking, exploring personal reasons for smoking and strategies to manage the side effects of quitting. Lifestyle changes are also incorporated into this program for post-program management of a smoke free life. The program includes a one, three, six and 12-month follow up by a respiratory therapist. During 2017 and 2018, 97 participants completed the program.

- During 2017 and 2018, mindfulness programs were accessible through Beaumont, Royal Oak as a means of enhancing self-awareness and the capacity to manage distressing emotions. Benefits of the Mindfulness Based Stress Reduction programs included reduction of anxiety and stress and lowering blood pressure, which are risk factors for cardiovascular disease. In 2018, 52 people participated in one of the three 8-week courses, and 45 individuals participated in one of the three half-day stress reduction retreats offered.
- Beaumont, Royal Oak offered the Women Exercising to Live Longer (WELL) program. The six-month exercise and risk reduction program helps women reduce their likelihood of developing heart disease and prevent future cardiac events by helping reduce the risk factors of sedentary lifestyle and obesity. During 2017 and 2018, 270 women participated in WELL and completed assessments.
- In 2018, Beaumont, Royal Oak provided the Guiding Hearts Support Group to support patients, families and community members dealing with heart health issues; it also provided accessibility to education in a caring environment. 167 people participated in the support group.
- Free blood pressure checks were accessible through Beaumont, Royal Oak at various venues throughout the community such as farmers markets, health fairs and more. In 2018, 373 people received blood pressure checks and appropriate education.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- Beaumont, Royal Oak provided the research-based National Diabetes Prevention Program (DPP) for those who have pre-diabetes or are at high risk for pre-diabetes and their caregivers. The year-long program focuses on lifestyle changes related to healthy eating and weight loss, physical activity, problem solving and coping skills. During 2018, 42 people participated in DPP. Additional behavior change data will be collected in 2019 as groups are completed.
- In partnership with the National Kidney Foundation of Michigan, Beaumont, Royal Oak partnered with libraries, senior centers and community organizations to offer Diabetes Personal Action Toward Health (PATH) programs designed to help people living with, or at high-risk of, diabetes and their caregivers. This six-week evidence-based program is designed to enhance participant's confidence in their ability to manage their disease and work more effectively with their health care providers. During 2017 and 2018, 52 individuals participated in Diabetes PATH with 36 graduates completing four or more sessions while providing outcome measures. Outcome data indicated 89% of participants were more confident about handling their health condition after taking the workshop and showed significant improvements in testing blood sugar seven days a week and exercising more than 150 minutes per week. Participant satisfaction with the classes was 91% (very good).
- Health professionals from Beaumont, Royal Oak provided education through presentations on diabetes to community groups and individuals through the Beaumont Speakers Bureau and community events such as World Kidney Day. Presentations were made to 401 individuals during 2017 and 2018 in the Beaumont, Royal Oak service area.
- A diabetes support group was offered through Beaumont, Royal Oak, providing monthly sessions designed to improve diabetes self-management for adults with diabetes and their caregivers. During 2017 and 2018, the group provided help to 58 participants.

- During 2017, Managing Type 1 Diabetes in the School Setting: A Guide for Non-Medical Personnel in Schools online video and accompanying guide was made available to schools in the Royal Oak service area to provide care to students with Type 1 diabetes.

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- Beaumont, Royal Oak provided hands-on cooking classes to children six years and older through the Weight Control Center. This included cooking and gardening classes led by a registered dietitian to aid in understanding nutrition and healthy meal preparation. During 2017 and 2018, 160 kids participated in the classes.
- In partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Royal Oak offered Share Our Strength's Cooking Matters for Adults, Cooking Matters for Teens and Cooking Matters at the Store. Cooking Matters is an evidence-based program recognized by the U.S. Department of Agriculture for Excellence in Nutrition Education. The six-week workshops and single session store tours for adults and teens equip families with the knowledge and skills they need to shop for and prepare healthy meals on a budget. In 2018, 89 people participated in Cooking Matters for Adults with 86 graduating, 84 students participated in Cooking Matters for Teens with 73 graduating, and 48 people participated in single session grocery store tours.
- In addition to Cooking Matters at the Store, Beaumont, Royal Oak Food and Nutrition Services offered single session grocery store tours focused on diabetes, heart health and weight management. In 2018, 41 people participated in the grocery store tours.
- A partnership with the Oak Park Farmers' Market began in 2018, with Beaumont, Royal Oak providing weekly health education on topics related to obesity, including heart disease and diabetes, and providing blood pressure checks. On average more than 40 individuals each week participated in these activities throughout the summer.
- Health professionals from Beaumont, Royal Oak provided education through presentations on healthy eating, fitness and weight management to community groups through the Beaumont Speakers Bureau. Education on obesity prevention was provided to 1,694 individuals during 2017 and 2018 in the Beaumont, Royal Oak service area.
- Beaumont Children's provided custom-built bicycles at no charge to metro Detroit children with special needs to promote and encourage physical activity. During 2017 and 2018, 110 bikes were distributed during the annual Beaumont, Royal Oak community event.
- In 2017, Beaumont, Royal Oak initiated the Beaumont Gets Walking program with the mission of improving health, fitness and quality of life through daily physical activity. The walking program was initiated in collaboration with a local mall and involved 43 members in 11 groups. In 2018, the mall walking program grew to 63 participants and included monthly health and wellness education sessions and neighborhood walking groups of 110 community walkers.
- In 2018, the walking program expanded by adding the nationally recognized Walk With a Doc program. These walks began by a physician providing education on various topics related to obesity,

including heart disease and diabetes, followed by an interactive walk with the physician along a designated route. Six events were hosted in Royal Oak and Berkley with 48 walkers.

- In 2018, an additional walking program was introduced to Beaumont, Royal Oak communities in partnership with CARROT Health and Wellness. This program provides a free mobile device application that rewards users for walking while leading each participant incrementally to develop a new normal level of activity and adopt walking as a lifelong healthy habit. 336 participants downloaded the CARROT app and, using personalized goals, incrementally increased their steps, entered contests and earned rewards.
- During 2018, Beaumont, Royal Oak piloted the Enhance Fitness senior exercise program in collaboration with the City of Berkley Parks and Recreation department. Enhance Fitness is a free, evidence-based fitness program that helps older adults at all levels of fitness and socioeconomic status become more active, energized and empowered to sustain independent lives. Beaumont, Royal Oak offered 13 Enhance Fitness class sessions with 21 total participants and 158 training contacts. ■

Progress of Beaumont, Taylor

2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the most impact in the community, Beaumont, Taylor established Healthy Taylor, a multi-year initiative that expands community access to programs and services designed to encourage healthy eating and active living. Healthy Taylor has strong support and partnerships including the City of Taylor, Taylor Public Schools and more than 120 individuals including nonprofit staff and community members. Coalition action teams include Healthy Schools, Healthy Community, Healthy Worksites and Communications/Marketing. The progress and outcomes for Beaumont, Taylor are described below:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular disease risk factors and prevent death from sudden cardiac arrest.

