

Access to Healthcare and Fitness Locations in Holmes County

Holmes County GHD

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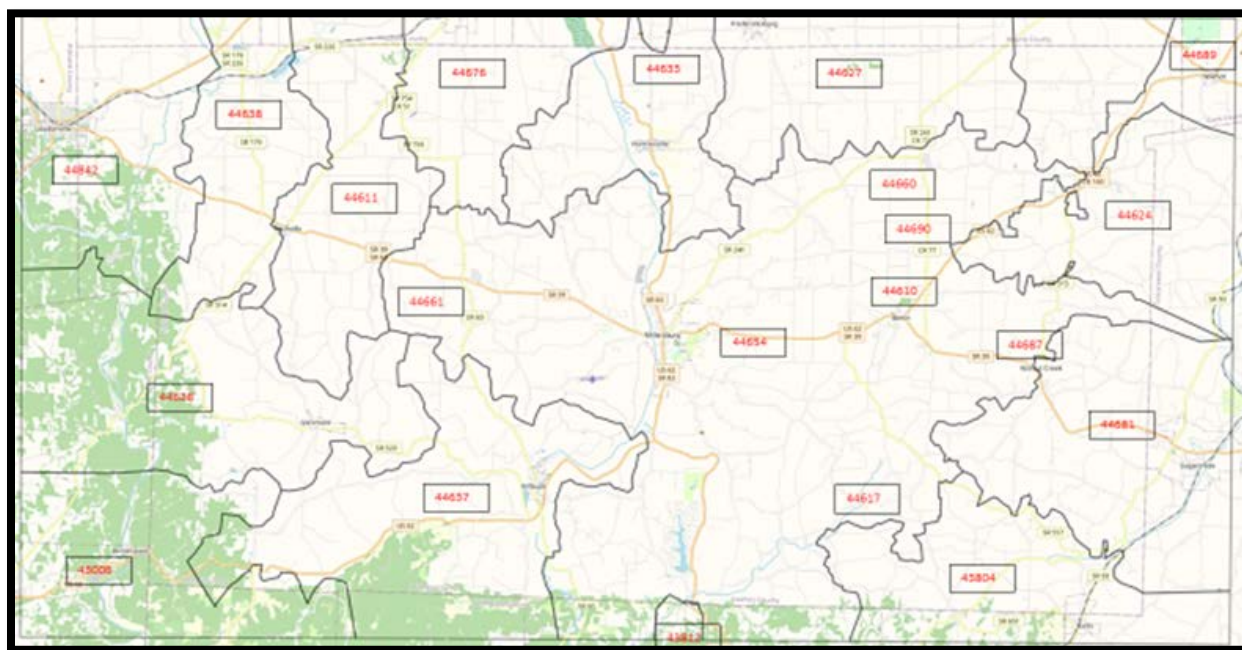


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Executive Summary

Key finding summarized within Access to Care Report:

1. Data recorded within the Access to Care Report suggest that a shortage of primary care providers, mental health providers, and recreational facilities may exist within the zip code region of Glenmont (44628). The data also suggest that many adults residing there lead generally inactive lives, so further measures may be needed to support these residents. Measures to support these residents could include efforts to encourage the addition of primary care providers, mental health providers, and recreational facilities within Glenmont or neighboring zip code regions.
2. Two additional zip code regions within Holmes County also identified areas of need. Specifically, the data for Lakeville (44638) indicate a lack of primary care providers and mental health facilities may exist there, as well as reportedly high rates of adult residents leading physically inactive lives. Similarly, Killbuck (44637) reported a need for both mental health providers and recreational facilities, and the respondents also indicated that many adults there are not physically active. Thus, measures may also need to be implemented within these zip code regions, as well.

BACKGROUND

According to Healthy People 2020, “Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans.” [4]



Patient access to care may be evaluated via the 5 A’s, with each A representing a different aspect of care. The first is **Affordability**, which considers whether a patient can afford the costs associated with their healthcare services. This can occur with the aid of insurance, ‘out of pocket’ payments, or with

the help of churches, non-profits, and other funds available to the public. The next aspect is **Accessibility**, which applies to whether provider locations are readily and easily accessed within the community. The third consideration is **Availability**, which asks if provider services have the resources and capacity to function well within the community. The fourth component is **Accommodation**, which addresses whether the provider is operating in a manner that meets the needs of their patients. Finally, **Acceptability** is the final consideration, and this applies to whether patients are comfortable with the characteristics of their provider. [2]

To identify if and where access to care concerns may exist within Holmes County, the Holmes County General Health District (HCGHD) reviewed the findings from their 2020 Community Health Needs Assessment (CHNA) and discussed these with stakeholders across Holmes County. Based on the feedback

from stakeholders, as well as survey responses from the 2020 CHNA, the HCGHD decided to examine both geography and accessibility of primary care providers (PCP), counselors, dentists, and athletic opportunities available within Holmes County. More specifically, answers to the following questions were sought:

1. Do residents within Holmes County have access to care with regards to the quantity of Primary Care Providers, Counselors, and Dentists working within zip code regions in Holmes County. If so, how many providers are available and where are they located?
2. Do residents within Holmes County have access to athletic opportunities, gyms, parks, and trails in zip code regions in Holmes County. If so, how many of each are available within or near Holmes County and where are they located?

METHODS

To answer these questions, a four-phase process occurred to comprehensively analyze population's healthcare and athletic facility distributions across Holmes County. These efforts help to identify current gaps and/or deficiencies in services that may exist throughout the county. We begin with a brief overview of Holmes County.

The first phase began with acquiring and categorizing demographic and geographic data on Holmes County. This information was largely drawn from the United States Census Bureau, the Ohio State Department of Research, and Holmes County Transportation Department. Data was taken from these sources to provide an understanding of the population and geographic terrain within Holmes County.

Second, a review of the 2020 Holmes County CHNA was performed. Previously analyzed data from the CHNA were used to produce bar graphs reflecting the response percentages from each specific zip code region within Holmes County. These graphs identify response rates within zip code regions for



healthcare needs, such mental health providers, primary healthcare providers, recreational and athletic facilities, and those who self-identify as not being physically active. From these graphs, choropleth maps of Holmes County were produced to highlight ‘yes’ response rates based on zip code regions, which are provided in Appendices A, B, and C.

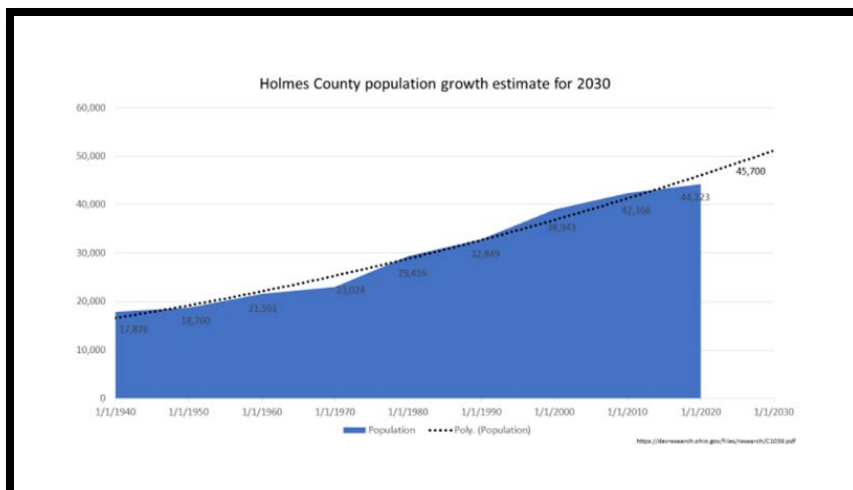
Thirdly, an extensive search was conducted using Google Search and Google Maps to identify primary care providers, dentists, gyms, parks, and trails near or within Holmes County. Additionally, due to their service specificity, a more detailed search was performed for available medical doctors, dentists, and counselors within each zip code region. This effort resulted in a database containing the names and addresses of all current providers operating within the county, as well as the latitudinal and longitudinal coordinates of their offices.

