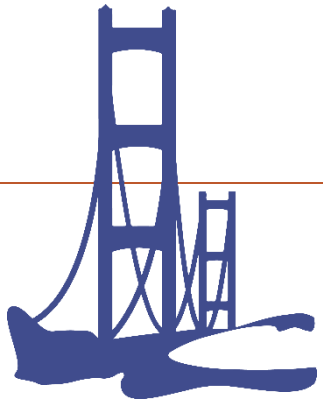
# NorthCare Network

## Demand and Capacity Report

### FY17 Review and Analysis



# Index

# Introduction: NorthCare Network

## Description

The Michigan Department of Health and Human Services (MDHHS) awarded NorthCare Network (NorthCare) the contract to serve as the Prepaid Inpatient Health Plan (PIHP) for all Upper Peninsula Medicaid recipients requiring specialty mental health services, or substance use services, and to provide services and support for persons with intellectual/developmental disabilities. The contract became effective October 1, 2002. The contract is updated and renewed annually. Specifically:

> *"The Michigan Department of Health & Human Services (MDHHS) hereby enters into a contract with the specialty Prepaid Inpatient Health Plan (PIHP)…. Under approval granted by the Centers for Medicare and Medicaid Services (CMS), MDHHS operates a Section 1915(b) Medicaid Managed Specialty Services and Support Program Waiver. Under this waiver, selected Medicaid state plan specialty services related to mental health and developmental disability services, as well as certain covered substance abuse services, have been "carved out" (removed) from Medicaid primary physical health care plans and arrangements. The 1915(b) Specialty Services Waiver Program operates in conjunction with Michigan's existing 1915(c) Habilitation Supports Waiver for persons with developmental disabilities. Such arrangements have been designated as "Concurrent 1915(b)/(c)" Programs by CMS. From the Healthy Michigan Amendment: In addition, CMS has approved an 1115 Demonstration project titled the Healthy Michigan Plan which provides health care coverage for adults who become eligible for Medicaid under section 1902(2) (10) (A)(i) (VIII) of the Social Security Act. Such arrangements have been designated as Concurrent 1915(b)/(c) Programs and the Healthy Michigan Plan are managed on a shared risk basis by specialty Prepaid Inpatient Health Plans (PIHPs), selected through the Application for Participation (AFP) process. Further, under the approval of SAMHSA, MDHHS operates prevention and treatment program under the SUD Community Grant.*
>
> *The purpose of this contract is to obtain the services of the selected PIHP to manage the Concurrent 1915(b)/(c) Programs, the Healthy Michigan Plan and SUD Community Grant Programs, and relevant I Waivers in a designated services area and to provide a comprehensive array of specialty mental health and substance abuse services and supports as indicated in this contract." Medicaid Managed Specialty Supports and Services Concurrent 1915(b)/(c) Waiver Program FY 17 (October 1, 2016 through September 30, 2017)."*

On January 1, 2014 NorthCare Network PIHP was reconfigured as an independent regional entity under Section 1204(b) of the Michigan Mental Health Code. NorthCare is governed by a Board of Directors with representation from Region 1's five affiliate Community Mental Health Service Programs (CMHSPs) and is no longer doing business as Pathways Community Mental Health. In 2014 NorthCare Network earned URAC Health Plan Accreditation, demonstrating our commitment to quality performance in the management of specialty mental health services in all 15 counties of Michigan's Upper Peninsula.

NorthCare Network is responsible to assure a network of providers sufficient to provide access to all medically necessary services covered under the Specialty Services and Supports Contract between MDHHS and the PIHP. To maintain adequate capacity, NorthCare considers the following:

- The anticipated Medicaid enrollment.
- The expected utilization for services, considering Medicaid enrollee characteristics and health care needs.
- The numbers and types (in terms of training, experience, and specialization) of providers required to furnish the contracted Medicaid services.
- The number of network providers who are not accepting new patients.
- The geographic location of providers and Medicaid enrollees, considering distance, travel time, the means of transportation ordinarily used by enrollees, and whether the location provides physical access for persons with disabilities. The Upper Peninsula is held to the 60-mile rural rule for service availability.

# Approach

The populations eligible to receive ongoing Medicaid services are defined by the Michigan Mental Health Code, the Michigan State Medicaid Provider Manual, the Medicaid Managed Specialty Supports and Services Contract, and the 1915(b)/(c) Waiver Program Master Contract. Specialty services provided by the CMHSPs are directed toward the following priority populations: youth with serious emotional disturbances (SED); individuals who have a serious mental illness (SMI); individuals with intellectual /developmental disabilities (I/DD); and those individuals who experience co-occurring disorders (COD) involving any of the above with a substance use disorder (SUD). In addition, NorthCare also provides screening and referral services for individuals to access SUD residential treatment. These providers are outside the CMHSP system.

To guarantee NorthCare's ability to serve the above individuals, there are two contract provisions regarding administrative personnel and the provider network.

- **6.2 Administrative Personnel**
  The PIHP shall have sufficient administrative staff and organizational components to comply with the responsibilities reflected in this contract. The PIHP shall ensure that all staff has training, education, experience, licensing, or certification appropriate to their position and responsibilities.
- **7.0 Provider Network Services**
  The PIHP is responsible for maintaining and continually evaluating an effective provider network adequate to fulfill the obligations of this contract. The PIHP remains the accountable party for the Medicaid beneficiaries in its service area, regardless of the functions it has delegated to its provider networks.

Seven essential administrative functions facilitate meeting NorthCare's mission: *NorthCare Network ensures that every eligible recipient receives quality specialty mental health and substance use disorder services and supports through the responsible management of regional resources.*

- Customer Services
- Provider Network Management
- Management Information Systems
- Financial Management
- Quality Assessment & Performance Improvement
- Service & Utilization Management
- Regulatory Management

NorthCare achieves these contract requirements and sufficient administrative capabilities through internal and regional committees. Regional committees are composed of staff from the affiliate CMHSPs, interested consumers and stakeholders, with PIHP staff as the committee lead. The five affiliate CMHSPs share resources, experiences, and skills to drive performance improvement across Region 1. The CMHSPs use a common electronic health record system and access screening center. They have consolidated certain other administrative functions such as: contracting with inpatient providers, an after-hours telephone crisis response provider for all 15 counties, Gryphon, and Dial Help for substance use, and a common software program, Great Plains, for financial management. The Medicaid requirements are managed through contract, policy, and annual site reviews. The regional committees noted below provide the opportunity to continually explore further administrative efficiencies and review demand and capacity:

***Performance Management Committee*** **(PMC)** is configured with CEO representation from the CMHSPs and the PIHP. This committee ensures the representation of local needs and focuses on performance improvement, compliance, service availability and accessibility, and consumer and stakeholder satisfaction. Each of the NorthCare administrative areas provides a monthly report to the PMC on work plans. Special presentations are scheduled as needed. The PMC and Governance Board are instrumental in the pursuit of consolidation of authority and core PIHP functions while also promoting local service responsiveness.

***Quality Improvement Committee*** is charged to engage individuals we serve and staff in an accurate, data-driven region-wide process, resulting in quality and performance improvement, the achievement of standards, and the establishment of new standards. Its primary charge is to implement the Quality Assessment and Performance Improvement Plan(QAPIP). The committee works to establish a culture based on the continuous quality improvement model as a means to develop and implement improvement processes and monitor their ongoing success. Data-driven reporting is used to ensure progress toward quality improvement and compliance. The committee recommends processes and practices for ensuring overall regulatory compliance and focuses on compliance in a proactive, preventative manner. The committee identifies, monitors, and controls risks associated with complex duties, obligations, rules, regulations, and requirements. The Quality Improvement Committee refers identified compliance issues to the NorthCare Network Leadership and/or Compliance Team as appropriate.

***Clinical Practices Quality Improvement Committee*** and its subcommittees and workgroups (Jail Diversion, Autism Workgroup, Regional Employment Leadership Team, and Behavioral Treatment) are charged with assuring the full array of services are provided according to best clinical practices by a qualified workforce that supports the recovery of the individuals and families served in accordance with the Michigan Mental Health Code, Michigan Medicaid Provider Manual and MDHHS Technical Requirements attached to the MDHHS/PIHP contract. The Committee moves forward through data-driven efforts to improve clinical services as new trends and needs emerge among the populations we serve.

***Utilization Management Committee*** and its workgroups (Regional Emergency Services and Inpatient Quality Improvement) are charged with monitoring utilization of clinical resources and providing supports that ensure services are used only for authorized purposes, are uniformly available to eligible persons, and are provided in an effective and efficient manner. NorthCare Network operates a centralized screening and access center to ensure uniform application of eligibility criteria while avoiding potential conflicts of interest in the determination of eligibility. Face-to-face assessments are conducted locally at the respective affiliate CMHSPs. Inpatient continued-stay reviews are also conducted by NorthCare Network staff to ensure consistent application of ongoing eligibility standards.

***Provider Network Management Committee*** ensures adequate provider capacity throughout the NorthCare Network to meet current and anticipated demands for provision of services. Monitors network capacity and establishes processes and practices for ensuring overall compliance of Network Providers. Provides final review and approval for network provider performance reviews and makes recommendation to the credentialing committee and Quality Oversight and Monitoring Committee as appropriate. This includes assisting the CFO in the development of RFI/RFPs as requested; credentialing of organizational providers in collaboration with HR, credentialing committee, and site review team(s); establish best practices for efficient and effective management of network providers with a focus on common standards and reciprocity and assist with the annual Demand and Capacity Report.

***Finance Committee*** is charged with making recommendations on regional best practices for financial management that demonstrates our fiduciary responsibility as a “value purchaser”.

***Information Technology & Security Committee*** and its workgroups (Data and Analytics, Help Desk, Security Officers, Medical Records, and ELMER) are charged to acquire and support systems which provide essential tools and data support to employees. The committee ensures information systems compliance with oversight agency requirements including HSAG, MDHHS and CMS/OCR.

***Customer Services Committee*** and the Recovery Conference Workgroup are charged with oversight of regional consumer involvement activities. The committee ensures customer service functions delegated to affiliates are completed in a manner consistent with contract, regional, state, and federal mandates. This group reviews and provides input into applicable policies, printed materials, reports, performance indicators, and the consumer satisfaction survey process and results. It serves as a consumer advisory committee to the Quality Improvement Committee and Governance Board.

# Methodology

To determine the ability for NorthCare to meet the anticipated demand, NorthCare analyzes data, looks at current trends, examines U.S. Census data, and reviews the World Health Organization facts. Both Medicaid and Healthy MI consumers are considered in this reports data. Healthy MI is a version of Medicaid available to those who do not qualify for regular Medicaid. MI Child insurance was eliminated part way through FY17. Therefore, when indicating Medicaid services, this insurance type is included unless otherwise specified. MI Health Link, a combined Medicaid and Medicare program, will be denoted if the data is included. In addition to reviewing NorthCare data, such as the Mission-Based Performance Indicator System (MMBPIS), information is received from the CMHSPs. The CMHSPs, comprised of:

- Copper Country Community Mental Health
- Gogebic County Community Mental Health
- Hiawatha Behavioral Health
- Northpointe Behavioral Health Services and
- Pathways Community Mental Health

have a significant role in assuring the capacity of the provider network by annually assessing emerging needs in the counties they serve. Each year they are required to submit to MDHHS an "Annual Submission Report". There are five requirements for the submission:

- Estimated Full-time Equivalents (FTEs)
- Request for Service and Disposition of Requests
- Summary of Current Contracts for Mental Health Service Delivery
- Waiting List
- Needs Assessment

These reports help inform NorthCare of the demand and capacity across the region. This information also provides a framework to guide future service delivery efforts within the Upper Peninsula. In FY17, the CMHSP's identified the following needs and concerns:

- More Inpatient/Outpatient Programs
- Access to Mental Health Services, including education to the community about CMH services and alternative options
- Mental Health Services for Children and Youth
- Psychiatric Services
- Concern about increase in Substance/Drug abuse
- Prevention Programming for youth and families
- Integrated Care
- Trauma Informed Care
- Clubhouse Services and other Networking Availability
- Programming for Parents
- Communication with Law Enforcement
- Transportation

# Demand and Capacity

## Access to Community Mental Health Services

NorthCare Network Mental Health Access Department had a total of 6585 calls in FY17. Of those calls, 2586 resulted in an approval for an intake assessment at the Community Mental Health (CMH) local office. In FY16 there were a total of 9284 calls and 2433 approved appointments, and in FY15 there were 7021 calls with 1942 approvals. Table 1 shows an increasing number of callers approved for intake for Community Mental Health Specialty Program (CMHSP) services. Part of this increase in approvals may be related to the MI Health Link program, which does allow for individuals with identified mild to moderate mental health needs to be treated at the CMHSP. Additionally, in April 2017 there was directive from the department related to kids transitioning to adulthood, age 18-21, indicating individuals in this age range can receive services if they qualify as a child with a serious emotional disturbance. Previously an individual that age would have needed to qualify as a person with a serious mental illness; a more stringent criterion.