- In 2017 and 2018, Beaumont, Taylor provided heart health screening in the community to 865 individuals. The screenings consisted of blood pressure, cholesterol, glucose, stroke risk assessments and body mass index (BMI). All participants were provided counseling and information on their blood pressure, cholesterol and glucose. Individuals who were high risk received a phone call and letter to encourage follow-up care.
- Beaumont, Taylor launched Beaumont Gets Walking in 2017, which continued throughout 2018. Walking groups received toolkits to support their walking consisting of pedometers, lanyards and walking logs for each member along with tip sheets. A total of 913 individuals have participated in Beaumont Gets Walking.

- In partnership with the American Heart Association, Healthy Taylor implemented the Choose Health program, which addresses cardiovascular health based on seven risk factors that people can improve through lifestyle changes: smoking; physical activity; eating better; losing weight; managing blood pressure and reducing blood sugar. More than 120 individuals participated in this program.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- Beaumont, Taylor provided 865 individuals with diabetes screening in the community.
- In partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Taylor provided Share Our Strength's Cooking Matters Extra for Diabetes. This six-week class includes the Cooking Matters for Adults curricula along with specialized information throughout the course for adults living with diabetes, caregivers of adults living with diabetes or adults with pre-diabetes. About 52 individuals attended classes. Outcome data indicated a 22% aggregate increase in knowledge and confidence including significant improvement in using nutrition facts on food labels and buying healthy foods on a budget for families.
- Beaumont, Taylor provided the National Diabetes Prevention Program at no cost to the community. This national evidence-based program from the Centers for Disease Control and Prevention is supported and promoted by the American Medical Association as one of the most effective ways to help physicians prevent or delay Type 2 diabetes in high-risk patients. This year-long program for those with pre-diabetes or at high risk for diabetes was provided to 28 individuals in the Beaumont, Taylor service area in 2017 and 2018. Participants who attended the monthly maintenance sessions following the course averaged a weight loss of 5.8% of initial body weight, meeting target.
- In partnership with the National Kidney Foundation of Michigan, Beaumont, Taylor offered free of charge to the community Diabetes Personal Action Toward Health (PATH). PATH is a national evidence-based program for those with Type 2 diabetes and their caregivers. The program is designed to enhance the ability of those with diabetes to manage their disease and work more effectively with their health care providers. A total of 38 individuals from the Taylor service area participated in Diabetes PATH. Outcome data indicated 89% of participants were more confident about handling their health condition after taking the workshop and showed significant improvements in testing blood sugar seven days a week and exercising more than 150 minutes per week. Participant satisfaction with the classes was 91% (very good).

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- Beaumont, Taylor provided nutrition education and hands-on cooking classes through a partnership with Gleaners Community Food Bank of Southeastern Michigan to offer Cooking Matters for Adults in the community and Cooking Matters at the Store. Cooking Matters equips families with the skills they need to stretch their food dollars and prepare healthy meals on a budget. An estimated 151 individuals took the class, with 625 units of service provided. Participant satisfaction with the classes was 98% (very good). Outcome data indicated an aggregate increase in knowledge of 25% including

significant improvement using nutrition facts on food labels, adjusting meals to be healthier and confidence buying healthy foods for their family on a budget.

- In the Beaumont, Taylor service area, 470 children were provided the Coordinated Approach to Child Health (CATCH) Kids Club program after-school and in the summer. CATCH Kids Club creates behavior change by enabling children to identify healthy foods and by increasing the amount of moderate to vigorous physical activity children engage in each day. Aggregated student outcome data indicated improvements in multiple measures, including a 36% increase in the consumption of fruits and vegetables and a small increase in exercise or participation in sports activities for at least 20 minutes. 100% of students reported they almost always or always read nutrition labels on packages after participating in CATCH Kids Club for a school year.
- Beaumont Healthy Taylor partnered with the American Heart Association for the Rethink Your Drink campaign. A total of 437 nutrition counseling sessions were provided in conjunction with the Beaumont Teen Health Centers with 395 student pledges to reduce the consumption of sugary drinks. In addition, 1,414 were given health information and fruit-infused water drinks.
- Beaumont, Taylor was a sponsor of the Taylor Farmers Market. The Power of Produce program was provided to 384 children to empower them to make healthy food choices.
- Beaumont, Taylor provided the Walk With a Doc program to individuals in the community. This nationally recognized program was provided to 175 participants, who were provided information related to obesity, heart disease and diabetes followed by a walk with the physician. ■

Progress of Beaumont, Trenton

2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the most impact in the community, Beaumont, Trenton established Healthy Trenton, a multi-year initiative that expands access to the community of programs and services designed to encourage healthy eating and active living. Healthy Trenton has strong support and partnerships including the City of Trenton, Trenton Public Schools and more than 120 individuals including nonprofit and community members. Coalition action teams include Healthy Schools, Healthy Community, Healthy Worksites, Health Communications and Health Marketing. The progress and outcomes for Beaumont, Trenton are described below:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular disease risk factors and prevent death from sudden cardiac death.

- In fiscal years 2017 and 2018 Beaumont, Trenton provided heart health screening in the community to 1,728 individuals. The screenings consisted of blood pressure, cholesterol, glucose, stroke risk assessments and body mass index (BMI). All participants were provided counseling and information

on their blood pressure, cholesterol and glucose. Individuals who were high risk received a phone call and letter to encourage follow-up care.

- To promote active living, Beaumont, Trenton established walking clubs serving 2,521 participants. Bike racks were installed in the community to promote exercise through bike riding, and a 5K run and wellness expo was held in conjunction with St. Paul Lutheran Church with 300 participants.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- Beaumont, Trenton provided 1,074 individuals with diabetes screening in the community.
- In partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Trenton provided Share Our Strength's Cooking Matters Extra for Diabetes. This six-week class includes the Cooking Matters for Adults curricula along with specialized information throughout the course for adults living with diabetes, caretakers of adults living with diabetes and pre-diabetic adults. A total of 66 individuals attended these classes. Outcome data indicated a 22% aggregate increase in knowledge and confidence including significant improvement in using nutrition facts on food labels and buying healthy foods on a budget for families.
- Beaumont, Trenton provided the National Diabetes Prevention Program at no cost to the community. This national evidence-based program from the Centers for Disease Control and Prevention is supported and promoted by the American Medical Association as one of the most effective ways to help physicians prevent or delay Type 2 diabetes in high-risk patients. This year-long program for those with pre-diabetes or at increased risk of diabetes was provided to 25 individuals in the Trenton service area in 2017 and 2018. Participants who attended the monthly maintenance sessions following the course averaged a weight loss of 5.8% of initial body weight, meeting target.
- In partnership with the National Kidney Foundation of Michigan, Beaumont, Trenton offered free of charge to the community Diabetes Personal Action Toward Health (PATH). PATH is a national evidence-based program for those with Type 2 diabetes and their caregivers. The program is designed to enhance the ability of those with diabetes to manage their disease and to work more effectively with their health care providers. A total of 22 individuals from the Trenton service area participated in Diabetes PATH. Outcome data indicated 89% of participants were more confident about handling their health condition after taking the workshop and showed significant improvements in testing blood sugar seven days a week and exercising more than 150 minutes per week. Participant satisfaction with the classes was 91% (very good).