Fourth, collaboration with Mr. Erik Parker, the GIS Mapping Director for Holmes County, resulted in the acquisition of GIS shapefiles containing some additional information on county PCPs, dentists, counselors, gyms, parks, and trails. This information was reviewed and compared against the previously assembled lists of providers and sites. From these consolidated lists, Mr. Parker then created two maps, which are used within this report. One map identifies PCPs, counselors, and dentists, while the second map identifies gyms, parks, and trails in or near Holmes County. Both maps are provided in Appendix D.

Finally, once all the data from all four sources were consolidated and analyzed, conclusions could finally be drawn. Zip code regions with the highest reported response rates for each category were initially identified and compared. Additionally, a geographic review of population densities and service locations informed these conclusions.



Sugarcreek (44681) and Fredericksburg (44627) [5]. Additionally, the population growth graph suggests a continued growth in the county's population through 2030 [1,3]. Lastly, the median household income in Holmes County is currently assessed as \$64,453 [5].



LAND USE/COVERAGE

Land Use Chart	Percent
Developed, Lower Intensity (Rural Communities)	6.11%
Developed, High Intensity (High Density Urban Development)	0.61%
Barren (strip mines, gravel pits, ect.)	0.08%
Forest	39.88%
Grasslands or Scrub	0.36%
Pasture/Hay	38.64%
Cultivated Crops	12.83%
Wetlands	1.10%
Open Water	0.38%

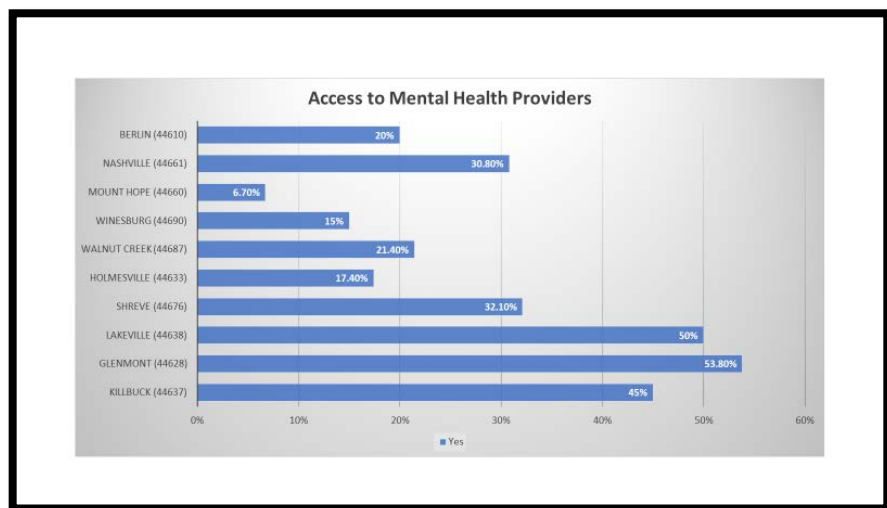
Holmes County is comprised of 422.53 square miles, with a population density averaging 100.3 individuals per square mile [5]. The terrain includes low and high intensity development, barren regions,

forests, grasslands or scrubs, pastures, cultivated crops, wetlands, and open water regions. The data on land use and coverage indicate that most of the county is either used for agricultural purposes or is undeveloped. Additionally, since high intensity regions only cover 0.61% of the land space within Holmes County, travel is essential for residents to attain healthcare services. However, the land chart also demonstrates the potential abundance of outdoor recreational locations, such as trails and parks [1].

FINDINGS FROM 2020 CHNA

A CHNA was completed for Holmes County in 2020. A total of 385 individuals responded to the survey that year, and the survey results were compiled by a third party. For this analysis, zip code regions with 10 or fewer survey responses were excluded due to the high statistical uncertainty associated with such low numbers. These included the zip code regions of Brinkhaven (43006), Big Prairie (44611), Fredericksburg (44627), Wilmot (44689), Dundee (44624), Baltic (43804), and Coshocton (43812). The following zip code regions provided 10 or more responses to the survey and were, therefore, included in this analysis: Millersburg (44654), Berlin (44610), Nashville (44661), Mount Hope (44660), Winesburg (44690), Walnut Creek (44687), Sugarcreek (44687), Holmesville (44633), Shreve (44676), Lakeville (44638), Loudonville (44842), Glenmont (44628), and Killbuck (44637).

First, data under the 'Access to mental health providers' column were considered. A total of 104 out of 385 respondents, or 27%, indicated there was a need for greater access to



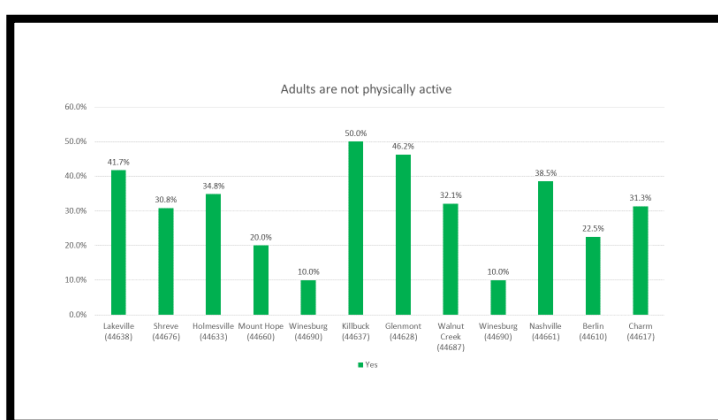
mental health providers within Holmes County. This number was further broken down by the percent of respondents who identified a need for access to mental health care providers within zip code regions. The highest response percentages include Glenmont (44628) with 53.8%, Lakeville (44638) with 50%, and Killbuck (44637) with 45%.

Next, a total of 55 individuals, or 14%, of survey respondents identified a need for PCPs within Holmes County. This number was further analyzed by individual zip code regions. The following zip codes

provided the highest percentage response rates for zip code regions within Holmes County: Glenmont (44628) with 46.2%, Lakeville (44636) with 41.7%, and Nashville (44661) with 23.1%.

Next, 70 individuals, or 18%, of survey respondents identified a lack of recreational and fitness facilities within Holmes County. This number was further broken down by individual zip code to identify those regions with the highest percentage of responses. These included Glenmont (44628) with 38.5%, Shreve (44676) with 30.8%, and Killbuck (44637) with 20%.

Finally, a total of 130, or 34%, of respondents to the survey identified 'Adults that are not physically active' within Holmes County. This number was further broken down into zip codes regions. The zip codes with the highest percentage response rates include,



Killbuck (44637) with 50%, Glenmont (44628) with 46.2%, and Lakeville (44638) with 41.7%. See Appendix A, B, and C.