Based on 2010 Census Data estimates, supplemented by the annual American Community Survey, the total population of the region has had a minor overall reduction since 2014; -0.55%. However, it is important to note that the data suggest the population is aging and the number of persons under 18 decreasing. The averaged estimated median age in 2016 across the Upper Peninsula is 47 years old. See Appendix 1 on page 36 for greater detail.

This trend toward an aging population indicates the need for increased staff capacity for adults with mental illness (MI) and adults with intellectual and/or developmental disabilities (I/DD). Currently there are 238 staff across the region capable of serving adults with MI and 237 staff for adults with I/DD.

Table 1. Mental Health Access

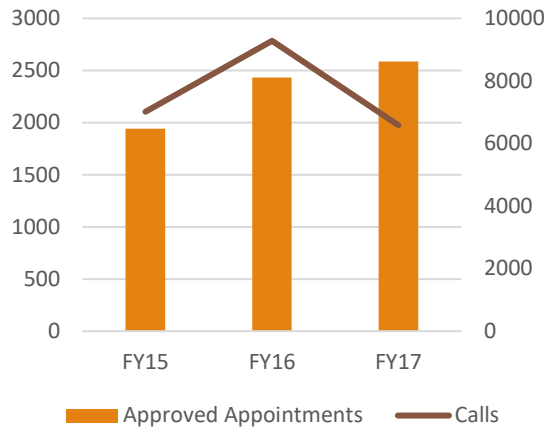



Table 2. Estimated Total Population

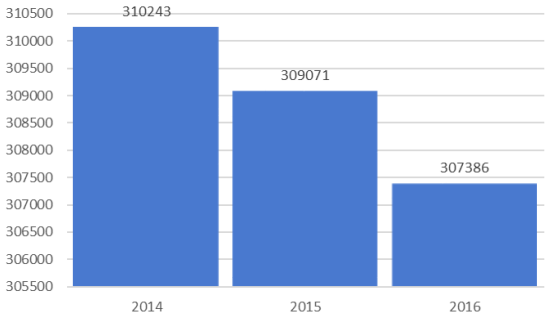



Table 3. Estimated Number of Persons Under 18 Years

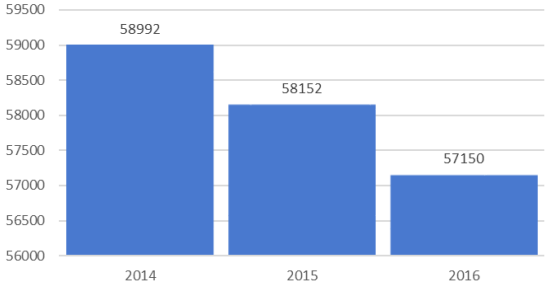



Table 4. Estimated Number of Persons Age 65+

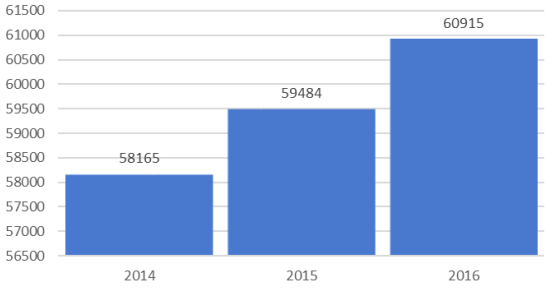



Table 5. 2016 Estimated Median Age by County

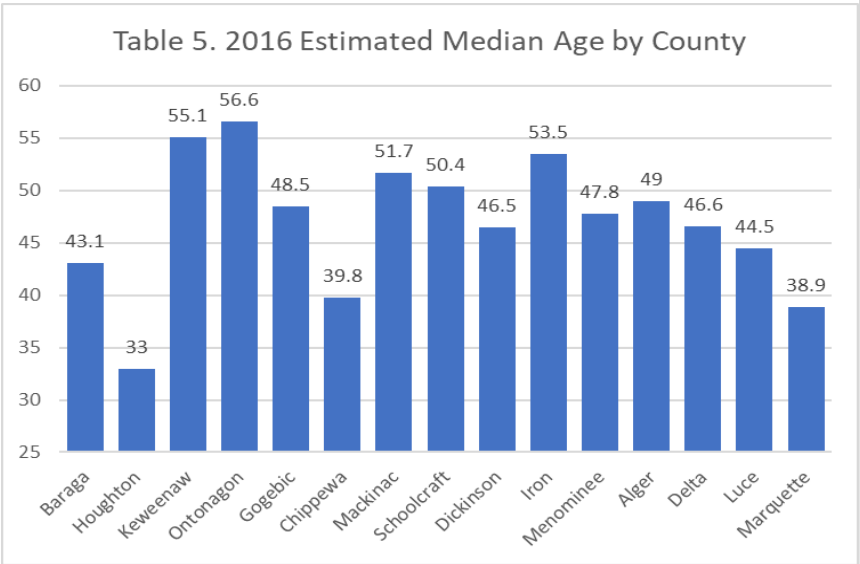



Table **2-5.** Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

While NorthCare strives to serve all individuals who qualify as SMI, SED, or I/DD through the CMHSP system, at times there are waiting lists for individuals without Medicaid. Each CMHSP has a liaison to manage the waiting list. Gogebic, Hiawatha, and Northpointe CMH's did not have anyone on a waiting list in FY17. Pathways had a waiting list for Residential Living Services (H2016), and Copper Country had a waiting list for Case Management/Supports Coordination (T1016, T1017), Intensive Community Services (H0036, H0039), and Clinic Services (9083X, 9XXXX). Consumers with Medicaid cannot be placed on a waiting list. Individuals on a waiting list do not count toward performance indicators, since performance indicators are specific to Medicaid consumers.

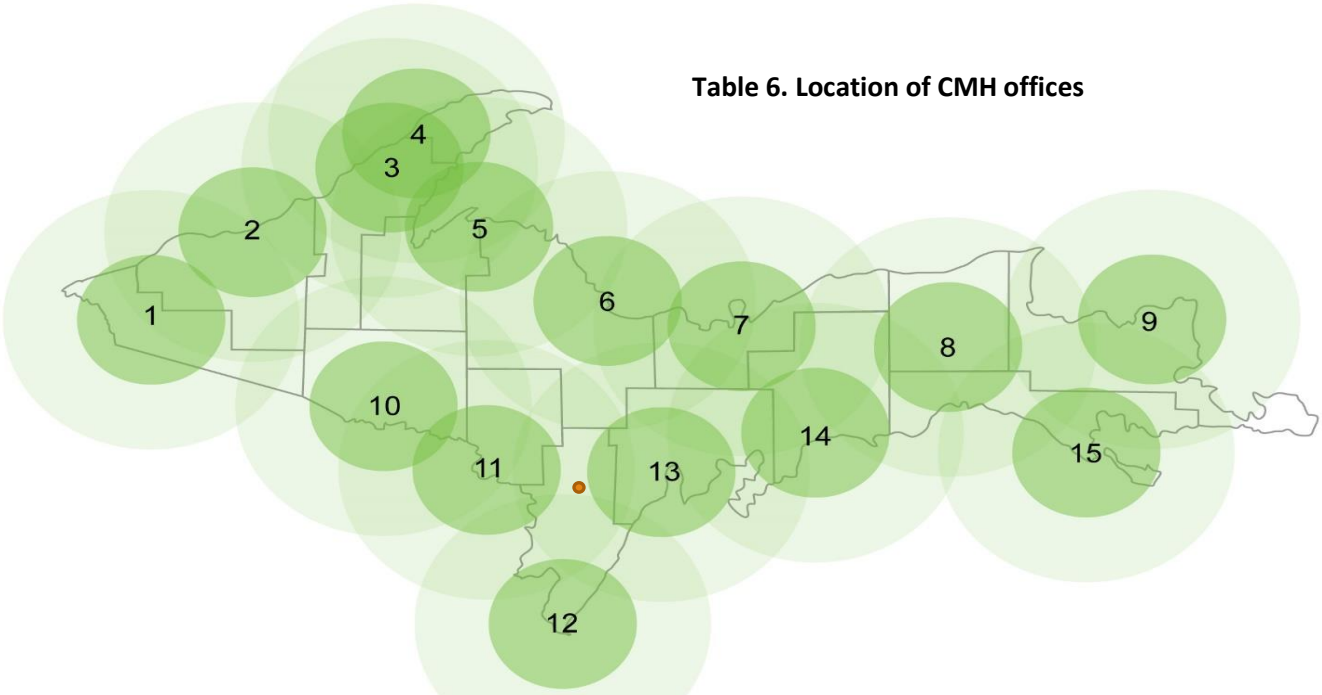
In FY17, NorthCare met the performance indicator standard to have an appointment scheduled within 14 days of Access approval on average 99.6% of the time across 4 quarters. Additionally, consumers had their second appointment (appointment following intake) an average of 98.25% of the time. Both standards are set at 95%.

## Location of Services

To best provide services, NorthCare strives to ensure providers are available in an individual's area. NorthCare is held to the 60-minute/60-mile rule. The CMHSP's are located to accommodate this rule. The provider directory, available at www.northcarenetwork.org lists all the CMHSP providers and links to specific office information such as contact names and address. Directories are updated as needed to assure members have current information about available resources.

The dark green area represents the Urban rule of 30-min/30-miles from each CMH office. The light Green area represents the 60-min/ 60-mile radius from each CMH office. To note, Menominee county has two offices, one located by #12 on the map and another in Powers MI, indicated by the small orange circle. The office in Powers is run part time to better accommodate those who live in that area. Because it is only open a few days it has not been added permanently to the map.

**Table 6. Location of CMH offices**




Copper Country Community Mental Health
- 5 Baraga County
- 3 Houghton County
- 4 Keweenaw County
- 2 Ontonagon County

Goegebic Community Mental Health
- 1 Gogebic County

Hiawatha Behavioral Health
- 9 Chippewa County
- 15 Mackinac County
- 14 Schoolcraft County

Northpointe Community Mental Health
- 11 Dickinson County
- 10 Iron County
- 12 Menominee county

Pathways Community Mental Health
- 7 Alger County
- 13 Delta County
- 8 Luce County
- 6 Marquette County

While the CMHSP locations are within 60-min/60-mile rule, some consumers still struggle to get to their appointments. Public transportation is extremely limited in the Upper Peninsula. Some counties have a bussing system that will transport between two main towns (e.g. Marquette to Gwinn and Ironwood to Wakefield) and others have transport that stays within the main town. In some areas, finding a taxi service can be difficult, most public transits are not available 24 hours a day/ 7 days a week, and some are not handicap friendly. NorthCare Network was awarded grant funding for transportation starting in FY16 and continuing through FY18. The grant monies can be used to aid adult consumers in getting to routine appointments or to their inpatient treatment through the use of gas cards, bus tickets, or CMH staff drivers. Going forward, NorthCare hopes to have a volunteer roster that could also provide transportation. Currently each CMHSP has a liaison that authorizes use of the grant. Each CMH is utilizing the grant slightly differently, which may account for the variance indicated in the graph below. What is known is that transportation services have assisted consumers in getting to their appointments and to the hospital when they are admitted voluntarily. Comparing the general unduplicated population to the subset of those who utilized the transportation grant, those using the transportation services appear to have a reduced percentage of crisis contacts.