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- Beaumont, Trenton launched Beaumont Gets Walking in 2017, which continued throughout 2018. Walking groups received toolkits to support their efforts consisting of pedometers, lanyards and walking logs for each member along with tip sheets. A total of 636 individuals have participated in Beaumont Gets Walking.

- Beaumont, Trenton provided nutrition education and hands-on cooking classes through a partnership with Gleaners Community Food Bank of Southeastern Michigan to offer Cooking Matters for Adults in the community and Cooking Matters at the Store. Cooking Matters equips families with the skills they need to stretch their food dollars and prepare healthy meals on a budget. These classes were attended by 246 individuals, with 803 units of service provided. Participant satisfaction with the classes was 98% (very good). Outcome data indicated a 25% aggregate increase in knowledge and confidence including significant improvement in using nutrition facts on food labels and buying healthy foods on a budget for families.
- In the Beaumont, Trenton service area 470 children were provided the Coordinated Approach to Child Health (CATCH) Kids Club program in after-school and summer programs. CATCH Kids Club creates behavior change by enabling children to identify healthy foods and by increasing the amount of moderate to vigorous physical activity children engage in each day. Aggregated student outcome data indicated improvements in multiple measures including a 36% increase in the consumption of fruits and vegetables and a small increase in exercise or participation in sports activities for at least 20 minutes. 100% of students reported they almost always or always read nutrition labels on packages after participating in CATCH Kids Club for a school year.
- Beaumont, Trenton provided obesity prevention related nutrition information at community events in the Beaumont, Trenton service area to 356 individuals, and 938 individuals received information about local physical activity options. ■

Progress of Beaumont, Troy

2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the greatest impact in the community, Beaumont, Troy worked closely with community organizations to expand access to a wide range of programs and services. The progress and outcomes for Beaumont, Troy are described below:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular risk factors and prevent death from sudden cardiac arrest.

- Beaumont, Troy provided student heart screenings to high school students ages 13-18 to detect abnormal heart structure or abnormal rhythms and prevent sudden cardiac arrest. Test results are reviewed with parents and, if indicated, follow up is suggested. During 2017 and 2018, 390 students were screened for heart abnormalities in the Beaumont, Troy service area. In 2017, there were nine recommendations for follow up and one recommendation to stop sports pending a cardiology follow up. This statistic is unavailable for 2018.

- Beaumont, Troy offered Quit Smoking Now! classes during 2017. Each seven-week program is led by a treatment specialist and offers an environment and support to help participants stop smoking, which is a risk factor for cardiovascular disease. The program focuses on risks associated with tobacco use, physical and psychological dependence on smoking, exploring personal reasons for smoking and strategies to manage the side effects of quitting. Lifestyle changes are also incorporated into this program for post program management of a smoke free life. The program includes a one, three, six and 12-month follow up by a respiratory therapist. In 2017, there were 19 participants for seven sessions.
- The Beaumont Speakers Bureau provided education on cardiovascular disease, risk factors, heart health, treatment options and CPR. During 2017 and 2018, 614 individuals in the Beaumont, Troy service area received cardiovascular health education. In partnership with the Bruce/Romeo Fire Departments, 76 firefighters were taught to use the Lucas Device, a chest compression device to be used in emergency situations.
- During 2017 and 2018, Beaumont, Troy offered support groups with monthly meetings for education and support of community health. Aphasia support groups increase self-management with education on cardiovascular disease, stroke prevention and stroke recovery. The Cane and Able stroke support group provides education on cardiovascular disease and stroke prevention while helping post-stroke individuals with re-entry into the community. During 2017 and 2018, 483 adults participated in this group. Guiding Hearts support groups provide adults who have heart disease and other heart-related issues a holistic approach to enhance their quality of life. Physicians and other speakers are scheduled to speak to the group each month on various related topics. During 2017 and 2018, 251 people attended these groups.
- During 2017 and 2018, Beaumont, Troy hosted and participated in community events such as Keeping the Beat, Sterling Heights Healthy Living Expo, Lunch and Learns and a Healthy Living event: Heart, Brain, Mind and Vein Health. A total of 1,825 community members received heart health education through these events.
- In 2017 and 2018, Beaumont, Troy offered Food for the Heart classes to the community. Part I helps participants lower cholesterol/triglycerides, blood pressure and lose weight, all risk factors for cardiovascular disease. Part II includes education about the impact of sodium and vitamins to the heart together with healthy decisions for dining out. Six classes were held with 101 people participating.
- Beaumont, Troy also offered Mindfulness Based Stress Reduction classes to the community to enhance self-awareness and the capacity to manage distressing emotions. Benefits of the mindfulness program include a reduction of anxiety and stress as well as lowering blood pressure, which are risk factors for cardiovascular disease. A total of 214 individuals attended this class during 2017 and 2018.
- Through the American Academy of Family Physicians, Beaumont, Troy teaches Tar Wars, a tobacco-free education program for elementary school children. Tar Wars focuses on the dangers of tobacco use and is instrumental in decreasing the use of tobacco among pre-teens in hopes of reducing a risk factor for cardiovascular disease. During 2017 and 2018, physicians and residents from the Beaumont, Troy Family Medicine Clinic visited 24 schools where 1,899 students were introduced to the program.