Google Search-Healthcare



Within Holmes County, there are a total of 23 PCPs, which represents a 1,923:1 patient to provider ratio. These include 9 Medical Doctors (MD), 3 nurse practitioners (NP), 4 physician assistance (PA), 1 Doctor of Osteopathic Medicine (DO), and 6 individuals with unknown degrees that are classified as PCPs. Several providers work at more than one location, rotating between clinics based on patient needs. All 23 providers within the county work at one of the following locations: Babb's Family Practice, East Holmes Family Care, Holmes Family Medicine, Nashville Medical Clinic, Pomerene Family Care, and the Millersburg Clinic. PCP providers are available within the following zip code regions: Millersburg (44654) has 12 providers with a population of 3,151, Berlin (44610) has 6 providers with a population of 1,447, Loudonville (44842) has 1 provider with a population of 2,786, Walnut Creek (44687) has 9 providers with a population of 908, Dundee (44624) has 6 providers with a population of 269, Baltic (43804) has 5 providers with a population of 851, Winesburg (44690) with 2 providers with a population of 340, and finally, Nashville (44661) with 1 provider with a population of 183. However, the following zip codes within

Holmes County do not have PCPs available within their zip code regions: Killbuck (44637) with a population of 810, Gann/Brinkhaven (43006) with a population of 114, Glenmont (44628) with a population of 240, Shreve (44676) with a population of 1,497, Holmesville (44633) with a population of 371, Fredericksburg (44627) with a population of 409, Wilmot (44689) with a population of 282, Sugarcreek (44681) with a population 2,373, Mount Hope (44660) with a population of 197, and Lakeville (44638), Big Prairie (44611), Charm (44617), and Coshocton (438120) all of which do not have a population count available through the United States Census Bureau.

Next, within Holmes County there are 13 locations that offer counseling services, with at least 20 counselors available to residents, or a 2,211:1 patient to mental health provider ratio. Counselors are in four zip code locations within Holmes County, which include Millersburg (44654), Sugarcreek (44681), Fredericksburg (44627), and Berlin (44610). In Millersburg (44654) there are five counseling locations, which include Family Life Counseling and Psychiatric Services, Counseling Center, Freedom Hills Ministry, One Eighty, and Journey Hope Ministries. In Sugarcreek (44681) there are three counseling locations, which include Alpine Family Medicine, Sugarcreek Medical, and New Beginnings Counseling. Next, in Fredericksburg (44627) there is one counseling business, which is called Christ Based Addiction Counseling. Finally, in Berlin (44610), there are three counseling businesses, which include Kathleen Fox, Family Care Counseling Center, and Aporia Counseling and Psychotherapy.

Finally, Holmes County has a population to dentist ratio of 4,422: 1. There are a total of ten dentists working in Holmes County, and six dentist offices are located in Millersburg (44654). These include Dr. Win, Dr. Welsh, Dr. Hoecker, Dr. Rabar, Dr. Stuhlmiller, and Dr. Dunn. Three dentists also work in Berlin (44610), and these include Dr. Sebert-Reese, Dr. Yoder, and Dr. Stutzman. Finally, there is one dentist located in Killbuck (44637), which is Dr Pratt.



Google Search-Recreational Opportunities



Holmes County offers a total of 5 gyms, which are in only two zip code regions, Millersburg (44654) and Shreve (44676). There are 4 gyms located in Millersburg (44654), which include Pomerene Kinetic Fitness for Life, 9:24 CrossFit, Millersburg CrossFit, and Raw Iron Fitness. Additionally, there is one gym located in Shreve (44676), which is called Epic Fitness.

Next, there are a total of 26 parks located throughout Holmes County. These include both City and State Parks and are located within 9 separate zip code regions. First, within Millersburg (44654), there are a total of 9 parks, which include Clay Street Park, Deer Run Park, Old Airport Park, Doughty Pavilion, Miller field, Owen's Field, Lower Killbuck Creek Wildlife Area, Troyer's Field, and Hipp Station. Next, there is one park in Shreve (44676), which is called the Shreve Village Park. There is one park in Fredericksburg (44627) which is the Fredericksburg Community Park. There is one park located in Dundee (44624), which is called the Pinebush Amish Park. In Glenmont (44628), there are three parks, which include City Park,

Glenmont Village Park, and Greer Landing. Next, in Loudonville (44842), there are three parks, which include Riverside Park, Loudonville Recreational Department, and Central Park. Next, in Sugarcreek (44681), there is one park called Cherry Ridge Park. In Big Prairie (44611), there is one park called Lake Park. Finally, in Berlin (44610), there are two parks, which include Berlin Township Park and Park.

There are a total of 17 hiking trails available to residents throughout Holmes County. Trail locations are identified by city access points and are available within 12 zip code locations in Holmes County. First, Millersburg (44654) contains 2 trail access points, which include Holmes County Trail and the trails behind the Holmes County Open Air Art Museum. Next, in Shreve (44676), there is one trail, the Killbush Marsh Wildlife Area. In Fredericksburg (44627), there is one trail, which is an access point to the Holmes County Trail. In Dundee (44624), there are two trails, which include the Dundee Falls Trailhead and Beach City Wildlife Area. Next, in Glenmont (44628), there is one trail, which is an access point to the Holmes County Trail. In Brinkhaven (43006), there are two trails, which include an access to the Holmes County Trail and the Mohican Valley Trail. In Loudonville (44842), there are two trails, which include the trails at the Mohican State Park and Wolf Creek Grist Mill. In Killbuck (44637), there is one trail, which is an access point to the Holmes County Trail. In Big Prairie (44611), there are two trails, which include Whispering Hills Jelly Park and Brown's Lake Bog. Finally, in Wilmot (44689), there is one trail which is located at the Wilderness Center. See Appendix D.

CONCLUSION

A comparison of the 2020 CHNA data and the geographic distribution of services demonstrate that certain zip code regions lack healthcare and/or recreational facilities. Firstly, of all the zip code regions considered in the study, Glenmont (44628) reported the highest need and response rates for additional mental health providers (53.8%), primary care providers (46.2%), and recreational facilities



(38.5%). Additionally, Glenmont also returned the second highest response rate for 'Adults are not physically active,' at 46.2%. Geographic analysis indicates that the Glenmont region lacks mental health, primary care, and dental providers, which serves to substantiate the survey data. Glenmont also lacks gyms; however, residents do have access to three parks and one walking trail. Travel time between Glenmont and Millersburg is approximately 21 minutes by vehicle each way, thus residents traveling to and from a doctor in Millersburg must commute 42 minutes to receive care. Based on this analysis, further measures are needed to support the Glenmont (44628) zip code region.

Next, the Lakeville (44638) region reported the second highest response rate for a need for mental health facilities (50%) and primary care providers (41.7%). Additionally, Lakeville had the third highest response rate for individuals claiming that 'Adults are not physically Active' at 41.7%. A locational analysis of Holmes County healthcare facilities indicates that no mental health providers, primary care providers, and dental facilities are located within the Lakeville zip code region, so residents must travel 22 minutes each way, or a total of 44 minutes, to receive healthcare services in Millersburg; however, Nashville, a neighboring zip code region, does offer one PCP. Consequently, further measures to support or encourage additional PCP or mental health providers to serve in the Lakeville region may improve resident access to care. With regards to recreational locations, Lakeville does not offer any gyms, parks, or trails. Thus, the development of outdoor recreational sites within this region could benefit the residents of Lakeville by making their local area more accessible and supportive of exercise and healthy living. However, if such locations cannot be developed due to funding challenges, further development and expansion of existing trails and parks in the neighboring zip code regions in Loudonville (44842) or Big Prairie (44611) may provide a good alternative.

Third, the Killbuck (44637) zip code region provided the third highest response rate for a need for mental health providers (45%) and for a need in recreational facilities (20%). Additionally, Killbuck reported the highest response rate for 'Adults are not physically active,' at 50%. Geographic data on the



Killbuck zip code region show that no primary care providers or mental health facilities exist; however, the region does currently offer one dentist (Dr. Timothy Pratt). Consequently, Killbuck residents must travel 12 minutes each way, or at least 24 minutes total, to visit a PCP or mental health provider in Millersburg. Next, with regards to recreational facilities, residents of Killbuck have access to only one park. No gyms exist in Killbuck; however, residents may access several parks and walking trails in the neighboring zip code regions of Brinkhaven (43006) and Millersburg (44654).