**Table 7. Comparison of Crisis Services in CMHSP Served Population and Population Receiving Routine Transportation**

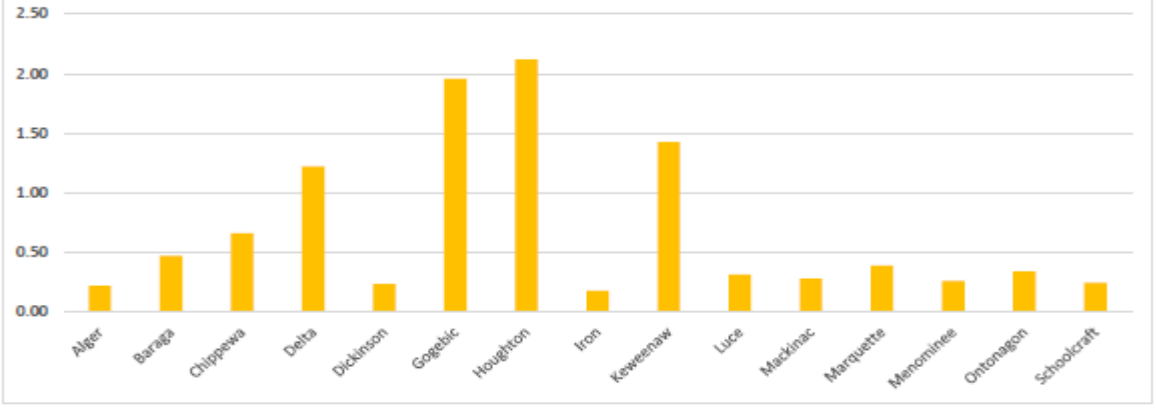
| | All Served by CMHSP's | Routine Transportation Population |
|---|---|---|
| FY16 Consumers Served | 7024 | 15 |
| FY16 Consumers w/ Crisis Encounter | 2678 | 4 |
| FY16 Percent | 38% | 27% |
| FY17 Consumers Served | 7117 | 134 |
| FY17 Consumers w/ Crisis Encounter | 2650 | 20 |
| FY17 Percent | 37% | 15% |

Source: NorthCare Network Safe Transport Grant Comparison of Crisis Services in CMHSP Served Population and Population Receiving Routine Transportation (2/12/18)

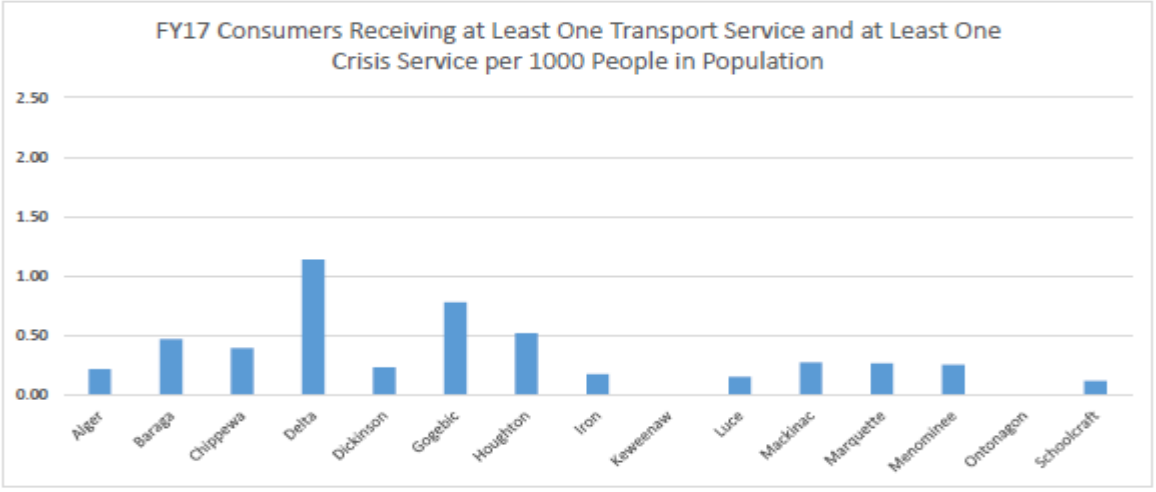
Unduplicated number of consumers with at least one encounter of any type during given time period. Transportation population is a subset of total.

For counties that have high utilization of the grant funding for routine appointment use, it appears to have had an impact on the crisis utilization in that county. While there is no way to identify direct causation, one consumer survey indicated, “This is a very helpful program.”

**Table 8.** FY17 Consumers Receiving at Least One Transport Service per 1000 People in Population




FY17 Consumers Receiving at Least One Transport Service and at Least One Crisis Service per 1000 People in Population




Source: NorthCare Network Safe Transport Grant FY17 Transportation Crisis Utilization Analysis by County (4/13/18)

**Consumers Receiving Transport** is the unduplicated number of consumers with a given county of residence who had at least one transportation service (any type except SUD) within Fiscal Year 2017 (10/1/16 through 9/30/17).

**Consumers Receiving Transport who also had a Crisis Service** is the unduplicated number of consumers with a given county of residence who had at least one transportation service (any type except SUD) within Fiscal Year 2017 (10/1/16 through 9/30/17) and who also had at least one Encounter with a procedure code of T1023, H2011, 90839, 90840, or S9484.

**County of residence** is determined based on the county indicated on the latest 834 Enrollment file within Fiscal Year 2017 for a given consumer. Consumers without enrollment and those whose enrollment is indicated as being outside of the 15 Upper Peninsula counties are excluded from this analysis.

**County Population** is the U.S. Census Population Estimate as of July 1, 2017.

## Numbers of Consumers in Services

Table 9 and 10 below indicate the number of staff at each board. Table 9 indicates the number of staff in each CMH and which populations those staff can serve. Most staff can see multiple populations; hence the overlap in numbers. In FY16, the Copper Country CMH had 47 total staff, Gogebic had 21 staff, Hiawatha 43, Northpointe 54, and Pathways 87. As you can see the overall total licensed professionals for the region is like FY16; with some boards having a slight increase and others a slight decrease in capacity. Table 10 represents number of each type of credentialed staff. NorthCare went from 252 total licensed staff for the region to 269 staff.

Table 11 through 13 represent the number of consumers served. NorthCare served a total of 6221 consumers in FY17. This is up slightly from FY16 which served 6137 Medicaid Consumers. As expected, the largest number of individuals served were

| Table 9. Number of Staff per Population | Copper | Gogebic | Hiawatha | Northpointe | Pathways |
|---|---|---|---|---|---|
| MIA- Mentally Ill Adult | 44 | 12 | 49 | 59 | 74 |
| MIC- Mentally Ill Child | 21 | 9 | 40 | 58 | 50 |
| DDA- I/DD Adult | 44 | 10 | 51 | 59 | 73 |
| DDC- I/DD Child | 21 | 7 | 45 | 58 | 50 |
| **Total Licensed Professionals** | **44** | **19** | **58** | **60** | **88** |

*Source CMH HR Staff

| Table 10. Types of Providers Across the Network Affiliate | ACSW-Lic Master's Social Worker | BCaBA | Board Cert Behavior Analyst | CAADC | CADC | CADC-M | Cert. Peer Support Specialist | Clin-Lic Mstr Soc Wkr | Controlled Substance - Federal | Dietitian | Lic. Bachelor's Social Worker | Lic. Marriage & Family Therapist | Licensed Master's Social Worker | Licensed Practical Nurse | Licensed Professional Counselor | Licensed Psychologist | Limited License Psychologist | Ltd. Lic. Bachelor's Social Wkr | Ltd. Lic. Master's Social Worker | Ltd. Lic. Professional Counselor | Macro-Lic Mstr Soc Wkr | Nurse Practitioner | Occupational Therapy Assistant | Pharmacist | Physician Medical | Physician's Assistant | Reg. Occupational Ther. - State | Reg. Social Service Technician | Registered Physical Therapist | Registered Professional Nurse | Speech Language Pathologist |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper Country CMH | | | 1 | | 1 | 1 | | | 5 | | 10 | | 8 | | 2 | 1 | 5 | 3 | 3 | | | 1 | 1 | | 6 | | 1 | 1 | | 15 | |
| Gogebic CMH | | | | | | | 1 | 4 | 3 | | 7 | | 7 | | 2 | 1 | 2 | | 4 | | 2 | | | 1 | 5 | | 1 | 2 | | 3 | |
| Hiawatha Behavioral Health | | 1 | 2 | 2 | | | 5 | 1 | 4 | | 10 | 1 | 16 | | 5 | 1 | 2 | 5 | 12 | 2 | | | | | 4 | | 4 | 3 | 1 | 9 | 4 |
| Northpointe BHS | | | | | | | 1 | | 1 | 1 | 13 | | 14 | | 1 | | 3 | 15 | 4 | 1 | | 3 | | | 3 | | 1 | 1 | | 13 | |
| Pathways CMH | | 2 | 5 | 7 | | | 4 | 1 | 7 | 2 | 15 | | 39 | 3 | | 1 | 5 | 18 | 16 | 1 | 10 | 3 | 1 | | 7 | | 4 | | 1 | 17 | 3 |
| NorthCare SUD | 11 | | | | 1 | | | | | | 3 | 1 | 9 | 3 | 16 | 2 | 4 | | 12 | 5 | | | | | 2 | 1 | | | | 1 | |
| **Total** | **11** | **3** | **8** | **9** | **2** | **1** | **11** | **6** | **20** | **3** | **58** | **2** | **93** | **6** | **26** | **6** | **21** | **41** | **51** | **9** | **12** | **7** | **2** | **1** | **27** | **1** | **11** | **7** | **2** | **58** | **7** |

**Source:** Aggregation of staff records in ELMER. Staff member will be included in the total for a given license type if he or she had an active license of that type at any time between 10/1/16 and 9/30/17 and was also active at a given CMHSP or SUD provider during that same period.

Data is limited to that entered by CMHSP and Network Management staff.

| Table 11. Consumers Served by Age | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population | Age 3 & Under | 4 - 5 Years of Age | 6 - 17 Years of Age | 18 - 21 Years of Age | 22 -64 Years of Age | 65 + Years of Age | Total Consumers |
| I/DD | 14 | 40 | 254 | 141 | 950 | 148 | 1547 |
| MI | 55 | 65 | 1014 | 338 | 2987 | 186 | 4645 |
| MMD | 0 | 0 | 0 | 0 | 27 | 2 | 29 |
| **MH Totals** | **69** | **105** | **1268** | **479** | **3964** | **336** | **6221** |
| SUD | 0 | 0 | 49 | 94 | 1396 | 2 | 1541 |

| Table 13. Consumers Served by Population | | | | | |
|---|---|---|---|---|---|
| | Adults w/ MI | Children w/ MI | Adults w/ I/DD | Children w/ I/DD | Mild-to-Moderate Adults |
| Copper Country | 481 | 117 | 199 | 33 | 4 |
| Gogebic | 246 | 67 | 96 | 25 | 3 |
| Hiawatha | 675 | 197 | 215 | 66 | 7 |
| Northpointe | 763 | 305 | 259 | 81 | 3 |
| Pathways | 1467 | 479 | 486 | 105 | 13 |
| NorthCare (unduplicated) | **3511** | **1134** | **1239** | **308** | **29** |

Table 12. MH Consumers Served by Population

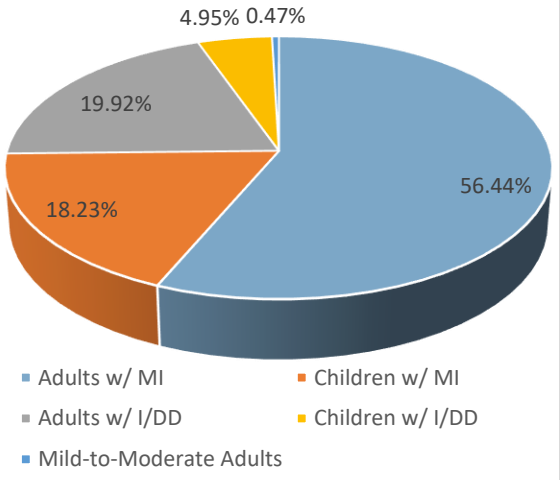
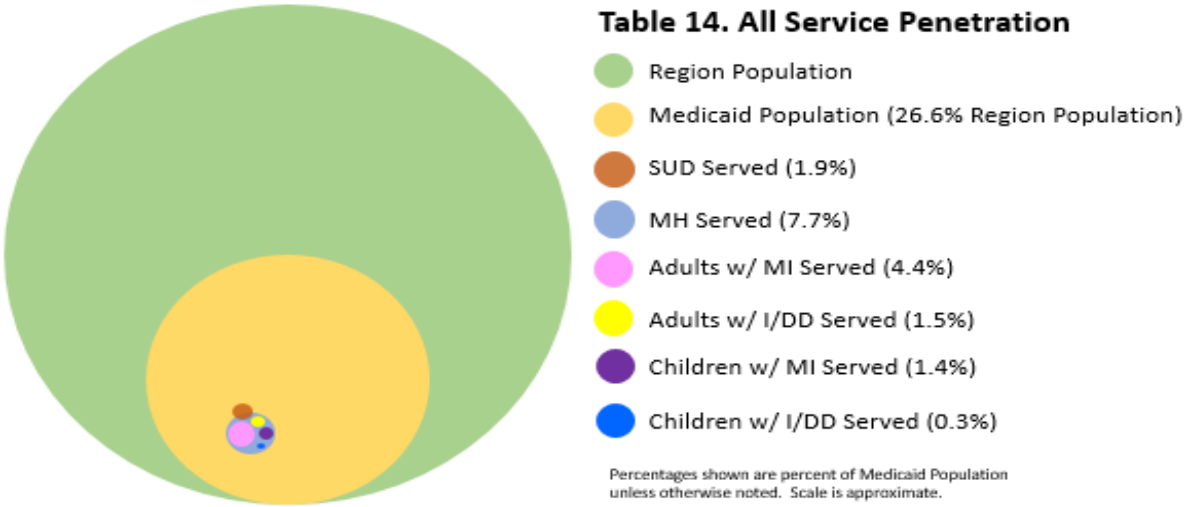



Table 11-13. Diver / FY17 Service Model /Medicaid = 'Y' / Service Reportable = 'Y' / Population (group by broad level) / Affiliate Name

adults with Mental Illness. This age population is the largest (18+). The 18-21-year-old population sub-group is identified due to the MDHHS guidance provided in April 2017 regarding youth in that age range being eligible for SED services. This allows for youth to remain in services beyond the age of 18 to assist with transition to adulthood. Someone seeking services who falls in the 18-21 age bracket could qualify for services therefore as either a person with a serious mental illness or a child with severe emotional disturbance. According to the World Health Organization (WHO), Worldwide 10-20% of youth experience mental illness. Half of all mental illnesses begin by the age of 14 and three-quarters by mid-20s.