- In 2017 and 2018, Beaumont, Troy offered the 7 for $70 heart and vascular screenings for 1,755 adults to identify risk factors in cardiovascular disease. Participants could receive seven tests, including blood tests, artery testing, EKG and life style analysis, for the reduced cost of $70. Each participant's results were examined to recommend a course of action for improved heart and vascular health.
- During 2017, Beaumont, Troy purchased automatic external defibrillators (AEDs) for non-profit organizations and trained core individuals on site with the skills to manage and use the equipment in cases of sudden cardiac arrest. These individuals then trained others in their organization to promote the use of AEDs in the communities they serve.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- In 2017 and 2018, Beaumont, Troy provided a monthly support group designed to improve diabetes self-management for adults with diabetes and their caregivers. During 2017, the group provided nine sessions with help for 16 participants.
- In partnership with the National Kidney Foundation of Michigan, Beaumont, Troy partnered with libraries, senior centers and community organizations to offer Diabetes Personal Action Toward Health (PATH) programs designed to help people living with, or at high-risk of, diabetes and their caregivers. This six-week evidence-based program is designed to enhance participants' confidence in their ability to manage their disease and work more effectively with their health care providers. During 2017 and 2018, 66 individuals participated in Diabetes PATH, with 55 graduates completing four or more sessions while providing outcome measures. Outcome data indicated 89% of participants were more confident about handling their health condition after taking the workshop and showed significant improvements in testing blood sugar seven days a week and exercising more than 150 minutes per week. Participant satisfaction with the classes was 91% (very good).
- Beaumont, Troy provided the research-based National Diabetes Prevention Program (DPP) for those who have pre-diabetes or are at a high risk for diabetes and their caregivers. The year-long program focuses on lifestyle changes related to healthy eating and weight loss, physical activity, problem solving and coping skills. During 2018, 39 people participated in DPP. Additional behavior change data will be collected in 2019 as groups complete the program.
- In partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Troy provided Share Our Strength's Cooking Matters Extra for Diabetes. Cooking Matters is an evidence-based program recognized by the U.S. Department of Agriculture for Excellence in Nutrition Education. Trained staff, volunteer culinary instructors and Beaumont registered dietitians show participants how to purchase and prepare nutritious food in safe, healthful and tasty ways while stretching their food budget dollars. This six-week class includes the Cooking Matters for Adults curricula along with specialized information throughout the course for adults living with diabetes, caregivers of adults living with diabetes or adults with pre-diabetes. These classes were attended by 71 individuals, with 57 graduates completing four or more sessions while providing outcome measures. Outcome data indicated a 22% aggregate increase in knowledge and confidence including significant improvement in using nutrition facts on food labels and buying healthy foods on a budget for families.

- Through the Living Well event Diabetes and You hosted by Beaumont, Troy, the Beaumont Speakers Bureau and other community health events, health professionals provided interactive diabetes education to more than 1,138 community members.
- Beaumont, Troy is committed to improving the lives of children with Type 1 diabetes. An online video, Managing Type 1 Diabetes in the School Setting: A Guide for Non-Medical Personnel in Schools, and an accompanying step-by-step guide were provided to schools to care for these students.

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- In 2017, Beaumont, Troy initiated the Beaumont Gets Walking program with the mission of improving health, fitness and quality of life through daily physical activity. The walking program was initiated in collaboration with a local mall and involved 40 participants. Beaumont Gets Walking was also offered at a senior center, involving eight groups and six teams comprised of 62 participants. In 2018, the Beaumont Gets Walking mall walking program was expanded and included monthly health and wellness education sessions and neighborhood walking groups of 110 community walkers.
- Beaumont, Troy provided the nationally recognized Walk With a Doc program, offering three sessions for 57 participants. Walk with a Doc sessions began with a physician-led educational presentation on various topics related to obesity, including heart disease and diabetes, followed by an interactive walk with the physician along a designated route. Walking programs were also launched in partnership with the Troy Historic Village and Troy Walk With a Cop program.
- In 2018, Beaumont, Troy introduced an additional walking program in partnership with CARROT Health and Wellness. This program provides a free mobile device application that rewards users for walking while leading each participant incrementally to develop a new normal level of activity and adopt walking as a lifelong healthy habit. 279 participants downloaded the CARROT app and, using personalized goals, incrementally increased their steps, entered contests and earned rewards.
- Beaumont, Troy provided free hands-on cooking classes to children six years and older through the Beaumont Weight Control Center. The classes were led by a registered dietitian to aid in understanding nutrition and healthy meal preparation. During 2017 and 2018, 117 children participated in the classes.
- In 2018 Beaumont, Troy offered Cooking Matters at the Store. Cooking Matters is an evidence-based program recognized by the U.S. Department of Agriculture for Excellence in Nutrition Education. This was a single session store tour for adults and teens to equip families with the knowledge and skills they need to shop for and prepare healthy meals on a budget. Ten individuals participated during the year. Education about healthy eating, fitness and weight management was provided through the Beaumont Speakers Bureau and community health events on obesity prevention to 420 individuals during 2017 and 2018. Beaumont, Troy also hosted a Living Well event, How to Achieve a Healthy Weight and Lifestyle, educating 75 additional community members.

- Beaumont Children's provided custom-built bicycles at no charge to metro Detroit children with special needs to promote and encourage physical activity. During 2017 and 2018, 36 bikes were distributed during the annual community event to children in the Beaumont, Troy service area.
- In 2017, the Beaumont Health Club, formerly Sola Life and Fitness, offered free fitness classes to the community in the Beaumont, Troy service area. More than 300 community members registered for the classes, which promote increased physical activity and wellness education.
- Through collaboration with the Lake Orion Wellness Center, Beaumont, Troy provided an on-site wellness liaison for seniors and other community members. Participants were provided health assessments, fall prevention information, health and fitness education and recommendations for classes to maintain physically active lives. The liaison worked with 3,065 seniors at the center during 2017 and 2018 and provided blood pressure checks for an additional 2,183 individuals in the community.
- In collaboration with a local professional baseball league, Beaumont, Troy hosted a Family Fun Day at the stadium for children with special needs. Baseball players provided modified sports activities to help increase the physical well-being of these children. 198 children participated during the 2017 and 2018 events.
- In 2018, Beaumont, Troy piloted implementation of the Enhance Fitness senior exercise program. Enhance Fitness is a free, evidence-based fitness program that helps older adults at all levels of fitness and socioeconomic status become more active, energized and empowered to sustain independent lives. Beaumont, Troy offered 12 Enhance Fitness class sessions for 28 total participants and 260 training contacts in partnership with the City of Sterling Heights Parks and Recreation department. ■

Progress of Beaumont, Wayne
2016 CHNA

The implementation strategy for fiscal years 2017-2019 focused on three priority health needs: cardiovascular disease, diabetes and obesity. Progress against these priorities for 2017 and 2018 is summarized below. These strategies built on the programs and initiatives established in the 2013 CHNA.

To achieve the most impact in the community, Beaumont, Wayne established Healthy Wayne and Healthy Westland, multi-year initiatives that expand access to the community of programs and services designed to encourage healthy eating and active living. Healthy Wayne and Healthy Westland have strong support and partnerships including the City of Wayne, Wayne-Westland Schools and the City of Westland. Healthy Community coalitions include more than 82 participating organizations and individuals. Coalition action teams include Healthy Eating, Healthy Active Living, Healthy Built Environment, Healthy Worksites and Healthy Schools. The progress and outcomes for Beaumont, Wayne are described on the next page:

Priority 1: Cardiovascular Disease

Goal: Decrease cardiovascular disease risk factors prevent death from sudden cardiac arrest.