In conclusion, this analysis combines the 2020 CHNA survey response data with geolocational data on both healthcare and athletic facilities available to the public, by zip code region. The resulting analysis provides a general understanding of likely access to care challenges that exist within Holmes County; however, further data may be required to provide a more detailed assessment of specific population healthcare concerns within Holmes County. Specifically, the 2020 CHNA survey received only 385 responses out of the 44,223 residents within Holmes County, which represents less than 1% (0.87%) of the total population, which means the resulting conclusions may be incorrect. Additionally, the number of survey responses from many of the regions were <20, so only very small fractions of the population within these regions were surveyed. Consequently, increased survey responses are necessary to improve future analyses and resulting conclusions regarding population healthcare concerns. Furthermore, several regions were omitted from the survey due to low survey responses, including Brinkhaven (43006), Big Prairie (44611), Fredericksburg (44627), Wilmot (44689), Dundee (44624), Baltic (43804), and Coshocton (43812). Future access to care surveys should focus on including residents from all zip code regions within Holmes County, and the target survey population should be increased to gain a deeper and a more accurate representation of survey respondent opinions in each area.

References

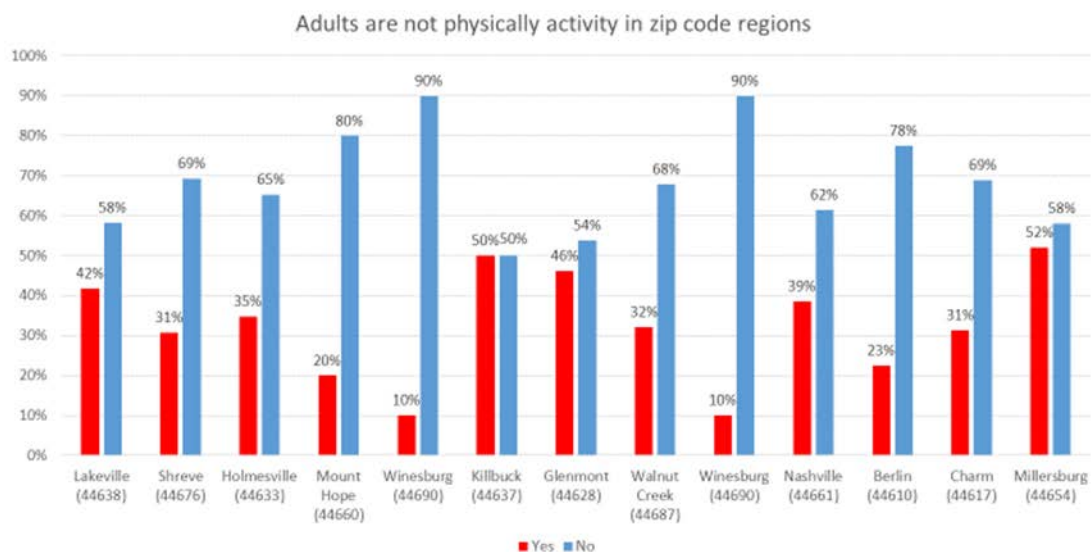
- [1] Department of Development. (2021). Retrieved from <https://devresearch.ohio.gov/files/research/C1039.pdf>.
- [2] Georgia Tech. (n.d.). Access. Retrieved from <https://www.healthanalytics.gatech.edu/focus-area/access>.
- [3] Holmes County Coordinated Public Transit/Human Services Transportation Plan. (2018). Retrieved from <https://omegadistrict.org/wp-content/uploads/2019/02/HOLMES-Coordinated-Transportation-Plan-2018.pdf>.
- [4] Office of Disease Prevention and Health Promotion. (February 6, 2022). Access to Health Services. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>.
- [5] United States Census Bureau. (2021, November 18). Retrieved from <https://www.census.gov/>.
- [6] Holmes County 2020 Community Health Assessment Survey Results (2020).

Appendix A

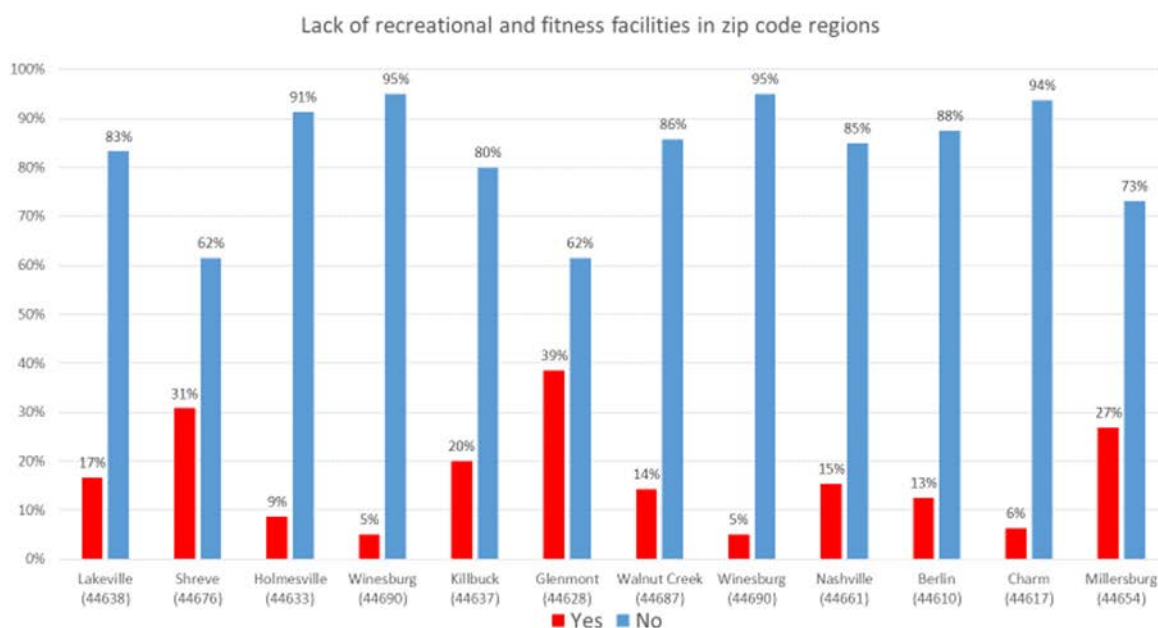
	Total counts	Identify in two resident locations 1	Total count plus counts for residents who identified as residents of two locations	Total number of individuals who responded within each zip code region	Percent of residence for each zip code location that said, 'Adults that are not physically active'
44654 Millersburg	50		50	119	42%
44637 Killbuck	10		10	20	50%
43006 Brinkhaven	0		0	2	0%
44628 Glenmont	5	1	6	13	46%
44842 Loudonville	2		2	10	20%
44638 Lakeville	5		5	12	42%
44611 Big Prairie	1		1	7	14%
44676 Shreve	4		4	13	31%
44633 Holmesville	8		8	23	35%
44627 Fredericksburg	6		6	8	75%
44689 Wilmot	1		1	3	33%
44624 Dundee	0		0	2	0%
44681 Sugarcreek	2		2	10	20%
43804 Baltic	2		2	6	33%
43812 Coshocton	0		0	0	0%
44687 Walnut Creek	9		9	28	32%
44690 Wineburg	2		2	20	10%
44660 Mount Hope	3		3	15	20%
44661 Nashville	4	1	5	13	38%
44617 Charm	5		5	16	31%
44610 Berlin	9		9	40	23%
	Total Counts	Identified with two resident locations 1	Total count plus residents who identified as residents of two locations	Total number of residents who answered survey based on zip code region	Percent of residents for each zip code region who said there was a 'Lack of recreational and fitness facility access'
44654 Millersburg	32		32	119	27%
44637 Killbuck	4		4	20	20%
43006 Brinkhaven	0		0	2	0%
44628 Glenmont	4	1	5	13	38%
44842 Loudonville	1		1	10	10%
44638 Lakeville	2		2	12	17%
44611 Big Prairie	1		1	7	14%
44676 Shreve	4		4	13	31%
44633 Holmesville	2		2	23	9%
44627 Fredericksburg	3		3	8	38%
44689 Wilmot	0		0	3	0%
44624 Dundee	0		0	2	0%
44681 Sugarcreek	1		1	10	10%
43804 Baltic	0		0	6	0%
43812 Coshocton	0		0	0	0%
44687 Walnut Creek	4		4	28	14%
44690 Wineburg	1		1	20	5%
44660 Mount Hope	0		0	15	0%
44661 Nashville	1	1	2	13	15%
44617 Charm	1		1	16	6%
44610 Berlin	5		5	40	13%
	Total Counts	Identified with two resident locations 1 person	Total count plus residents who identified as residents of two locations	Total number of residents who answered survey based on zip code region	Percent of resident population for each zip code region who identified there was lack in 'Access to mental health providers'
44654 Millersburg	42		42	119	35%
44637 Killbuck	9		9	20	45%
43006 Brinkhaven	0		0	2	0%
44628 Glenmont	6	1	7	13	54%
44842 Loudonville	3		3	10	30%
44638 Lakeville	6		6	12	50%
44611 Big Prairie	1		1	7	14%
44676 Shreve	3		3	13	23%
44633 Holmesville	4		4	23	17%
44627 Fredericksburg	3		3	8	38%
44689 Wilmot	0		0	3	0%
44624 Dundee	0		0	2	0%
44681 Sugarcreek	1		1	10	10%
43804 Baltic	2		2	6	33%
43812 Coshocton	0		0	0	0%
44687 Walnut Creek	6		6	28	21%
44690 Wineburg	3		3	20	15%
44660 Mount Hope	1		1	15	7%
44661 Nashville	3	1	4	13	31%
44617 Charm	0		0	16	0%
44610 Berlin	8		8	40	20%
	Totals	Identified with two residents locations 1	Total count plus residents who identified as residents of two locations	Total number of residents who answered survey based on zip code region	Percent of resident population for each zip code region who identified a need for 'Access to a primary care physician'
44654 Millersburg	21		21	119	18%
44637 Killbuck	3		3	20	15%
43006 Brinkhaven	0		0	2	0%
44628 Glenmont	5	1	6	13	46%
44842 Loudonville	2		2	10	20%
44638 Lakeville	5		5	12	42%
44611 Big Prairie	1		1	7	14%
44676 Shreve	1		1	13	8%
44633 Holmesville	3		3	23	13%
44627 Fredericksburg	1		1	8	13%
44689 Wilmot	0		0	3	0%
44624 Dundee	0		0	2	0%
44681 Sugarcreek	0		0	10	0%
43804 Baltic	0		0	6	0%
43812 Coshocton	0		0	0	0%
44687 Walnut Creek	2		2	28	7%
44690 Wineburg	1		1	20	5%
44660 Mount Hope	1		1	15	7%
44661 Nashville	2	1	3	13	23%
44617 Charm	1		1	16	6%
44610 Berlin	2		2	40	5%