The mild-to-moderate adult's column represents adults with MI Health Link coverage. This is a pilot program of adult individuals with Medicare and Medicaid. Adults in this category can receive services through the CMHSP even if the symptom severity is mild to moderate. SUD consumers are reflected independently in Table 10 as the service was provided through an SUD primary provider. These consumers could be duplicated within the CMH system.

NorthCare managed to serve between 7.7% and 9.6% of the population of the Upper Peninsula in FY17. SUD consumers may also be duplicated with MH consumers, thus the approximation. This percentage is the percentage of the Medicaid and Healthy Michigan population. As the Table 14. Venn Diagram below shows, most of mental health services are for adults with mental illness.




## Levels of Care

The Level of Care categories provide a general description of symptom severity, functional capacity as measured by evidence-based assessment tools, and typically indicated supports needed to the consumer. Each level of care contains a preapproved package of services tailored to match the treatment needs generally associated with the symptom severity in each level of care. These are a guide and not intended to trump the person-centered planning process. Medical necessity determines what services a consumer is eligible for and the intensity of those services. The benefit plan is a guide for initiating the planning process and allows for regional monitoring of eligibility determinations for over- and under- utilization of services. Clinical judgement allows the ability to offer services from a different level of care if the service is medically necessary.

The Level of Care guidelines were updated in January 2017. The guidelines now also include a section for the mild to moderate subset of MI Health Link consumers. While this is not reflected in Table 15 below, it is an available level of care for that specific population. The mild to moderate Level of Care allows for limited services, generally less than a year and less than weekly service provision, for those demonstrating mild or moderate psychiatric symptoms or signs of sufficient intensity to cause subjective distress or mildly disordered behavior, with minor or temporary functional limitations or impairments, or for those who previously were considered to have a serious mental illness however symptoms of the former serious disorder have substantially moderated or remitted and prominent functional disabilities or impairments related to the condition have largely subsided for the past 12 months. All Level of Care determinations must comply with the integration mandate of the Americans with Disabilities Act, specifically that services be provided "in the most integrated setting appropriate to the needs of qualified individuals with disabilities." NorthCare has the following levels of care:

**Table 15. Levels of Care within the CMHSP System**

| | | |
|---|---|---|
| Adult with MI | Level 1: Brief Intervention and Supports Maintenance | Functional impairments in daily living skills, social/interpersonal functioning and/or educational/occupational role performance may be sporadically and temporarily evident but the individual has access to, and uses supports when needed |
| | Level 2: Community Support Services- Limited/Low Intensity Supports/Case Management | Psychiatric signs and symptoms are currently, or recently (within the past 12 months) evident and considered moderate in severity/intensity and stable. Clinical instability (risk of harm to self/others) is low. |
| | Level 3: Community Support Services- Moderate Intensity Supports/Case Management | Psychiatric signs and symptoms are currently, or recently (within the past 12 months) evident and considered moderate in severity/intensity. Risk of harm to self/others is moderate. |
| | Level 4: Community Support Services- High Intensity Supports/Case Management | Psychiatric signs and symptoms are currently, or recently (within the past 12 months) evident and considered severe and persistent. Risk of harm to self/others is considered moderate as evident in any of the following: current suicidal or homicidal ideation but without intent or plan, and without past history. |
| | Level 5: Assertive Community Treatment- ACT | Psychiatric signs and symptoms include acute and substantial disturbance of cognition, memory, mood/affect, perception and/or behavior due to severe emotional distress or mental illness. Symptom acuity does not pose an immediate risk of danger to self or others, but risk of harm would likely be substantial if intensive services are not available. |
| | Level 6: Specialized Residential/Special Contract AFC Services | Psychiatric signs and symptoms include prominent disturbance in cognition, perception, or affect and/or severely disordered/bizarre behavior sufficient to interfere with an individual's ability to carry out activities of daily living or impair ability to meet social/educational/vocational role performance expectations. |
| Adult with I/DD | Level 1: Limited Services- Basic Support | Meets criteria as an individual with an intellectual/developmental disability. Housing needs are met in the family home, General AFC, or independent housing. |
| | Level 2: Enhanced Support Services | Meets criteria as an individual with an intellectual/developmental disability. Individual has medical necessity for and desires to be involved in additional support and specialty services beyond basic supports. Housing, entitlements, natural supports and other coordination and linking needs may not otherwise be met without Supports Coordination. |
| | Level 3: Habilitation/Supports Waiver (HSW) Enrollee Services/Autism Benefit | Meets criteria as an individual with an intellectual/developmental disability. Residential needs are met via Specialized Residential contract group home, family home with CLS and/or Respite supports, semi-independent living arrangements with multiple weekly supports. |
| | Level 4: Specialized Residential and Support Services | Meets criteria as an individual with an intellectual/developmental disability. Residential needs are met via Specialized Residential contract group home with 24-hour awake staff. Risk of harm to self or others is minimized with this intensive level of support. |
| Children with I/DD, SED, and Co-occurring Disorders | Level 1: Limited Services- Basic Support | Natural supports are able to adequately provide for the child's basic needs without the need for professional supports. |
| | Level 2: Enhanced Support Services | Treatment goals focus on reduction/remission of presenting symptoms and/or improved level of functioning. There is minimal immediate risk of self-harm or harm to others with natural supports and professional in place. |
| | Level 3: Habilitation Supports (HSW)- Children's Waiver Program (CWP) Services/ Autism Benefit | Supports/services focus primarily on improved level of functioning (community inclusion and participation, independence, and/or productivity) however; reduction/remission of presenting symptoms may also be a focus of clinic services. There is no immediate risk of self-harm or harm to others with natural supports and professional in place. |
| | Level 4: Home-based/ Wraparound/ Intensive Residential and Support Services/ Autism Benefit | The child/family qualifies for home-based, specialized residential, MST or wrap-around services. Symptom severity does not pose immediate risk of harm but risk would be substantially greater if specialty supports were not in place. |

## Services Provided

While the above chart indicates overall Levels of Care, the following shows the actual services that CMHSP consumes received in FY17 and the number of unduplicated consumers who received that service. The color shows a heat map of the percentage of consumers receiving that service. Therefore, a service that is red is more common than a service that is green. Some popular services are a result of the CMH system, including *mental health service plan development by non-physician*, also known as treatment planning. This informs overall treatment and is completed early in services. The highest utilized service is *supports coordination*.

| Table 16. Number and Percent of Services Provided by Type | Unduplicated CMHSP Consumers | % of Total Consumers |
|---|---|---|
| Adaptive behavior treatment by protocol administered by technician each additional 30 minutes | 68 | 1.09% |
| Adaptive behavior treatment by protocol administered by technician first 30 minutes | 68 | 1.09% |
| Adaptive behavior treatment with protocol modification and clinical observation & direction administered by qualified professional first 30 minutes | 68 | 1.09% |
| Adaptive behavior treatment with protocol modification and clinical observation & direction administered qualified professional each additional 30 minutes | 68 | 1.09% |
| Assertive community treatment face-to-face per 15 minutes | 197 | 3.17% |
| Assessment - Developmental Testing | 2 | 0.03% |
| Assessment by Non-Physician; use ST for trauma assessment | 1619 | 26.02% |
| Behavior identification assessment includes interpretation of results and development of the behavioral plan of care. | 70 | 1.13% |
| Behavioral Health Screening by non-physician | 105 | 1.69% |
| Behavioral Health; Short-Term Residential; non- hospital resident treatment | 5 | 0.08% |
| Behavioral follow-up assessment (FBA) each additional 30 minutes | 11 | 0.18% |
| Behavioral follow-up assessment (Functional Behavior Analysis/FBA) | 11 | 0.18% |
| CLS - Comprehensive Community Support Services p/15 minutes | 957 | 15.38% |
| CLS Per Day - Comprehensive community supports services p/diem in specialized residential and other settings | 547 | 8.79% |
| CLS/Supported Housing p/diem; non- licensed independent settings or own home per day | 63 | 1.01% |
| Community-based Wrap-Around services, per diem (SEDW only) | 6 | 0.10% |
| Comprehensive Multidisciplinary Evaluation; does not require face to face with beneficiary | 76 | 1.22% |
| Crisis Intervention Services p/15 minutes | 1654 | 26.59% |
| Dialectical Behavioral Therapy (DBT) | 77 | 1.24% |
| Domiciliary/rest home, Est pt. 2 of 3 key components, typically 25 min | 7 | 0.11% |
| Domiciliary/rest home; Est pt. 2 of 3 key components, typically 15 min | 32 | 0.51% |
| Domiciliary/rest home; new pt. 3 of 3 key components, typically 45 min | 1 | 0.02% |
| Drop-In center attendance; encounter | 63 | 1.01% |
| Durable medical equipment, miscellaneous | 9 | 0.14% |
| ECT | 2 | 0.03% |
| Evaluation of speech fluency, e.g. stuttering, cluttering | 1 | 0.02% |
| Evaluation of speech sound production | 8 | 0.13% |
| Evaluation of speech sound production expanded | 20 | 0.32% |
| Exposure adaptive behavior treatment with protocol modification requiring two or more technicians for severe maladaptive behavior (s); each additional 30 minutes of technician's time, face to face with child. | 3 | 0.05% |
| Exposure adaptive behavior treatment with protocol modification requiring two or more technicians for severe maladaptive behavior (s); first 60 minutes of technician's time, face to face with child. | 3 | 0.05% |
| Family Psycho-education Skills Workshop | 8 | 0.13% |
| Family Psycho-education: family educational groups (either single or multi-family) | 12 | 0.19% |
| Family Psychoeducation Joining | 8 | 0.13% |
| Family Training & Family Parent Training as TFCBT | 94 | 1.51% |
| Family behavior treatment guidance administered by qualified professional. Untimed typically 60 - 75 min | 47 | 0.76% |
| Family or TFCBT therapy with consumer present | 166 | 2.67% |
| Family or TFCBT therapy without consumer present | 139 | 2.23% |
| Foster care, therapeutic, child, per diem (use for CCI) Licensed settings only. Report only for per diem bundled rate that does not include Medicaid-funded personal care and/or community living supports | 2 | 0.03% |
| Group adaptive behavior treatment by protocol administered by technician additional 30 minutes | 2 | 0.03% |
| Group adaptive behavior treatment by protocol administered by technician first 30 minutes | 2 | 0.03% |
| Group therapy adult or child (other than of a multiple-family group) | 147 | 2.36% |