- In fiscal years 2017 and 2018, Beaumont, Wayne provided heart health screenings in the community to 1,507 individuals. The screenings consisted of blood pressure, cholesterol, glucose, stroke risk assessments and body mass index (BMI). All participants were provided counseling and information on their blood pressure, cholesterol and glucose. Individuals who were high risk received a phone call and letter to encourage follow-up care.
- Beaumont, Wayne provided CPR and first aid training to community members through the Beaumont Teen Health Centers in Romulus and Inkster.

Priority 2: Diabetes

Goal: Decrease rate of new diabetes cases and of diabetes complications.

- In partnership with Gleaners Community Food Bank of Southeastern Michigan, Beaumont, Wayne provided Share Our Strength's Cooking Matters Extra for Diabetes. This six-week class includes the Cooking Matters for Adults curricula along with specialized information throughout the course for adults living with diabetes, caretakers of adults living with diabetes and adults with pre-diabetes. About 116 individuals attended these classes with 543 units of education. Outcome data indicated a 22% aggregate increase in knowledge and confidence including significant improvement in using nutrition facts on food labels and buying healthy foods on a budget for families.
- Beaumont, Wayne provided the National Diabetes Prevention Program at no cost to the community. This national evidence-based program from the Centers for Disease Control and Prevention is supported and promoted by the American Medical Association as one of the most effective ways to help physicians prevent or delay Type 2 diabetes in high-risk patients. This year-long program for those with pre-diabetes was provided to 25 individuals in the Beaumont, Wayne service area in 2017 and 2018. Participants who attended the monthly maintenance sessions following the course averaged a weight loss of 5.8% of initial body weight, meeting target.
- In partnership with the National Kidney Foundation of Michigan, Beaumont, Wayne offered free of charge to the community Diabetes Personal Action Toward Health (PATH). PATH is a national evidence-based program for those with Type 2 diabetes and their caregivers. The program is designed to enhance the ability of those with diabetes to manage their disease and work more effectively with their health care providers. A total of 21 individuals from the Beaumont, Wayne service area participated in Diabetes PATH. Outcome data indicated 89% of participants were more confident about handling their health condition after taking the workshop and showed significant improvements in testing blood sugar seven days a week and exercising more than 150 minutes per week. Participant satisfaction with the classes was 91% (very good).

*Please see next page for continuation: Progress of Beaumont, Wayne; **Priority 3: Obesity***

Priority 3: Obesity

Goal: Decrease rate of obesity in children and adults by promoting healthy eating and active living behaviors.

- Beaumont, Wayne launched Beaumont Gets Walking in 2017 and continued it throughout 2018. Walking groups received toolkits to support their walking consisting of pedometers, lanyards and walking logs for each member along with tip sheets. A total of 765 individuals have participated in Beaumont Gets Walking.
- Beaumont, Wayne provided nutrition education and hands-on cooking classes through a partnership with Gleaners Community Food Bank of Southeastern Michigan to offer Cooking Matters for Adults in the community and Cooking Matters at the Store. Cooking Matters equips families with the skills they need to stretch their food dollars and prepare healthy meals on a budget. These classes were attended by 143 individuals, with 686 units of service provided. Participant satisfaction with the classes was 98% (very good). Outcome data indicated a 25% aggregate increase in knowledge and confidence, including significant improvement in using nutrition facts on food labels and buying healthy foods on a budget for families.
- In the Beaumont, Wayne service area, 190 children were provided the Coordinated Approach to Child Health (CATCH) Kids Club program in after-school and summer programs. CATCH Kids Club creates behavior change by enabling children to identify healthy foods and by increasing the amount of moderate to vigorous physical activity children engage in each day. Aggregated student outcome data indicated improvements in multiple measures, including a 36% increase in the consumption of fruits and vegetables and a small increase in exercise or participation in sports activities for at least 20 minutes. 100% of students reported they almost always or always read nutrition labels on packages after participating in CATCH Kids Club for a school year.
- Through the Healthy Wayne coalition, a recognition program began in 2018 to recognize restaurants that provide healthy meals on their menus. Other activities through the coalition to improve health in the community included free yoga and other physical fitness programs offered in the park. A total of 127 community members engaged in park activity programs.
- Beaumont, Wayne sponsored the Wayne Farmers Market and introduced the Power of Produce program for children ages 4-12 along with nutrition information and activities. This program encourages healthy eating with the goal for youth to increase their fruit and vegetable intake. A total of 288 children engaged in the Power of Produce program. ■

Health Professional Shortage Areas (HPSA)[38]

County name	HPSA ID	HPSA name	HPSA discipline class	Designation type
Macomb	X268825786	Low Income-South Macomb Service Area	Primary Care	Low Income Population HPSA
Macomb	X263696236	Macomb Correctional Facility	Primary Care	Correctional Facility
Macomb	X26999268A	Mycare Health Center	Primary Care	Federally Qualified Health Center
Macomb	6262258202	Macomb Correctional Facility	Dental Health	Correctional Facility
Macomb	626999262U	Mycare Health Center	Dental Health	Federally Qualified Health Center
Macomb	726788X227	Low Income-South Macomb Service Area	Mental Health	Low Income Population HPSA
Macomb	7269992628	Mycare Health Center	Mental Health	Federally Qualified Health Center
Oakland	X26356432X	Low Income-Oak Park Service Area	Primary Care	Low Income Population HPSA
Oakland	X264463200	Low Income-Pontiac Service Area	Primary Care	Low Income Population HPSA
Oakland	X2699926PV	Oakland Integrated Health Network	Primary Care	Federally Qualified Health Center
Oakland	62699926MA	Oakland Integrated Health Network	Dental Health	Federally Qualified Health Center
Oakland	726X6577X6	Low Income-Pontiac Service Area	Mental Health	Low Income Population HPSA
Oakland	7266075403	Low Income-Southeast Oakland	Mental Health	Low Income Population HPSA
Oakland	72699926CB	Oakland Integrated Health Network	Mental Health	Federally Qualified Health Center
Wayne	X26287X420	Eastside Detroit Service Area	Primary Care	High Needs Geographic HPSA
Wayne	X2647222X7	Inkster	Primary Care	High Needs Geographic HPSA
Wayne	X26X582867	North Central Detroit/Highland Park	Primary Care	High Needs Geographic HPSA
Wayne	X264477200	Northwest Detroit Service Area	Primary Care	High Needs Geographic HPSA
Wayne	X263948863	Southwest Detroit Service Area	Primary Care	High Needs Geographic HPSA
Wayne	X268567X86	Low Income-Cornerstone Village/Harper Woods Service Area	Primary Care	Low Income Population HPSA
Wayne	X262330956	Low Income-Downtown Detroit/Hamtramck Service Area	Primary Care	Low Income Population HPSA
Wayne	X26356432X	Low Income-Oak Park Service Area	Primary Care	Low Income Population HPSA
Wayne	X26X42846X	Low Income-Redford/Dearborn/Taylor Service Area	Primary Care	Low Income Population HPSA
Wayne	X269X25352	Low Income-City of Wayne	Primary Care	Low Income Population HPSA
Wayne	X2699926PT	Charter County of Wayne	Primary Care	Federally Qualified Health Center
Wayne	X26999264M	Community Health and Social Services	Primary Care	Federally Qualified Health Center
Wayne	X2699926F9	Covenant Community Care, Inc.	Primary Care	Federally Qualified Health Center
Wayne	X26999267W	Detroit Central City Community Mental Health, Inc.	Primary Care	Federally Qualified Health Center
Wayne	X26999263M	Detroit Community Health Connection	Primary Care	Federally Qualified Health Center