Appendix B

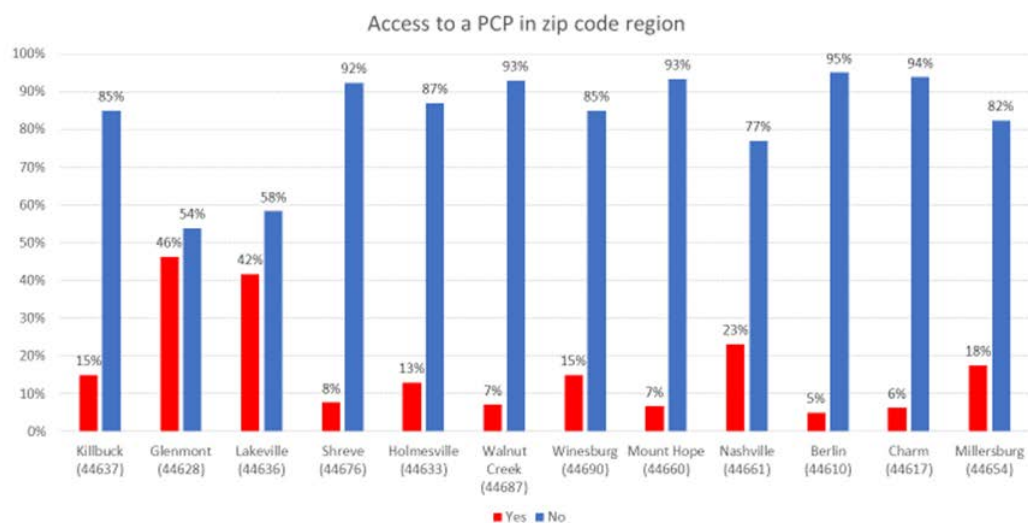
1. Adults are not physically active



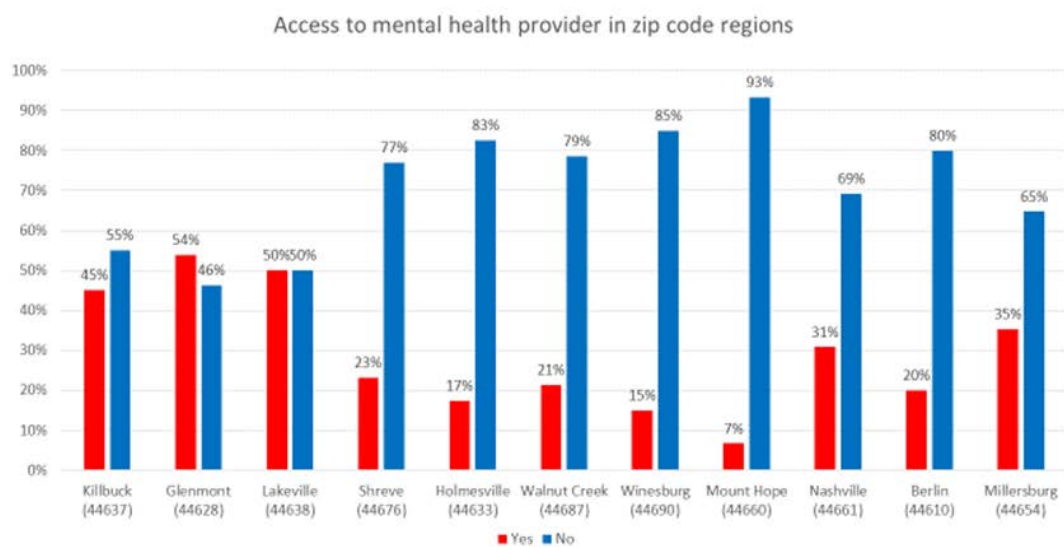
2. Lack of recreational and fitness locations