| | | |
|---|---|---|
| Home Based Services or Home-Based Trauma Focused TFCBT; Community psychiatric supportive treatment, face-to-face with child or family; p/15 minutes | 357 | 5.74% |
| Home Care Training, Non-Family (Children's Waiver Service Only) | 13 | 0.21% |
| Home Modifications, Per Service. | 4 | 0.06% |
| Home visit, Est pt. 2 of 3 key components, typically 15 min | 10 | 0.16% |
| Home visit, new pt. 3 of 3 key components, typically 75 min | 1 | 0.02% |
| Hospital Discharge Day | 3 | 0.05% |
| Individual Therapy Adult or Child or TFCBT Therapy 16-37 minutes | 795 | 12.78% |
| Individual Therapy Adult or Child or TFCBT Therapy 38-52 minutes | 997 | 16.03% |
| Individual Therapy Adult or Child or TFCBT Therapy 53 + minutes | 1283 | 20.62% |
| Infant Mental Health; Approved MDCH models only | 13 | 0.21% |
| Injection, Haloperidol Decanoate, Per 50 mg | 1 | 0.02% |
| Injection, Risperidone, Long Acting, 0.5mg | 2 | 0.03% |
| Inpatient Hospitalization - All Inclusive Room & Board Plus Ancillaries | 493 | 7.92% |
| Interpretation or explanation of results of Psychiatric tests to consumer, family and courts. TS is used for recertification | 3 | 0.05% |
| Medical nutrition therapy reassessment & intervention, individual, face-to-face with patient 15 minutes | 46 | 0.74% |
| Medical nutrition therapy, initial assessment & intervention, individual face-to-face with the patient | 78 | 1.25% |
| Medication Administration by injection | 350 | 5.63% |
| Medication training and support p/15 minutes | 27 | 0.43% |
| Mental Health Clubhouse Services | 74 | 1.19% |
| Mental health service plan development by non-physician | 2322 | 37.33% |
| Miscellaneous Therapeutic Items & Supplies, NOC | 164 | 2.64% |
| Multiple-family psychotherapy | 2 | 0.03% |
| Neuro-psychological testing p/hr. | 2 | 0.03% |
| Non-emergency transportation services; ancillary; parking fees, tolls, other | 1 | 0.02% |
| Non-Emergency Transportation; Patient Attendant/Escort | 1 | 0.02% |
| Nursing Assessment | 130 | 2.09% |
| Nutritional Counseling, Dietician Visit | 15 | 0.24% |
| OT/PT Aquatic therapy individual per 15 minutes | 2 | 0.03% |
| OT/PT Gait training (includes stair climbing) individual p/15 minutes | 2 | 0.03% |
| OT/PT Individual Sensory Integrative Techniques | 10 | 0.16% |
| OT/PT Individual Therapeutic Activities p/15 minutes | 9 | 0.14% |
| OT/PT Manual Therapy Individual | 4 | 0.06% |
| OT/PT Self-care home management training; individual p/15 minutes | 6 | 0.10% |
| OT/PT Strength ROM - Individual | 8 | 0.13% |
| OT/PT Wheelchair Management/Propulsion Training | 4 | 0.06% |
| OT/PT physical or manipulative therapy performed for maintenance rather than restoration | 4 | 0.06% |
| Occupational Therapy Evaluation | 68 | 1.09% |
| Occupational Therapy Evaluation - High Complexity - typically 60 minutes | 22 | 0.35% |
| Occupational Therapy Evaluation - Low Complexity - typically 30 minutes | 64 | 1.03% |
| Occupational Therapy Evaluation - Moderate Complexity - typically 45 minutes | 55 | 0.88% |
| Occupational Therapy Re-Evaluation | 5 | 0.08% |
| Occupational Therapy Re-Evaluation - typically 30 minutes | 56 | 0.90% |
| Office outpatient/new; 3 key components face to face; 45 minutes | 4 | 0.06% |
| Office/outpatient/established; 10 minutes (Certification exam) | 119 | 1.91% |
| Office/outpatient/established; 2 of 3 key components; 25 minutes | 1694 | 27.23% |
| Office/outpatient/established; 2 of 3 key components; 40 minutes | 334 | 5.37% |
| Office/outpatient/established; 5 minutes | 85 | 1.37% |
| Office/outpatient/Est; 2 of 3 key components; 15 minutes | 1862 | 29.93% |
| Office/outpatient/new; 3 key components, face to face 60 minutes | 120 | 1.93% |
| Office/outpatient/New; 3 key components 30 minutes face to face | 3 | 0.05% |
| Out of Home Pre-Vocational (HSW Only) | 10 | 0.16% |
| PERS Maintenance | 2 | 0.03% |
| Parent Education | 29 | 0.47% |
| Patient Education, NOC, Non-Physician, Group | 41 | 0.66% |
| Patient Education, NOC, Non-Physician, Individual | 12 | 0.19% |
| Peer specialist services provided by certified per specialist; p/15 minutes | 250 | 4.02% |
| Personal Care Per Diem | 542 | 8.71% |
| Personal care item, NOS | 3 | 0.05% |
| Physical Therapy Evaluation | 3 | 0.05% |

| | | |
|---|---|---|
| Physical Therapy Evaluation - High Complexity - typically 45 minutes | 5 | 0.08% |
| Physical Therapy Evaluation - Low Complexity - typically 20 minutes | 1 | 0.02% |
| Physical Therapy Evaluation - Moderate Complexity - typically 30 minutes | 3 | 0.05% |
| Physician services provided in inpatient hospital care. Initial p/30 minutes | 8 | 0.13% |
| Physician services provided in inpatient hospital care. Initial p/50 minutes | 4 | 0.06% |
| Physician services provided in inpatient hospital care. Subsequent care p/15 minutes | 7 | 0.11% |
| Physician services provided in inpatient hospital care. Subsequent care p/25 minutes | 9 | 0.14% |
| Physician services provided in inpatient hospital care. Subsequent care p/35 minutes | 3 | 0.05% |
| Private Duty Nursing, habilitation supports waiver (individual nurse only) 21 years and over ONLY (LPN) | 3 | 0.05% |
| Psychiatric Diagnostic Evaluation (no medical services) | 208 | 3.34% |
| Psychiatric Diagnostic Evaluation (with medical services) | 423 | 6.80% |
| Psychological Testing by psychologist or physician p/hr. | 75 | 1.21% |
| Psychotherapy for crisis 1st 60 minutes | 1 | 0.02% |
| RN services, up to 15 minutes | 201 | 3.23% |
| Respite Care Services, day in an out of home setting | 45 | 0.72% |
| Respite care p/15 minute | 253 | 4.07% |
| Screening to Determine Appropriateness of Inpatient Hospitalization | 783 | 12.59% |
| Skill Building Assistance; use TT modifier when multiple consumers are served | 646 | 10.38% |
| Specialized Medical Equipment, NOS | 6 | 0.10% |
| Specialized Supply, NOS | 26 | 0.42% |
| Specialized Wraparound Facilitation | 51 | 0.82% |
| Speech and Language Evaluation of oral & pharyngeal swallowing function | 7 | 0.11% |
| Speech and language therapy, individual | 8 | 0.13% |
| Subsequent Nursing Facility care day; expanded problem focused | 1 | 0.02% |
| Supported Employment | 267 | 4.29% |
| Supports Coordination | 2642 | 42.47% |
| Targeted Case Management | 811 | 13.04% |
| Targeted Case Management Services - Child Waiver only. | 17 | 0.27% |
| Telehealth Originating Site Fee | 1448 | 23.28% |
| Therapeutic Camping, Day | 9 | 0.14% |
| Therapeutic Camping, Overnight | 25 | 0.40% |
| Waiver Service NOS | 129 | 2.07% |
| **Total Consumers Served** | **6221** | |

# Specialty Populations

## *Peer Support Specialists*

In FY17 there a total of 315 consumers assisted by Peer Support Specialists utilizing a peer service code. Peer Support Specialists are individuals with lived experience and have expertise that professional training or education cannot imitate. They are trained and supervised for the consumers they serve and provide support services to consumers. Additionally, there were 89 caregivers who utilized Parent Support Partners. Parent Support Partners assist parents of youth with mental health or intellectual/developmental disability needs. These parents also have a child who received CMHSP services. There were no Youth Peer Supports in FY17 and increasing awareness of this service will be addressed in FY18. Peer support services can greatly assist consumers by assisting in goal creation and implementation, learning and practicing new skills, modeling, and supporting consumers during their treatment. Utilizing Peer Supports increases CMHSP capacity.

## *Residential Services*

CMHSPs must be able to demonstrate that sub-contract providers meet established standards. Residential homes may be operated by the CMHSP or subcontracted to a private provider. As noted in Table 17 staff provide daily personal care and community living supports for 770 consumers residing in residential placements; including specialized and generalized residential and foster family homes. The CMHSPs have developed and monitored placements for individuals who have resided in lower Michigan in FY17 (some for many years). Individuals live in placements in lower Michigan for a variety of reasons, including: challenging behaviors, training programs not available in the Upper Peninsula, insufficient bed capacity in the Upper Peninsula, and self-determined choice by the individual in placement. The population of individuals with

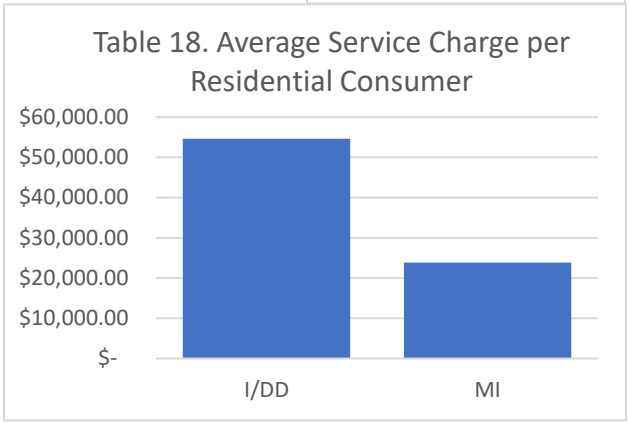
intellectual/developmental disabilities is significantly larger (66.6%) than individuals with serious mental health illness (33.4%). Additionally, the expense of residential care is significantly higher for the I/DD individuals, with 82.1% of the costs generated used for individuals with I/DD. Table 18 reflects the average service charge per residential consumer and the variance between costing for consumers with intellectual or developmental disabilities verse consumers in placement for mental health concerns. Residential costs are not easily limited or cut, and NorthCare anticipates that costs will continue to remain high in this growing, chronic population.

| Table 17. Residential Consumers | |
|---|---|
| Copper | 120 |
| Gogebic | 52 |
| Hiawatha | 157 |
| Northpointe | 148 |
| Pathways | 326 |
| **NorthCare Unduplicated** | **770** |

Source: Diver FY17 Service Model

Medicaid with a Living Arrangement = Foster Home / Foster Care, General Residential Home, and Specialized Residential Home

More importantly, the Home and Community Based Services (HCBS) rule may have a large impact on residential and employment services. The HCBS rule ensures that people are receiving services and supports in their home and community and not in an institutional setting. In 2014, the Centers for Medicare and Medicaid Services (CMS) published the new rules. The goal is to improve the experience of individuals by enhancing access to the community and allowing individuals to make decisions about the services they receive. A transition plan and survey tool was developed by MDHHS and response from both providers and consumers of the Habilitation Supports Waiver was required by March 2017. The survey asked questions such as; type of residence and did they choose to live there, number of people living there and if they have a roommate- did they choose their roommate, is the residence off the campus of a school or institution, are there "house rules," do consumers have access to and control of their funds, and are they allowed to participate in legal activities (e.g. drinking if over age 21). Surveys will be sent to B3 consumers in FY18.




The goal of the program is beneficial for consumers; however, for locations that did not have satisfactory results to the survey, corrective action plans were identified and will be put in place in FY18. While NorthCare anticipates that most locations in the Upper Peninsula will be able to obtain compliance, any locations that cannot come into compliance by the March 2022 deadline will not be allowed to accept Medicaid funding. This has the potential to significantly decrease the capacity for serving vulnerable individuals with the greatest need.

## *Autism*

According to WHO, 1 in 160 children has an Autism Spectrum Disorder (ASD). However, the CDC puts that estimate at 1 in 59. In Region 1, there were 101 unduplicated ABA eligible consumers in FY17. Forty-Three consumers/families disenrolled from the service at some point in FY17. This overall is an increase from the 49 youth enrolled in ABA services in FY16.

Evaluation by MDHHS shows NorthCare compliance with the Autism program. While there is room for improvement, especially in regard to family training, overall NorthCare has been doing well in obtaining compliance; including being 100% compliant for timeliness of the IPOS renewal.

**Table 19. MDHHS Evaluation PIHP Access, Quality, and Collaboration**

| Quarterly Reviewed Measure | Currently Compliance | State Average | Difference |
|---|---|---|---|
| **Mean Compliance** | **80%** | | |
| Re-Evaluation Timeliness | 97% | 93% | 4% |
| IPOS Timeliness | 100% | 92% | 8% |
| Waiting <90 Days for Service | 80% | 49% | 31% |
| Appropraite Real Service Intensity | 51% | 42% | 9% |
| Observation Ratio | 71% | 67% | 4% |
| Regular Family Training and Guidance | 49% | 58% | -9% |

*Information from MDHHS Region 1 Fact Sheet

| Table 20. Autism Cases | | |
|---|---|---|
| **CMH** | **Enrolled** | **Disenrolled** |
| CCCMH | 19 | 8 |
| Gogebic | 13 | 6 |
| HBH | 11 | 7 |
| Northpointe | 28 | 9 |
| Pathways | 30 | 13 |
| **TOTAL** | **101** | **43** |

Source: Waiver Support Application (WSA)

## *Jail Diversion*

In FY17, there were 11 pre-booking and 21 post-booking jail diversion contacts. It has been identified that not all the jail diversion work is being captured in the data, mostly due to the inability to flag various types of contacts. This will be addressed in FY18 to more accurately reflect the work jail diversion staff are doing. Jail diversion staff work with area law enforcement to better serve individuals with a mental health need and provide them appropriate care, sometimes in lieu of legal ramification. Some ways that jail diversion staff do this is through training with local law enforcement. Presentations and training are also offered to community members.

According to Michigan Incident Crime Reporting in 2016 there were 8012 arrests made in the Upper Peninsula. This is a slight decrease from 2015. According to the American Psychological Association in a 2014 article, approximately 7% of the prison population growth between 1980-2000 was due to deinstitutionalization. At the time of the report, 64% of jail inmates, 54% of state prisoners and 45% of federal prisoners reporting having a mental health concerns. It was further estimated that 10-25% of inmates have a serious mental illness. Due to the pervasive mental health concerns within the corrections system, jail diversion work is an important piece of service provision that will continue in FY18.