County name	HPSA ID	HPSA name	HPSA discipline class	Designation type
Wayne	X26999264C	Detroit Health Care for the Homeless	Primary Care	Federally Qualified Health Center
Wayne	X2699926PL	The Wellness Plan	Primary Care	Federally Qualified Health Center
Wayne	X26999265A	Western Wayne Family Health Center	Primary Care	Federally Qualified Health Center
Wayne	X26999264X	Health Centers Detroit Foundation	Primary Care	Federally Qualified Health Center Look-alike
Wayne	X2699926PF	American Indian Health and Family Svs of Southeast MI	Primary Care	Native American/Tribal Facility/Population
Wayne	626339999X	Ecorse City Service Area	Dental Health	High Needs Geographic HPSA
Wayne	6268203606	Low Income - River Rouge City	Dental Health	Low Income Population HPSA
Wayne	6268959494	Low Income - Southwest Detroit	Dental Health	Low Income Population HPSA
Wayne	626X766507	Low Income-Northeast Detroit Service Area	Dental Health	Low Income Population HPSA
Wayne	6264805600	Low Income-Northwest Detroit Service Area	Dental Health	Low Income Population HPSA
Wayne	62678405X8	Low Income-Southeast Detroit Service Area	Dental Health	Low Income Population HPSA
Wayne	62699926M8	Charter County of Wayne	Dental Health	Federally Qualified Health Center
Wayne	62699926C2	Community Health and Social Services	Dental Health	Federally Qualified Health Center
Wayne	62699926G2	Covenant Community Care, Inc.	Dental Health	Federally Qualified Health Center
Wayne	626999262O	Detroit Central City Community Mental Health, Inc.	Dental Health	Federally Qualified Health Center
Wayne	62699926AX	Detroit Community Health Connection	Dental Health	Federally Qualified Health Center
Wayne	62699926B4	Detroit Health Care for the Homeless	Dental Health	Federally Qualified Health Center
Wayne	62699926M2	The Wellness Plan	Dental Health	Federally Qualified Health Center
Wayne	62699926E5	Western Wayne Family Health Center	Dental Health	Federally Qualified Health Center
Wayne	62699926G6	Health Centers Detroit Foundation, Inc.	Dental Health	Federally Qualified Health Center Look-alike
Wayne	62699926LZ	American Indian Health and Family Svs of Southeast MI	Dental Health	Native American/Tribal Facility/Population
Wayne	7262909672	Romulus Service Area	Mental Health	Geographic HPSA
Wayne	7269X07377	Dearborn Service Area	Mental Health	High Needs Geographic HPSA
Wayne	7268708589	East Detroit Service Area	Mental Health	High Needs Geographic HPSA
Wayne	7269895X04	Hamtramck Service Area	Mental Health	High Needs Geographic HPSA
Wayne	7268404X86	Inkster Service Area	Mental Health	High Needs Geographic HPSA
Wayne	7268708674	Northwest Detroit	Mental Health	High Needs Geographic HPSA
Wayne	72644480X0	South Detroit Service Area	Mental Health	High Needs Geographic HPSA
Wayne	7266X08062	Low Income-Lincoln Park Service Area	Mental Health	Low Income Population HPSA

County name	HPSA ID	HPSA name	HPSA discipline class	Designation type
Wayne	7266075403	Low Income-Southeast Oakland	Mental Health	Low Income Population HPSA
Wayne	7267204009	Low Income-Wayne City	Mental Health	Low Income Population HPSA
Wayne	72699926C9	Charter County of Wayne	Mental Health	Federally Qualified Health Center
Wayne	7269992659	Community Health and Social Services	Mental Health	Federally Qualified Health Center
Wayne	7269992686	Covenant Community Care, Inc.	Mental Health	Federally Qualified Health Center
Wayne	72699926XU	Detroit Central City Community Mental Health, Inc.	Mental Health	Federally Qualified Health Center
Wayne	7269992639	Detroit Community Health Connection	Mental Health	Federally Qualified Health Center
Wayne	726999265X	Detroit Health Care for the Homeless	Mental Health	Federally Qualified Health Center
Wayne	72699926CX	The Wellness Plan	Mental Health	Federally Qualified Health Center
Wayne	7269992674	Western Wayne Family Health Center	Mental Health	Federally Qualified Health Center
Wayne	72699926C8	Health Centers Detroit Foundation	Mental Health	Federally Qualified Health Center Look-alike
Wayne	72699926BX	American Indian Health and Family Svs of Southeast MI	Mental Health	Native American/Tribal Facility/Population

[38]*U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018*

Medically Underserved Areas and Populations (MUA/P)[39]

County name	MUA/P source identification number	Service area Nname	Designation type	Rural status
Oakland	0X587	City of Pontiac Service Area	Medically Underserved Area	Non-Rural
Wayne	0X584	Romulus/Taylor Service Area	Medically Underserved Area	Non-Rural
Wayne	0X602	Wayne Service Area	Medically Underserved Area	Non-Rural
Wayne	0X603	Wayne Service Area	Medically Underserved Area	Non-Rural
Wayne	0X604	Wayne Service Area	Medically Underserved Area	Non-Rural
Wayne	0X605	Dearborn Service Area	Medically Underserved Area	Non-Rural
Wayne	06X37	Airport/Conner Service Area	Medically Underserved Area	Non-Rural
Wayne	06X38	Southwest Detroit Service Area	Medically Underserved Area	Non-Rural
Wayne	06X39	Tireman/Chadsey Service Area	Medically Underserved Area	Non-Rural
Wayne	06X40	Mackenzie/ Brooks Service Area	Medically Underserved Area	Non-Rural
Wayne	06X4X	Chene Service Area	Medically Underserved Area	Non-Rural
Wayne	06X42	Wayne Service Area	Medically Underserved Area	Non-Rural