3. Access to a PCP in zip code region

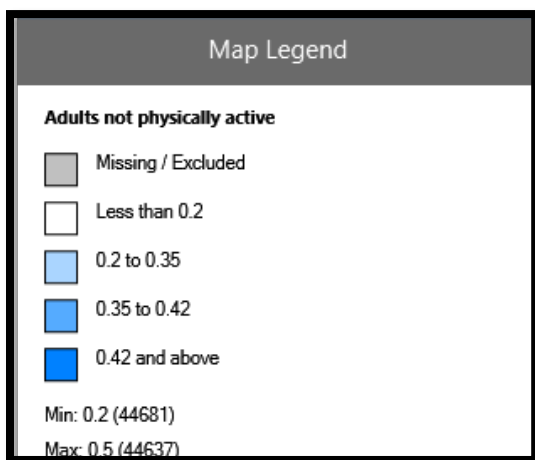
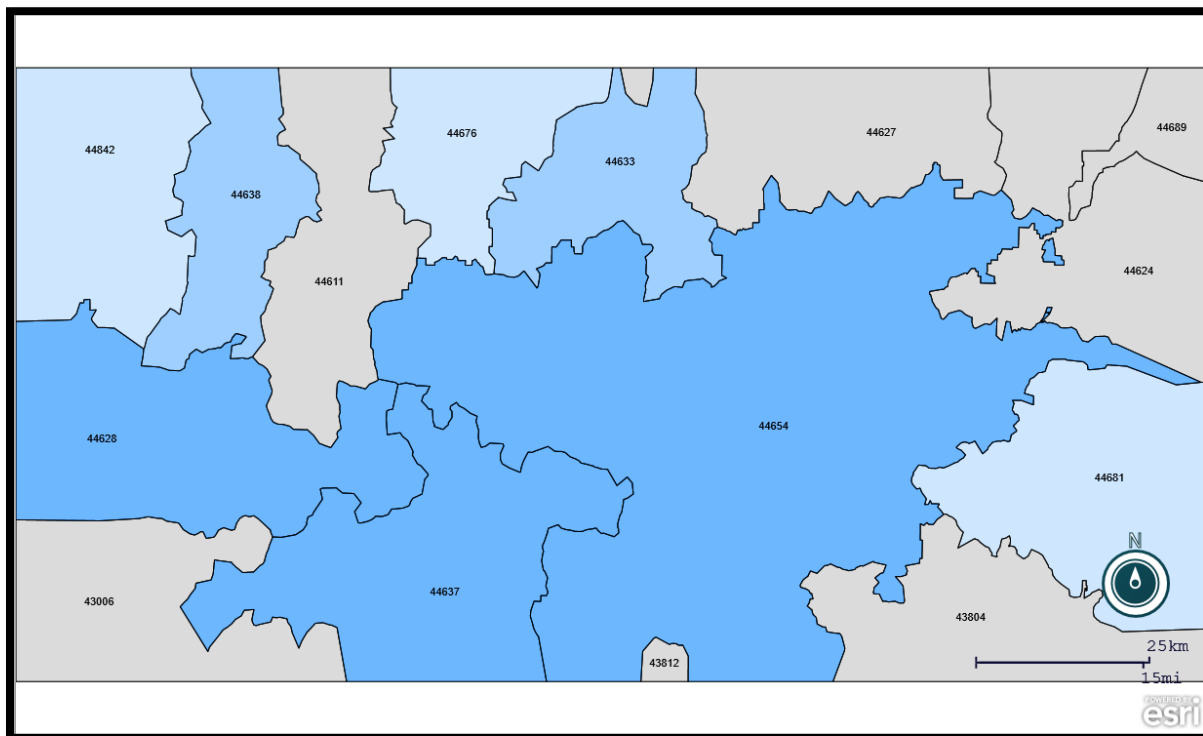


4. Access to a mental health provider in zip code region

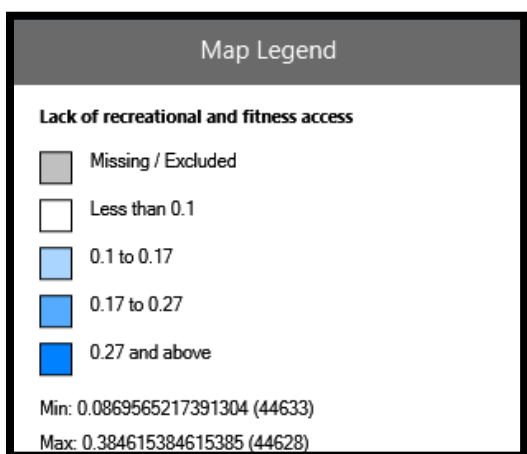
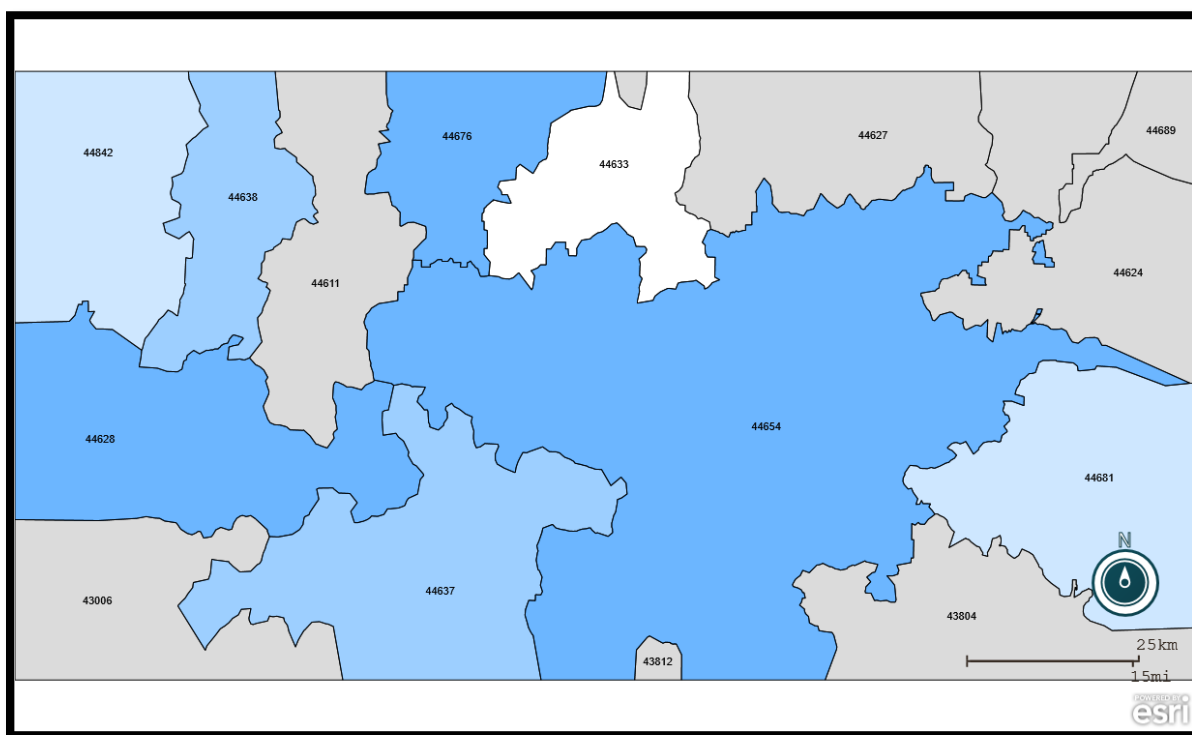