**Table 21. Arrests by County**

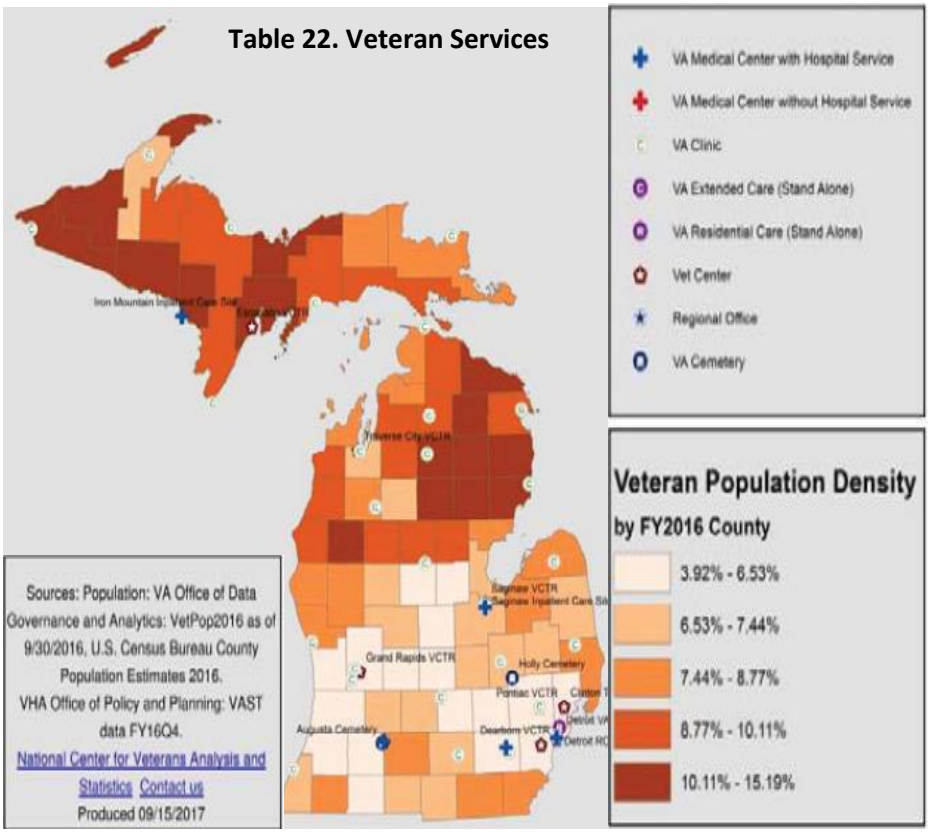
| | Total Arrests | |
|---|---|---|
| **County** | **2015** | **2016** |
| Alger | 237 | 254 |
| Baraga | 183 | 184 |
| Chippewa | 974 | 1052 |
| Delta | 1288 | 1392 |
| Dickinson | 266 | 263 |
| Gogebic | 326 | 337 |
| Houghton | 664 | 532 |
| Iron | 331 | 293 |
| Keweenaw | 21 | 20 |
| Luce | 144 | 167 |
| Mackinac | 464 | 434 |
| Marquette | 1906 | 1989 |
| Menominee | 852 | 774 |
| Ontonagon | 167 | 81 |
| Schoolcraft | 270 | 240 |
| **Total** | **8093** | **8012** |

Source: Michigan Incident Crime Reporting

## *Veteran Services*

Per SAMHSA, there are approximately 23.4 million veterans in the U.S. and approximately 18.5% of veterans who served in Iraq or Afghanistan are diagnosed with PTSD and 19.5% experienced a Traumatic Brain Injury (TBI). Fifty percent of veterans seek mental health treatment and 7.1% meet criteria for substance use disorder. Each day, 22 veterans commit suicide. Statistics from the Veterans Administration show that many Veterans live in the Upper Peninsula and make up 8-15% of our population in most counties. Michigan ranks eleventh in total veteran population within the U.S. Most of the veterans are 65+ years old. NorthCare contracted with a Veteran Navigator in September 2017 and in that month, the Navigator assisted 2 veterans with accessing resources that are available to them.

**Table 22. Veteran Services**




## *MI Health Link*

In FY15, MI Health Link (MHL) was started as a pilot project in 4 of the 10 PIHP regions. This program is for adults with combined Medicare and Medicaid insurances. The goal of the program is to improve the quality of care for those individuals by having one plan and one card for primary health care, behavioral health care, home and community-based services, nursing home care and medications. Members have a care coordinator through Upper Peninsula Health Plan (UPHP), the

Medicaid Health Plan in Region 1. The care coordinator helps to link and coordinate providers serving the member, helps with scheduling appointments, arranges transportation, and assists in the development of the care plan. Members can enroll or dis-enroll at any time. Monthly, newly eligible individuals are passively enrolled in the program by DHHS.

In FY17, the total number of MHL enrolled individuals increased as did the number of individuals served by NorthCare. Individuals with MHL can receive Medicare services though the CMHSP if they have mild/moderate symptomology. In FY17, 29 consumers were served in this capacity through the CMH system. In addition, there are 28 community provider agencies that accept MHL insurance. Due to the monthly enrollment eligibility and the referral process for services, there has been increased administrative duties with the MHL program. NorthCare has 1 grant funded position for integrated care, which includes MHL and all other shared members with UPHP, to meet this demand.

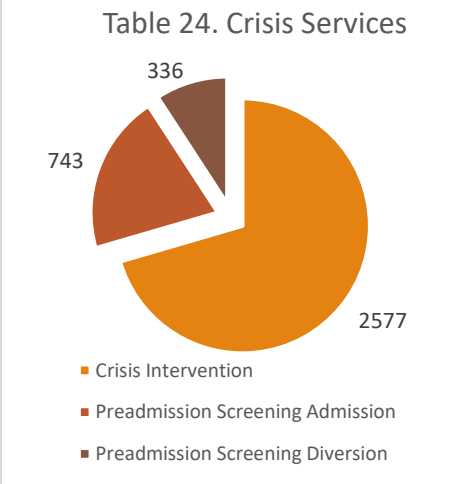
**Table 23. MI Health Link**

| | Oct, 16 | | Nov, 16 | | Dec, 16 | | Jan, 17 | | Feb, 17 | | Mar, 17 | | Apr, 17 | | May, 17 | | Jun, 17 | | Jul, 17 | | Aug, 17 | | Sep, 17 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served | Enrolled | Served |
| **NorthCare** | 3990 | 950 | 3993 | 971 | 4016 | 987 | 4053 | 998 | 4097 | 991 | 4181 | 1002 | 4196 | 1012 | 4233 | 1017 | 4265 | 1050 | 4286 | 1063 | 4289 | 1080 | 4285 | 1100 |
| Copper | 764 | 183 | 775 | 187 | 776 | 183 | 784 | 185 | 790 | 184 | 796 | 180 | 683 | 183 | 792 | 186 | 797 | 187 | 806 | 189 | 807 | 192 | 810 | 191 |
| Gogebic | 302 | 60 | 295 | 60 | 298 | 59 | 294 | 59 | 297 | 59 | 302 | 58 | 252 | 61 | 312 | 61 | 308 | 62 | 306 | 62 | 307 | 60 | 306 | 59 |
| Hiawatha | 599 | 114 | 604 | 115 | 602 | 112 | 610 | 117 | 611 | 116 | 632 | 120 | 571 | 117 | 640 | 114 | 640 | 114 | 642 | 114 | 637 | 114 | 637 | 115 |
| Northpointe | 797 | 167 | 784 | 158 | 792 | 162 | 799 | 165 | 810 | 165 | 831 | 168 | 726 | 167 | 855 | 170 | 862 | 177 | 860 | 177 | 863 | 179 | 858 | 175 |
| Pathways | 1528 | 285 | 1535 | 289 | 1548 | 291 | 1566 | 300 | 1589 | 298 | 1620 | 300 | 1621 | 303 | 1634 | 304 | 1658 | 306 | 1672 | 300 | 1675 | 299 | 1674 | 293 |
| Community | | 140 | | 162 | | 180 | | 172 | | 169 | | 176 | | 180 | | 181 | | 203 | | 218 | | 234 | | 264 |

*Source: NorthCare MI Health Link Report October 2016 – September 2017 Created from SQL Query of EHR Data and MI Health Link Program Enrollment Reports from MDHHS. Consumers Served based on consumers with an open admission to a MI Health Link program in the given period. Consumers Enrolled based on MDHHS MI Health Link Program Enrollment Reports for the given month (Total Enrollees from the Upper Peninsula Health Plan table for LOC. 03, 05, 07, 15)

## *Crisis and Inpatient Psychiatric Services*

NorthCare must ensure access to crisis services for all citizens of the Upper Peninsula in accordance with the regulations outlined in the Michigan Mental Health Code. Crisis intervention services are available in each county for all individuals in that county. Screening for inpatient psychiatric hospitalization services are available for Medicaid consumers through CMHSP emergency services staff in each county. Admission into the psychiatric unit for Medicaid consumers is authorized by the Emergency Services (ES)staff for 24 hours. Following admission, NorthCare Utilization Management completes continuing stay reviews for verification of additional authorization. Reviews are completed for all primary Medicaid (including Healthy MI and MI Health Link) consumers.




In FY17 there were a total of 2577 crisis intervention encounters and 1079 preadmission screening encounters completed for consumers with Medicaid, Healthy Michigan or MI Health Link at the time of the service (Table 24). Crisis intervention notes are used for consumers who are in crisis but are not interested, nor need, hospitalization. All individuals living in the Upper Peninsula are ensured crisis intervention services. Preadmission screenings are completed with those individuals who want, or may need, to be hospitalized on a psychiatric unit. Hiawatha, Pathways, and Copper Country CMH's complete preadmission screenings for individuals with Medicaid. NorthPointe and Gogebic CMH enter preadmission screenings for all individuals regardless of insurance. Of the preadmission screenings completed 743 resulted in admission. This count only includes encounters by NorthCare CMHSP staff. It excludes PAS by out of region CMHSP for NorthCare consumers.

In FY17, NorthCare had contracts with 3 hospitals: Upper Peninsula Health Systems-Marquette, previously known as Marquette General Hospital and Duke Life Pointe; War Memorial Hospital; and St Mary's/Pine Rest, a joint contract. Table 25 shows that NorthCare had 611 inpatient admissions (excluding MHL) utilized 31 hospitals with 80 single case agreements for a

| **Table 25. Hospital** | **Encounters** |
|---|---|
| Alpena Regional Medical Center | 13 |
| Bellin | 9 |
| DLP Marquette General Hospital, LLC | 286 |
| Forest View | 21 |
| Harbor Oaks Hospital | 5 |
| Havenwyck Hospital | 16 |
| Healthsource Saginaw (White Pine) | 22 |
| Pine Rest Christian | 18 |
| St. Mary's Health Care/Pine Rest Campus | 11 |
| St. Mary's Hospital | 39 |
| War Memorial Hospital | 148 |
| Other Facilities | 23 |
| **Total Admissions** | **611** |

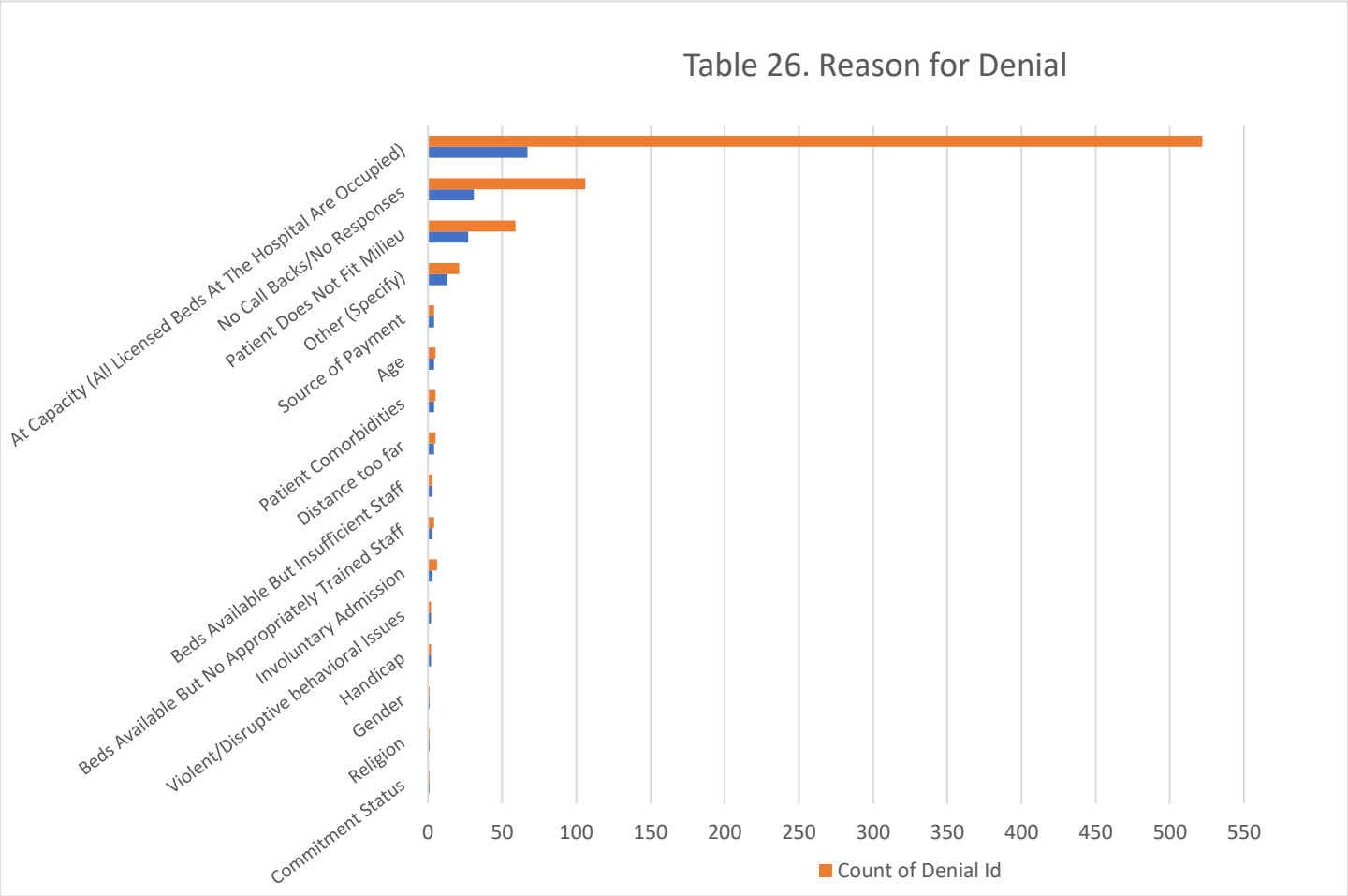
Source: SQL Query of EHR Data

total of 5024 inpatient days authorized by NorthCare resulting in $4,163,162 of expenditure in FY17. These numbers are slightly different than the pie graph above due to the exclusion of MI Health Link insurance.