County name	MUA/P source identification number	Service area Nname	Designation type	Rural status
Wayne	0720X	Low Income - Romulus	Medically Underserved Population	Non-Rural
Wayne	07270	Low Income - Brightmoor / Cody	Medically Underserved Population	Non-Rural
Wayne	074X6	Northeast Detroit Service Area	Medically Underserved Area	Non-Rural
Wayne	07763	Low Income - Western Detroit	Medically Underserved Population	Non-Rural
Wayne	07768	Ecorse/Lincoln Park/River Rouge	Medically Underserved Area	Non-Rural
Wayne	0X572	Pershing/Nolan/State Fair/Davison Service Area	Medically Underserved Area	Non-Rural
Wayne	0X573	Eastside Service Area	Medically Underserved Area	Non-Rural
Wayne	0X577	Harmony Village/Grandmont/Cerveny Service Area	Medically Underserved Area	Non-Rural
Wayne	0X578	Inkster City Service Area	Medically Underserved Area	Non-Rural
Macomb	0X595	Macomb Governor Service Area	Medically Underserved Area – Governor's Exception	Non-Rural
Macomb	07773	Center Line Service Area	Medically Underserved Area	Non-Rural

[39]*U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018*

Prioritized Significant Health Needs

Note: Blank county values indicate that the indicator was either not available for that geography or was not a need when compared to the state benchmark.

Health need	Health indicator	Indicator type	COUNTY VALUES					State Benchmark
			Macomb	Oakland	Wayne	Wayne City of Detroit	Wayne Detroit Suburbs	
Cardiovascular Disease	Heart Disease (Percent of Fee-for-Service Medicare)	%	38.7	34.5	35.8			32.4
	Heart Disease Death Rate (1999-2016)	rate per 100k	272.6		307.6			250.9
	Heart Failure (Percent of Fee-for-Service Medicare)	%	19.3	17.5	22.0			17.4
	Hypertension (Percent of Fee-for-Service Medicare)	%	67.8		67.4			61.9
	Heart Disease Death Rate (2015-2017)	rate per 100k			257.4			197.9
	Congestive Heart Failure (Rate of Ambulatory Care Sensitive Hospitalizations)	rate per 10k	32.0		44.4			30.5
	Heart Disease (Hospitalization Discharge Rate)	rate per 10k	127.4		144.4			117.3
	Hypertension, Excluding Hypertensive Heart Disease (Hospitalization Discharge Rate)	rate per 10k	21.4		29.3			15.5
	Heart Disease Age-adjusted Mortality (2017 Top 5 Causes)	rate per 100k	197.2		254.2			195.9
	Heart Attack	%				5.5		4.9
	Angina or Coronary Heart Disease	%	5.4					5.0
	Cardiovascular Disease - All	%				11.4	10.2	9.7
Diabetes	Diabetes Diagnoses, Age 20+	%			11.7			10.5
	Diabetes Prevalence (Percent of Fee-for-Service Medicare)	%	32.0		36.0			29.3
	Diabetes-Related Death Rate (2015-2017)	rate per 100k			71.0			67.5
	Diabetes Diagnoses, Age 20+ (Rate of Ambulatory Care Sensitive Hospitalizations)	rate per 10k	22.9		27.1			19.7
	Diabetes Mellitus (Hospitalization Discharge Rate)	rate per 10k	20.5		34.1			20.4
	Diabetes	%				13.1	11.3	10.8
Obesity	Obesity, Adult	%	32.5		33.1			31.3
	Obesity, Weight Status	%	32.2			37.2	31.5	31.4

Chart continued on next page.

Health need	Health indicator	Indicator type	COUNTY VALUES					State Benchmark
			Macomb	Oakland	Wayne	Wayne City of Detroit	Wayne Detroit Suburbs	
Mental Health	Poor Mental Health Days	days/mo			4.6			4.4
	Frequent Mental Distress	%			14.0			14.0
	Alzheimer's Disease/Dementia - (Percent of Fee-for-Service Medicare)	%	15.2	15.3	16.3			13.6
	Suicide Rate (1999-2017)	rate per 100k	12.2					11.8
	Schizophrenia/Other Psychotic Disorders (Percent of Fee-for-Service Medicare 65+)	%	2.4	2.7	2.8			2.0
	Suicide/Intentional Self-Harm Death Rate (2015-2017)	rate per 100k	13.9					13.6
	Affective Mood Disorders Discharge Rate	rate per 10k	37.3					30.0
	Schizophrenia, Schizotypal & Delusional Disorders Discharge Rate	rate per 10k	12.2		18.1			10.5
	Poor Mental Health on at Least 14 Days in the Past Month	%				18.8	16.8	16.2
	Depression	%				21.1		20.7
	Depression (High School)	%	38.3		41.6			37.3
	Suicide Planned in Last Year (High School)	%			21.4			21.3
Substance Abuse	Drug Overdose Deaths (2014-2016)	rate per 100k	31.7		32.4			20.5
	Drug-Related Deaths (2017)	rate per 100k	45.2		43.1			27.0
	Drug: Non-medical Use of Pain Relievers - Percent of Population Age 12+ Reporting	%	4.4		4.4			4.4
	Drug: Dependence - Percent of Population Age 12+ Reporting	%			3.5			2.7
	Drug Addiction Treatment, Percent Needing but Not Receiving	%	87.6	89.6				86.7
	Drug: Opioid Prescriptions per 100 Persons	rate per 100	86.3		77.4			74.2
	Drug Abuse/Substance Abuse (Percent of Fee-for-Service Medicare 65+)	%	2.5		3.5			2.1
	Cigarette Smoking - Adult (US)	%			20.5			20.4
	Cigarette Smoking - Adult (MI Local Health Department)	%	23.5			32.8	21.9	20.8

Note: Blank county values indicate that the indicator was either not available for that geography or was not a need when compared to the state benchmark.