Appendix C

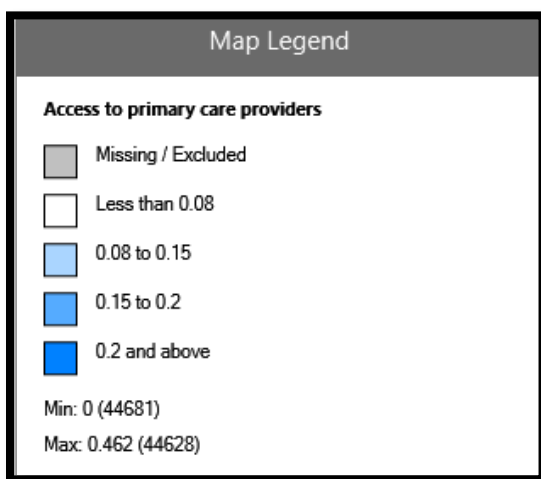
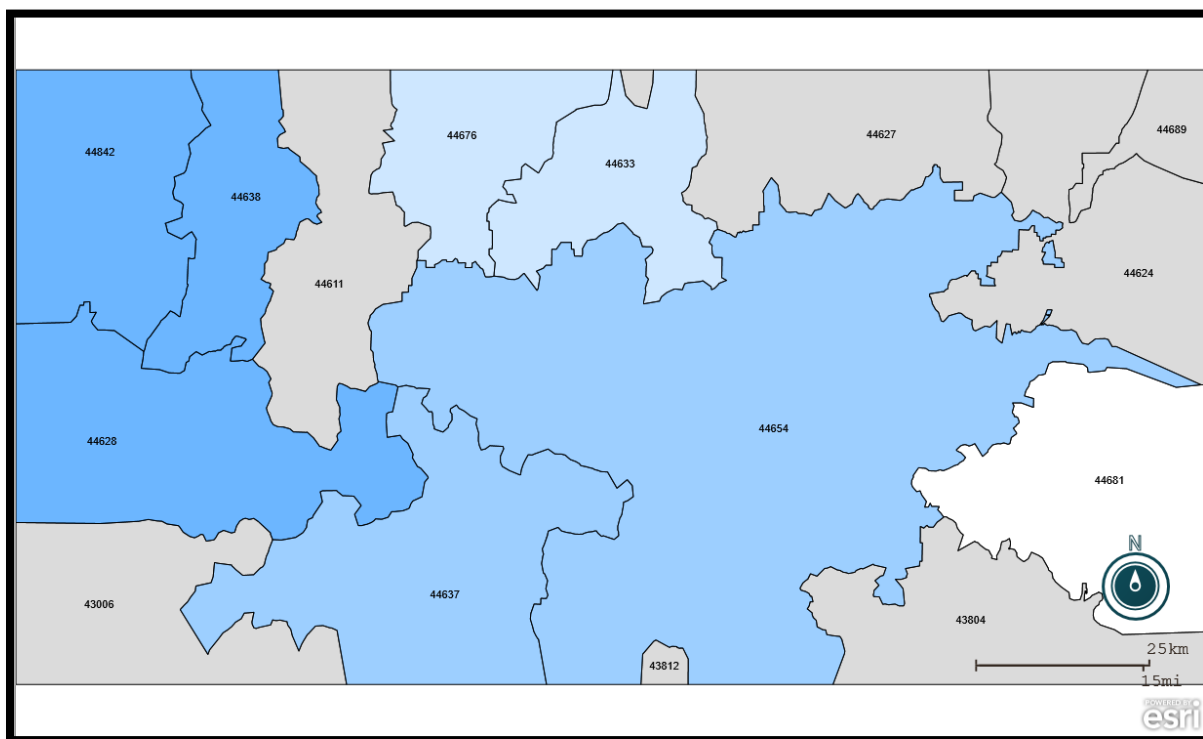
1. Adults not physically active



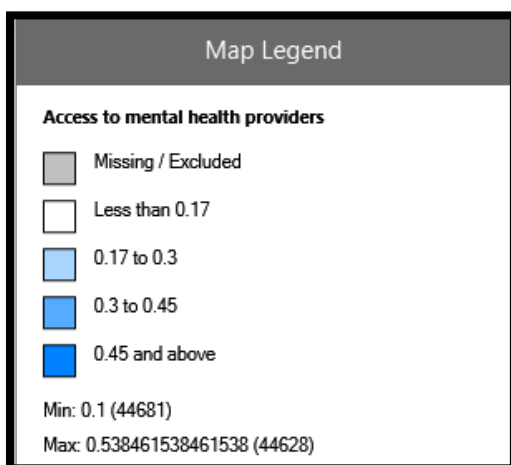
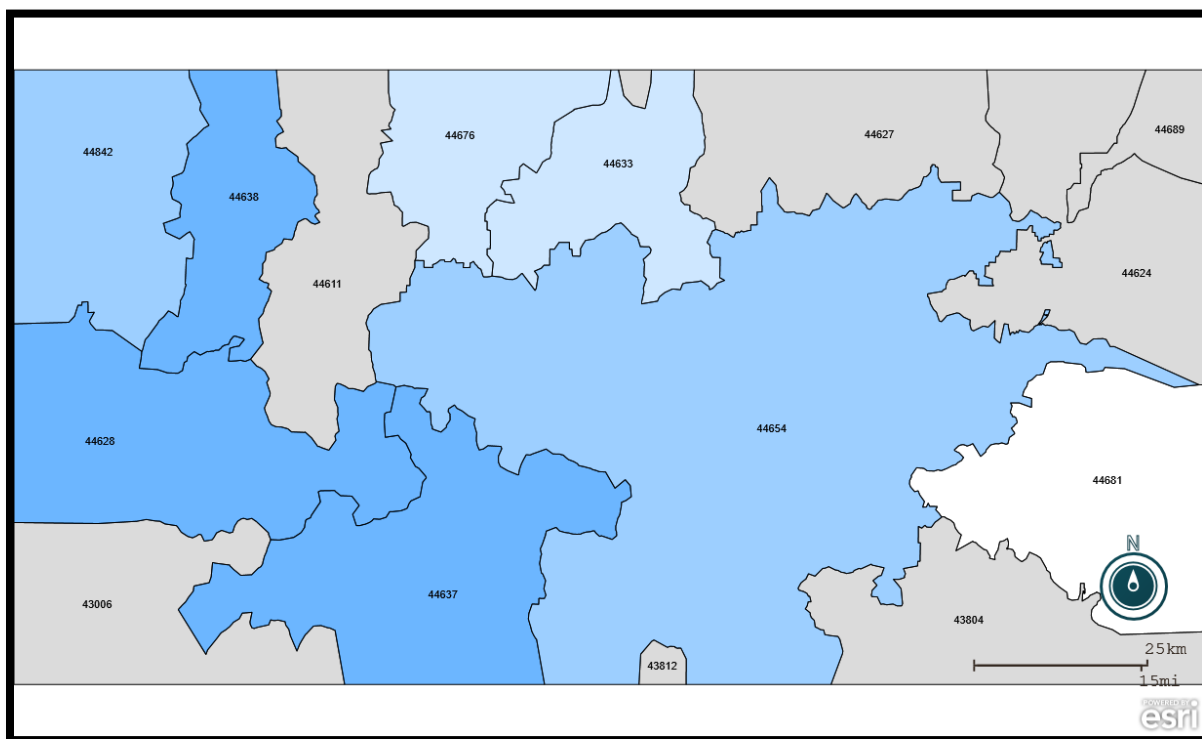
2. Lack of recreational and athletic facilities