Inpatient capacity was a noted concern in FY17. As of 2015, there were 2046 adult psychiatric beds and 247 youth beds in the state of Michigan. The number of beds is no longer reported; therefore, updates are unclear. While this seems like a lot of beds, ES workers often were denied by hospitals due to capacity concerns. In some situations, such as at Upper Peninsula Health Systems-Marquette (UPHS-M), previously known as Marquette General Hospital, the issue is lack of staffing rather than a lack of beds. UPHS-M is licensed for six youth psychiatric beds, however has not had a child psychiatrist to staff those beds since July 2016. Table 26 below is from information entered into the Michigan Psychiatric Inpatient Denial Database which has been in use since June of 2017. This database allows for tracking of the number of times a consumer is denied inpatient admission by a hospital. It is expected that the below data may have some inconsistency in documentation, however, even as documented capacity concerns are evident.

There was a total of 747 denials from June 2017 to September 30, 2017. This was for an unduplicated count of 67 consumers. There were 3 denials for consumers under age 18 for a denial reason of age. While this is incomplete data, it is an identifier of the demand related to inpatient psychiatric hospitalization and issues with current capacity in Michigan. The average number of hospital inpatient denials per consumer was 11.15. This means that each consumer, on average, was denied by 11 hospitals before being accepted into a unit.

While 100% of crisis decisions in FY17 were made within 3 hours of contact, a performance indicator measurement, due to the number of hospital denials, there was increased time spent in the Emergency Room for ES staff and increasing frustration to the consumer. While currently ES staff have to call numerous hospitals to gain access to a bed for their consumer, in the future there is discussion of creating a centralized bed registry with one number to call to determine where there are available beds.




Source: Michigan Psychiatric Inpatient Denial Database

Recidivism and 7-day follow up are two other performance indicators associated with inpatient hospitalization. Recidivism measures readmission of a consumer to a hospital psychiatric unit within 30 days of discharge from a previous psychiatric unit. Follow up measures the percent of consumers who are to follow up with the local CMH provider who are scheduled within 7 days of discharge. NorthCare was within the standards for all quarters in FY17 for recidivism and 3 quarters for 7-day follow up. In Quarter 1 of FY17 NorthCare had a rate of 94% of adult consumers having an appointment scheduled within 7 days of discharge from the inpatient unit. The standard is 95%.

Individuals are often hospitalized because they are a risk to themselves. According to WHO, nearly 800,000 people die by suicide every year and it is the second leading cause of death among 15-29yo. For every suicide, there are many more people who attempt suicide. A prior suicide attempt is the single most important risk factor for completed suicide. WHO reports 78% of global suicides occur in low to middle income countries. While there is a link between suicide and mental health disorders, especially depression and alcohol use, in high income countries, many attempts happen impulsively and in a moment of crisis.

Depression is the leading cause of disability worldwide (WHO). Over 300 million people live with depression, 60 million with bipolar disorders, and 23 million with schizophrenia related disorders. In high-income countries, between 35% and 50% of people with mental disorders receive no treatment for their disorder. The suicide mortality rate for every 100,000 people in the United States is 19.3 for males and 5.9 for females (WHO). Within Region 1, there were six deaths of Medicaid or Healthy MI consumers receiving mental health services within the past 30 days due to suicide in FY15, zero in FY16, and four in FY17.

The NorthCare Customer Services Handbook has a complete listing of CMHSP emergency numbers and all hospitals that serve as emergency evaluation sites in the Upper Peninsula. The handbook is available at the NorthCare website: www.northcarenetwork.org.

## *Integrated Health Care*

SAMHSA reports that 68% of adults with mental illness have one or more chronic physical conditions and 1 in 5 have a co-occurring substance use disorder. Integrated care allows for coordinated treatment across professions to provide better informed care to consumers. NorthCare staff and CMHSP staff meet with staff from the Upper Peninsula Health Plan to discuss the treatment of shared consumers who are "super-utilizers." This has resulted in a reduction of duplicated work process and increased integration of care. Utilizing CMT data, Table 27 shows

**Table 27. NorthCare Chronic Co-morbidity Hospitalization Risk**

**Report Period: October 1, 2016 through September 30, 2017**

| Top 10 Chronic Co-Morbidities | N | % of Total | N Hosp. Visits per 100 Pts | Relative Risk of Hosp. |
|---|---|---|---|---|
| No Chronic Co-Morbidity | 2,275 | 56.2% | 15 | 1.32 |
| Any Chronic Co-Morbidity | 1,775 | 43.8% | 49 | 4.27 |
| Asthma and COPD | 131 | 3.2% | 105 | **9.15** |
| Hypertension and Pre-Diabetes | 113 | 2.8% | 104 | 9.07 |
| Chronic Pain and Hypertension | 192 | 4.7% | 99 | 8.6 |
| Epilepsy and Hypertension | 102 | 2.5% | 97 | 8.43 |
| Chronic Pain and Dyslipidemia | 167 | 4.1% | 91 | 7.91 |
| Hypertension and Morbid Obesity | 111 | 2.7% | 90 | 7.83 |
| Neurological Disorders and Any Other Chronic Condition | 742 | **18.3%** | 88 | 7.66 |
| Asthma and Chronic Pain | 210 | 5.2% | 86 | 7.49 |
| Asthma and Past Tobacco Use | 135 | 3.3% | 85 | 7.4 |
| Hypertension and Past Tobacco Use | 136 | 3.4% | 81 | 7.03 |

Source: CMT Report Period: October 1, 2016 through September 30, 2017

**Table 28. Annual Submission Report**

| | Copper | Hiawatha | Gogebic | Northpointe | Pathways |
|---|---|---|---|---|---|
| **Diabetes** | | | | | |
| History of Diabetes but not treated for Diabetes within the past 12 months | 29 | 19 | 11 | 49 | 51 |
| Treated for Diabetes within the past 12 months | 80 | 80 | 38 | 109 | 189 |
| **Asthma** | | | | | |
| History of Asthma but not treated for Asthma within the past 12 months | 114 | 69 | 48 | 160 | 260 |
| Treated for Asthma within the past 12 months | 113 | 111 | 67 | 192 | 379 |
| **Hypertension** | | | | | |
| History of Hypertension but not treated for Hypertension within the past 12 months | 53 | 32 | 21 | 84 | 108 |
| Treated for Hypertension within the past 12 months and blood pressure is stable | 111 | 150 | 61 | 183 | 279 |
| **Obesity** | | | | | |
| Have medical diagnosis of Obseity present or BMI > 30 | 232 | 242 | 114 | 408 | 545 |

Source: CMH Annual Submission Report

NorthCare rates of co-morbidity and hospitalization risk. While most didn't have any listed comorbidities, of those with comorbidities, the largest number of people indicated having Neurological Disorders. Asthma and COPD had the largest number of hospitalizations and the highest relative risk of hospitalization. There were 4 consumers served via care coordination in FY16 and 9 in FY17.

Encouraging a consumer to have a primary care doctor and coordinating with that doctor is an important part of care at the CMHSP. The CMHSP Annual Submission Report in Table 28 shows that the majority of consumers in CMHSP services are seeking treatment for their physical health disorders, however many still are not.

### *Co-Occurring Treatment Services at the CMHSP*

All the CMHSP's are licensed to provide co-occurring treatment and also provide integrated dual diagnosis treatment embedded in the Assertive Community Treatment team. In FY17, there were 712 unduplicated consumers served by the CMHSP system with the HH modifier on the claim. This is 11.45% of the total CMHSP population. The HH modifier indicates co-occurring services were provided. Co-occurring services are available to CMHSP eligible consumers that qualify based on SMI, SED, or I/DD criteria. It is believed that this is under-reported and adjustments to the electronic medical record to add reminder prompts are being considered in FY18. Co-occurring training opportunities for CMHSP staff will also be promoted in the future.

**Table 29. MH & SUD Co-Occurring Treatment at CMHSPs**

| AffiliateName | # clients with HH service | # clients served | % w/ Co-Occurring Services |
|---|---|---|---|
| Copper Country CMH | 154 | 834 | 18.47% |
| Gogebic CMH | 40 | 437 | 9.15% |
| Hiawatha | 191 | 1160 | 16.47% |
| Northpointe | 108 | 1411 | 7.65% |
| Pathways | 223 | 2550 | 8.75% |
| **NorthCare (unduplicated)** | **712** | **6221** | **11.45%** |

Source: Diver FY17 Service Model

Diver/FY17 Service Model: Medicaid = Y/ Service Reportable = Y / Encounter Code: Find all HH, Group / AffiliateName Consumer is considered Medicaid if they were eligible at any time during the fiscal year. Services are encounters with HH modifier signifying Co-Occurring treatment

## Access to Substance Use Disorder Services

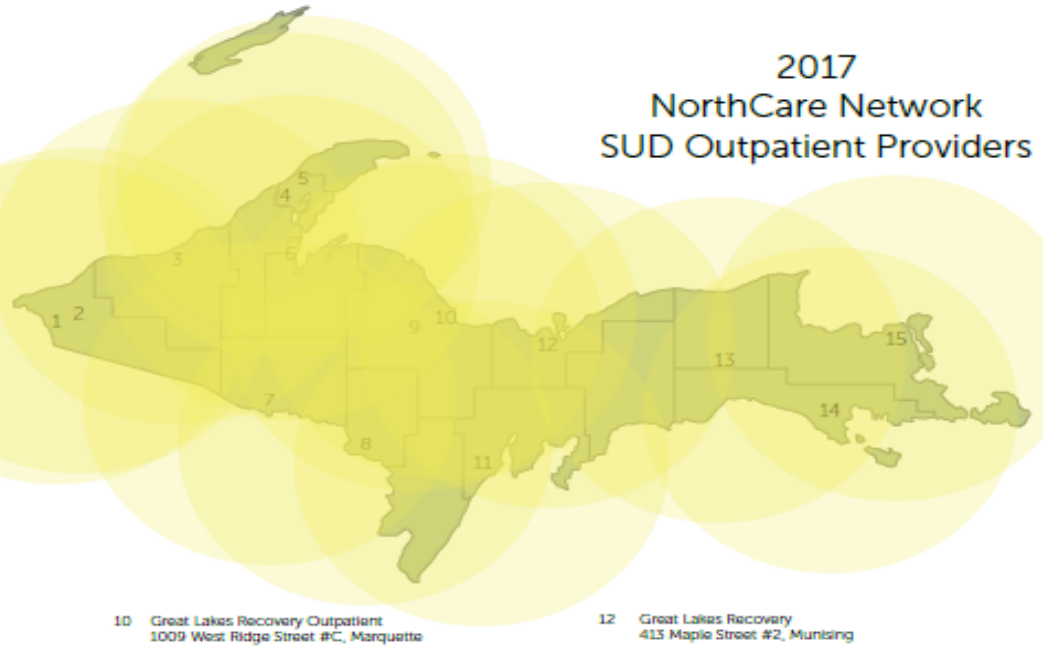
NorthCare Network Substance Use Access Department completed a total of 1670 screenings in FY17. Following assessment, there were 489 referrals to a residential provider. SUD Medicaid services include assessment, individual and group therapy, intensive outpatient therapy, inpatient residential services, subacute detox services, and recovery housing. Through Block Grant funding additional specialty services included case management, women and children's services and room and board for residential placement.