Health need	Health indicator	Indicator type	COUNTY VALUES					State Benchmark
			Macomb	Oakland	Wayne	Wayne City of Detroit	Wayne Detroit Suburbs	
Cancer	Cancers, All - Incidence	rate per 100k	490.5	478.9	510.6			449.5
	Breast Cancer Incidence	rate per 100k	128.7	139.0	132.4			123.4
	Colon Cancer Incidence	rate per 100k	40.5		46.2			37.7
	Lung Cancer Incidence	rate per 100k	74.2		79.0			65.6
	Prostate Cancer Incidence	rate per 100k	124.4	141.3	154.4			117.6
	Breast Cancer Incidence (Medicare)	rate per 100k	425.9	458.1	462.9			419.0
	Colon Cancer Incidence (Medicare)	rate per 100k	197.5	181.5	218.7			179.0
	Lung Cancer Incidence (Medicare)	rate per 100k	428.6		437.6			366.8
	Cancers, All - Death Rate (1999-2016)	rate per 100k	216.4		213.6			203.2
	Cancer Death Rate (2015-2017)	rate per 100k	171.9		180.5			165.0
	Cancer (Malignant Neoplasms) Discharge Rate	rate per 10k	42.3	38.0	41.5			35.9
	Neoplasms, Benign and Unspecified Nature Discharge Rate	rate per 10k	13.3	12.7	16.2			11.9
	Cancer Age-adjusted Mortality (2017 Top 5 Causes)	rate per 100k	168.7		173.9			161.1
	Prostate Gland (Invasive Cancer Incidence)	rate per 100k		62.3	65.8			54.6
	Lung and Bronchus (Invasive Cancer Incidence)	rate per 100k	72.3		76.7			65.6
	Breast (Invasive Cancer Incidence)	rate per 100k	68.0	74.9	71.9			66.1
	Colon and Rectum (Invasive Cancer Incidence)	rate per 100k	40.4		47.1			39.6
	Other Cancers (Invasive Cancer Incidence)	rate per 100k	249.3	246.6	244.0			232.2
	Cancer (Percent of All Adults)	%		13.1			13.5	12.3
COPD	Chronic Obstructive Pulmonary Disease (Percent of Fee-for-Service Medicare)	%	15.3		17.2			14.1
	Chronic Obstructive Pulmonary Disease (Rate of Ambulatory Care Sensitive Hospitalizations)	rate per 10k	28.3		41.0			26.5
	Chronic Obstructive Pulmonary Disease & Bronchiectasis (Hospitalization Discharge Rate)	rate per 10k			38.7			24.7
	Chronic Obstructive Pulmonary Disease	%	9.7			12.3	8.9	8.5

Note: Blank county values indicate that the indicator was either not available for that geography or was not a need when compared to the state benchmark.

Health need	Health indicator	Indicator type	COUNTY VALUES					State Benchmark
			Macomb	Oakland	Wayne	Wayne City of Detroit	Wayne Detroit Suburbs	
Maternal and Child Health	Birth Weight - Low < 2500 Grams	%	8.5		10.6			8.4
	Births to Mothers with No Diploma or GED	%			17.3			11.0
	Births, Preterm < 37 Weeks	%	10.1		11.1	13.9		9.9
	Births to Mothers with Late or No Prenatal Care (New Birth Certificate)	%			7.0			5.4
	Births to Mothers Who Are Foreign Born	%	18.7	20.9				12.1
	Births Paid by Medicaid	%			57.1	73.1		43.0
	Births to Unmarried Women	%			55.6	81.1		42.4
	Birth Weight - Very Low < 1500 Grams	%	1.8		2.1	3.0		1.5
Physical Activity	Physical Inactivity	%	25.5		25.9			23.2
	No Leisure Time Physical Activity	%	25.2			34.7	25.1	24.9
Access to Care	Preventable Hospital Stays - Discharge Rate per 1000 Medicare Enrollees with Ambulatory Care Sensitive Hopitalizations	rate per 1k	58.9	56.2	68.5			55.4
	Average Length of Stay for Ambulatory Care Sensitive Hospitalizations	days	5.8	6.0	5.7			5.5
	Ambulatory Care Sensitive Hospitalizations (Percent of All Hospitalizations)	%	2310.0	2280.0	2570.0			2160.0
	Ambulatory Care Sensitive Hospitalizations (Rate per 10,000 Population)	rate per 10k	321.6	281.9	411.4			270.8
	Primary Care Physicians per 100,000 Population	rate per 100k	54.8		68.0			79.7
	Population to One Primary Care Physician	/provider	1825.0		1470.0			1254.0
	Population to One Non-Physician Primary Care Provider	/provider	2096.0		1498.0			1165.0
	Health Care Access - No Personal Doctor	%				23.0		15.2
	Diabetic Screening - Medicare	%		84.5	81.8			85.6
	Mammography Screening - Medicare	%	60.4	63.7	58.7			64.4
	Vaccination - Fully Immunized Toddlers, Age 2	%	73.6		69.3	62.4		75.0
	Blood Lead Level - Testing of Children Ages 1-2	%		32.5				40.4
	Blood Lead Level - Testing of Children Ages 1-2 on Medicaid	%	42.6	35.1	42.9			44.1

Note: Blank county values indicate that the indicator was either not available for that geography or was not a need when compared to the state benchmark.

Health need	Health indicator	Indicator type	COUNTY VALUES					State Benchmark
			Macomb	Oakland	Wayne	Wayne City of Detroit	Wayne Detroit Suburbs	
Access to Care	Seatbelt Use	%				85.9		88.9
	Breast Cancer Screening Among Women 40 Years and Older	%	72.0	73.9		73.4	71.9	74.9
	Cervical Cancer Screening Among Women 18 Years and Older	%	69.7				72.1	73.7
	Prostate Cancer Screening Among Men 50 Years and Older	%				34.2		43.4
	Colorectal Cancer Screening Among Adults 50 Years and Older	%		70.4		65.6	69.5	71.0
	No Dental Visits in Past Year- Proportion of Adults	%				49.6		30.7
	Vaccination - Adult Immunizations Age 65 Years and Older	%	54.8			43.9		57.1
	HIV Testing Among Adults Aged 18-64 Years	%		43.8		68.3	42.1	41.0
Asthma	Asthma (Percent of Fee-for-Service Medicare)	%	5.1	5.7	5.8			5.0
	Asthma (Rate of Ambulatory Care Sensitive Hospitalizations)	rate per 10k			12.3			5.9
	Asthma	%				14.7		10.7
Social Isolation	Children in Single-Parent Households	%			47.7			34.3
	Social and Membership Associations	rate per 10k	5.6	7.8	7.1			9.9
	Disconnected Youth Age 16-24	%			21.0			14.4
Air Quality	Daily Particulate Matter Days	units	10.2	10.6	11.5			8.7

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***Appendix C** contains additional information on health indicator sources.*

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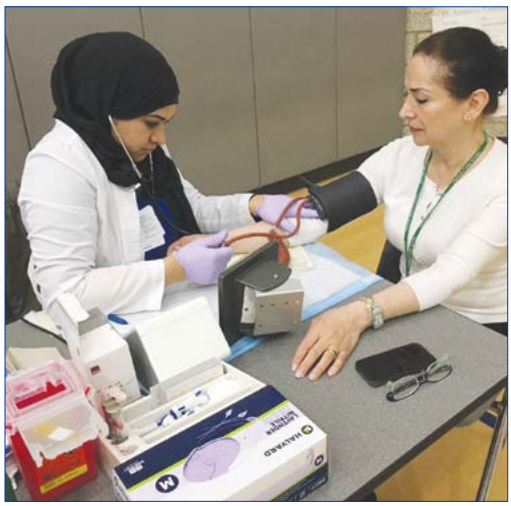

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