3. Access to primary care providers

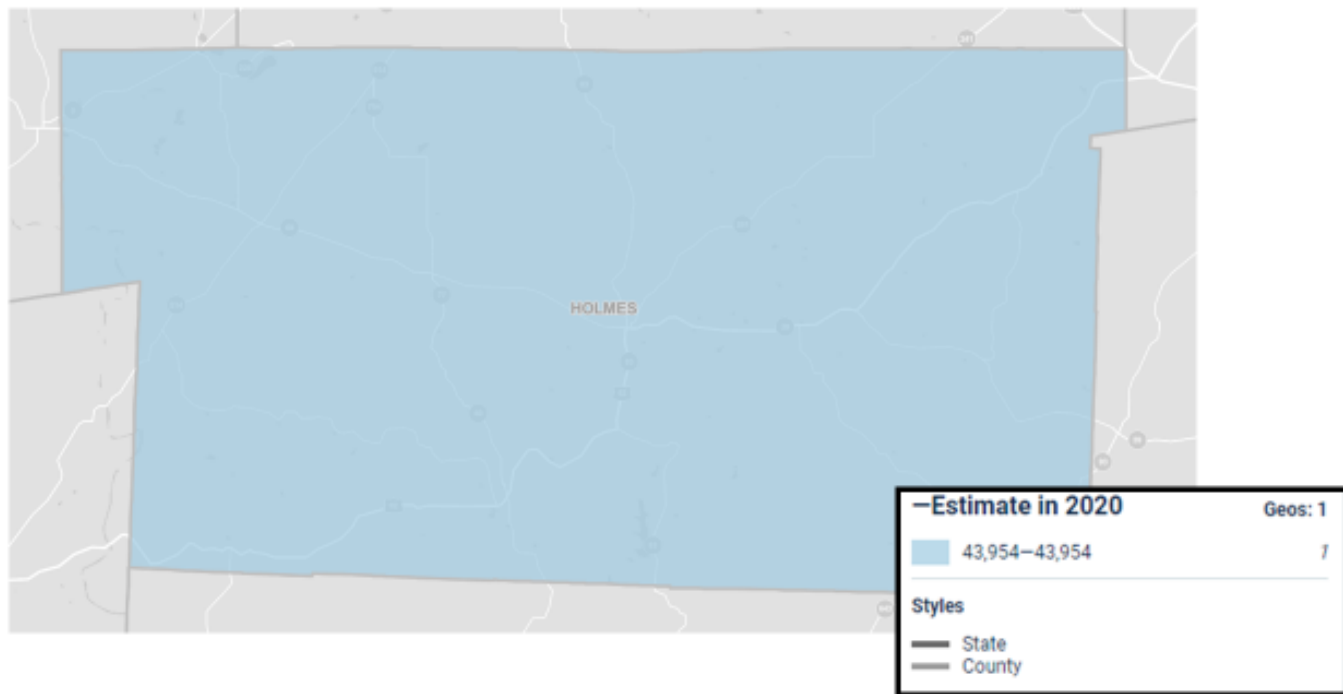


4. Access to mental health providers

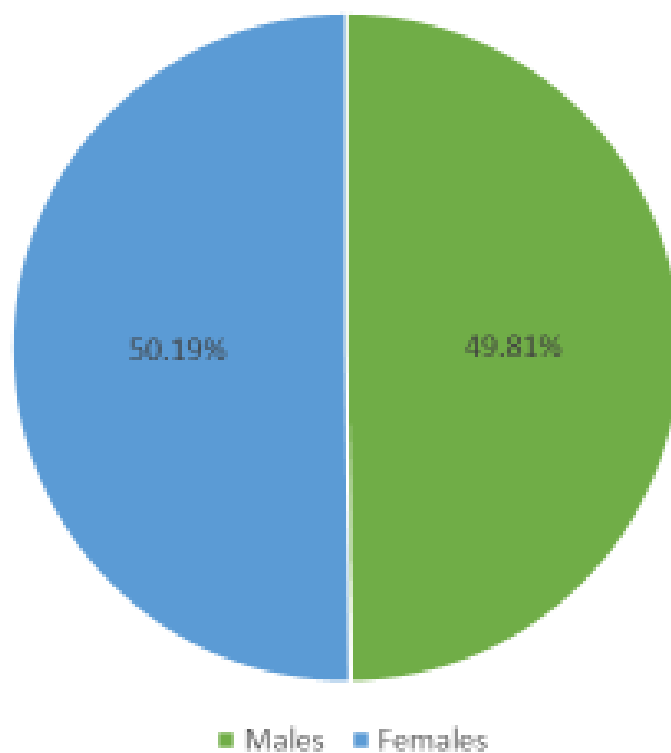


Appendix E-Holmes County Population (United States Census Bureau)

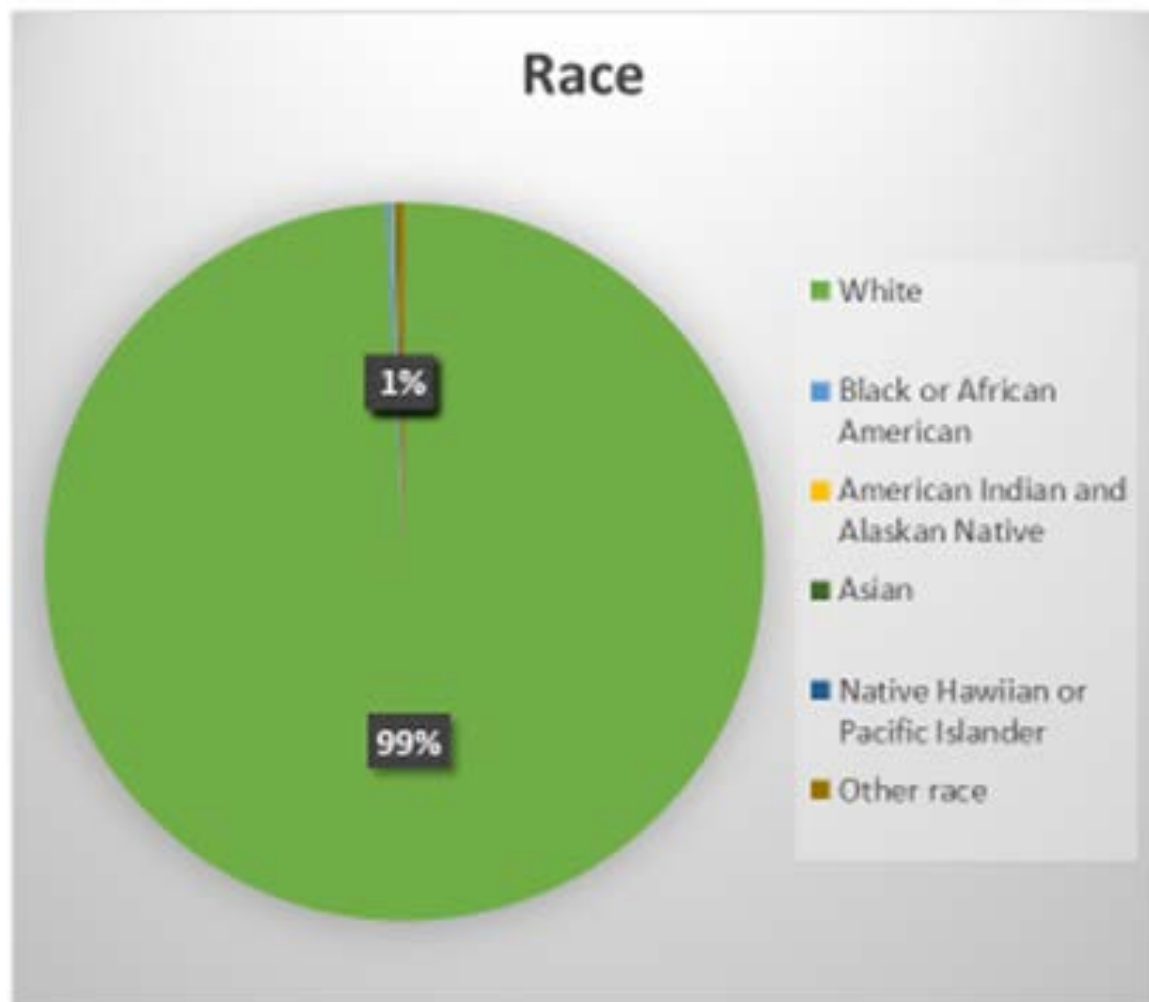
Holmes County Total Population



Appendix F- Holmes County gender distribution (Unites States Census Bureau)

Gender Distribution for Holmes
County 2020

Appendix G- Holmes County race distribution (Unites States Census Bureau)



<https://data.census.gov/cedsci/table?q=0500000U539075&tid=AC335T5Y2020.S0101>