Prevention services are a vital component to reducing future demand. NorthCare has 14 substance use prevention coalitions that cover all 15 counties. Each coalition has one coordinator and many community volunteers who utilize an evidence-based coalition model. These coalitions help identify the risk and protective factors that are affecting the community's youth. Trainings occur for volunteers in every county and last year about 350 coalition volunteers were trained. Coordinators and other volunteers were trained in Social Development Strategy to promote positive youth development and 15 providers were trained to deliver a family prevention program. NorthCare provided Prevention Ethics, New Coordinator Training, bi-weekly coaching for community coalitions and quarterly face to face workshops for community coalition coordinators. Additionally, over 200 tobacco vendors were given education about the youth tobacco act. Over 4000 students and 30 families have been provided with evidenced-based prevention programming via the coalitions. Approximately 200 youth and adults have received early intervention services.

## Location of Services

With providers located across the region, the role of NorthCare is to coordinate and oversee the delivery of outpatient and residential services within Region 1. Substance use outpatient providers are also held to the 60-min/60-mile standard. As shown by the yellow circles, the Upper Peninsula has coverage under this rule. The following map in Table 30 is a listing of the available outpatient SUD service providers in the Upper Peninsula.

**Table 30.**




1 Great Lakes Recovery Outpatient
113 South Curry, Ironwood

2 Phoenix House Outpatient
101 East Mart Street #3, Bessmer

3 Phoenix House Outpatient
902 River Street, Ontonagon

4 Phoenix House Outpatient
540 Depot Street, Hancock

Great Lakes Recovery Outpatient
920 Water Street #6, Hancock

5 Phoenix House Residential & Outpatient
57467 Waterworks Street, Calumant

6 Keweenaw Bay Indian Community Outpatient
16429 Bear Town Road, Baraga

7 Great Lakes Recovery Outpatient
305 West Genesee, Iron River

8 Great Lakes Recovery
301 Kent Street, Iron Mountain

Catholic Social Services Outpatient
427 South Stephenson Avenue #215, Iron Mountian

9 Great Lakes Recovery Outpatient
97 South Fourth Street, Ishpeming

Great Lakes Recovery Youth Residential & Outpatient
104 Malton Road, Negaunee

10 Great Lakes Recovery Outpatient
1009 West Ridge Street #C, Marquette

Catholic Social Services Outpatient
347 Wright Street, Marquette

Marquette General Behavioral Health Services
580 West College, Marquette

11 Catholic Social Services
1100 Ludington Street #401, Escanaba

Great Lakes Recovery
2500 7th Avenue South, Escanaba

12 Great Lakes Recovery
413 Maple Street #2, Munising

13 Great Lakes Recovery
405 Newberry Avenue #2, Newberry

14 Great Lakes Recovery Outpatient
799 Hambach Street, St. Ignace

15 Great Lakes Recovery New Hope Outpatient
2655 Ashmun, Sault Ste. Marie

## Number of Consumers in Services

As Table 31 and 32 portray, the associated diagnoses for SUD admissions to residential services for individuals with Medicaid; including Healthy MI and MI Health Link were primarily for opiates and alcohol. There was a total of 489 residential admissions in FY17. There were 1175 admissions for outpatient services. Opiates and alcohol remain the primary substances people are seeking treatment for, however marijuana treatment also is increased for outpatient services. The numbers reflect number of admissions and are a duplicated count for the region. To protect identity, county specific data was not included.

**Table 31. SUD Residential Admissions by County, Primary Substance at Admission**

| County | Alcohol | Benzodiazepines | Cocaine / Crack | Heroin | Marijuana / Hashish | Methamphetamine / Speed | Other Amphetamines | Other Opiates / Synthetics | Other Sedatives / Hypnotics | Other Stimulants | Over-the-Counter Medications | Total Admissions per County |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Admissions per Primary Substance | 192 | 4 | 13 | 34 | 27 | 36 | 10 | 168 | 1 | 3 | 1 | **489** |

Source: SUD Admissions Detail PCE Standard Report Servicie Type Desc= Residential Long-Term, Residental Short-Term
Admissions within time period 10/1/16 - 9/30/17 Admission Funding= Medicaid, MI Child, Healthy MI or MHL

**Table 32. SUD Outpatient Admissions by County, Primary Substance at Admission**

| County | Alcohol | Benzodiazepines | Cocaine / Crack | Heroin | Marijuana / Hashish | Methamphetamine / Speed | Non-prescription methadone | Other Amphetamines | Other Drugs | Other Opiates / Synthetics | Other Sedatives / Hypnotics | Total Admissions per County |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Admissions per Primary Substance | 441 | 4 | 12 | 55 | 122 | 54 | 1 | 20 | 6 | 457 | 3 | **1175** |

Source: SUD Admissions Detail PCE Standard Report Service Tyle Desc= Outpatient, Intensive Outpatient
Admissions within time period 10/1/16 - 9/30/17 Admission Funding = Medicaid, MI Child Healthy MI, or MHL

Similarly, opiates and alcohol were the primary causes of consumers receiving detox services (Table 33). Alcohol has traditionally been a concern in the Upper Peninsula, but opiates are a newer concern. Suboxone and Subutex, the medications used to assist treatment, are available in the Upper Peninsula and have also become a drug of misuse for some individuals. This treatment is available primarily in Marquette. For many, this means long distances to travel to receive medication. Methadone treatment is not available in the region.

There has been increased community effort to educate residents about prescription medications. Drug take back programs aim to reduce easy access to prescription drugs. The UP Coalition Network website lists all drug disposal sites by county at www.UPprevention.org.

**Table 33. SUD Detox Admissions by County, Primary Substance at Admission**

| County | Alcohol | Cocaine / Crack | Heroin | Methamphetamine / Speed | Other Opiates / Synthetics | Total Admissions per County |
|---|---|---|---|---|---|---|
| Grand Total | 78 | 2 | 19 | 1 | 104 | 204 |

Source: SUD Admissions Detail PCE Standard Report
Admissions within time period 10/1/16 - 9/30/17
Admission Funding = Medicaid, MI Child, Healthy Michigan or MI Health Link
Service Type Desc = Ambulatory - Detoxification, Detoxification

The upcoming closure of the UPHS-M SUD inpatient unit will have an impact for MHL consumers who previously had this option available to them. The closure is anticipated at the end of 2018. While NorthCare has not had a contract for Medicaid consumers with this provider, there was a contract for MHL consumers. Developing contracts with additional providers will be considered in FY18.

In FY17, Performance Indicators for SUD showed follow up within 7 days of discharge from a detox unit was at 100% for 3 quarters. In Quarter 2, the measure was at 91%; with the standard being 95%. The percent of consumers receiving a face to face assessment within 14 calendar days of request for service was more problematic (Table 34). Especially with residential services, there is a delay to get consumers into services due to a lack of beds. NorthCare is considering potentially contracting with more providers to address this need. Once assessed, consumers started services within 14 days 98% of the time, exceeding the 95% standard (Table 35).

**Table 34. Appointment w/in 14 days of Request**

| Substance Abuse | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|
| # New Rec FTF Asmt | 326 | 350 | 313 | 290 |
| # New Exceptions | 31 | 29 | 23 | 11 |
| # Rec FTF -Exceptions | 256 | 263 | 243 | 267 |
| % Rec FTF w/14 Days | 87% | 82% | 84% | 96% |

**Table 35. Start of services w/in 14 days of Assessment**

| Substance Abuse | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|
| # New Starting FTF Srv | 313 | 328 | 313 | 286 |
| # New Exceptions | 0 | 5 | 0 | 0 |
| # Starting Srv w/in 14 days | 313 | 320 | 306 | 281 |
| % Starting srv w/in 14 Days | 100% | 99% | 98% | 98% |

## Level of Care

The American Society of Addiction Medicine (ASAM) splits SUD treatment into different levels of care from Early Intervention for those at risk to Medically Managed care. The various levels of care provide a continuum of care allowing for consumers to move up and down the continuum. The residential admissions identified in Table 31 mostly represent level 3.5 and 3.1.

**Table 36. ASAM Levels of Care**

| | |
|---|---|
| Level .5 Early Intervention | Service for individuals at risk of developing a SUD |
| Level 1 Outpatient Services | Typically less than 9 hours a week for adults or 6 hours a week for adolescents of therapy |
| Level 2.1 Intensive Outpatient | More than 9 hours a week for adults and 6 hours a week for adolescents of therapy and encompassing services that are capable of meeting complex needs |
| Level 2.5 Partial Hospitalization | 20 or more hours of service a week but not requiring 24 hour care |
| Level 3.1 Clinically Managed Low-Intensity Residential Services | 24 hour living support with trained personnel and offers 5 hours of clinical services a week |
| Level 3.3 Clinically Managed Population-Specific High Intensity Residential Services | Adult only 24 hour care with trained counselors and capable of assisting those with cognitive or other impairments |
| Level 3.5 Clinically Managed Medium-Intensity Residential Services | 24 hour care with trained counselors with the goal of outpatient treatment and utilizing the full milieu and therapeutic communities |
| Level 3.7 Medically Monitored High-Intensity Inpatient Services | 24 hour nursing care with a physician available and counseling 16 hours a day |
| Level 4 Medically Managed Intensive Inpatient Services | 24 hour nursing care and daily physician care and available counseling |

Source: ASAM Continuum

# Potential Determinants of Demand

While previous year's services give NorthCare a reliable indication of what demand will be like in future years, NorthCare also reviews Census and WHO data to determine potential areas of concern that may impact demand in the future.

## Ethnic Groups

The Upper Peninsula, like the rest of Michigan and the U.S. is primarily Caucasian. According to Census data, 12 of the 15 counties in the Upper Peninsula are above the average percent of Caucasian population. Similarly, 12 of the 15 counties have equal or a higher percentage of American Indians than the U.S. All the counties in the Upper Peninsula are under national and state average for percentage of African Americans or other ethnicities (not represented on the chart). NorthCare requires annual cultural diversity training.

**Table 37. Census Ethnic Demographic Information (2016)**

| Board | County | % Caucasian | % African American | % American Indian |
|---|---|---|---|---|
| Copper | Baraga | 73.5 | 7.7 | 14.2 |
| | Houghton | 93.5 | 0.9 | 0.7 |
| | Keweenaw | 98.4 | 0.2 | 0.2 |
| | Ontonagon | 96.4 | 0.2 | 1.3 |
| Gogebic | Gogebic | 90.6 | 4.4 | 2.9 |
| Hiawatha | Chippewa | 71.1 | 6.8 | 15.9 |
| | Mackinac | 74.9 | 2.6 | 16.7 |
| | Schoolcraft | 86.6 | 0.3 | 9.2 |
| Northpointe | Dickinson | 96.7 | 0.5 | 0.9 |
| | Iron | 96.3 | 0.3 | 1.3 |
| | Menominee | 94.5 | 0.5 | 2.9 |
| Pathways | Alger | 84.6 | 7.3 | 4.4 |
| | Delta | 94.1 | 0.3 | 2.7 |
| | Luce | 79.7 | 11.3 | 5.3 |
| | Marquette | 93.5 | 1.7 | 1.9 |
| **Michigan** | | **79.6** | **14.2** | **0.7** |
| **United States** | | **76.9** | **13.3** | **1.3** |

## Poverty

In 2016, the U.S. Census Bureau provided the following poverty estimates (Table 38 and 39) for the counties in the Upper Peninsula as well as in Michigan and in the U.S. Some counties, including Baraga, Chippewa, Gogebic, Houghton, Iron, Ontonagon, and particularly Luce, have a significantly higher percentage of people in poverty above both Michigan

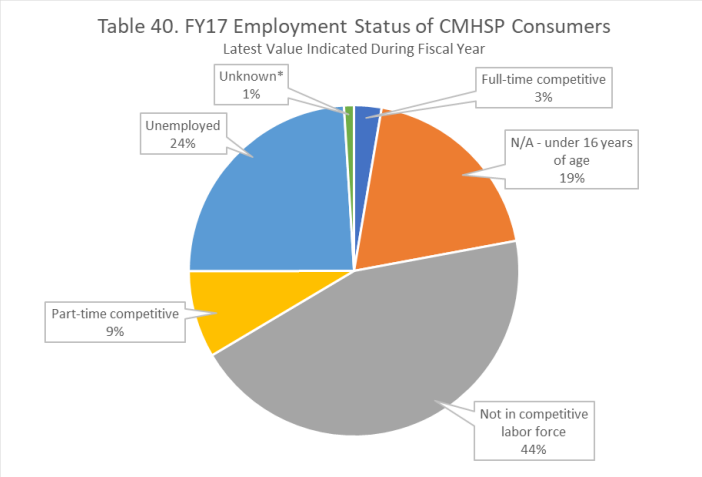
**Table 38.** *Small Area Income and Poverty Estimate (SAIPE) All Ages in Poverty 2016 - Selected State - Selected Counties*

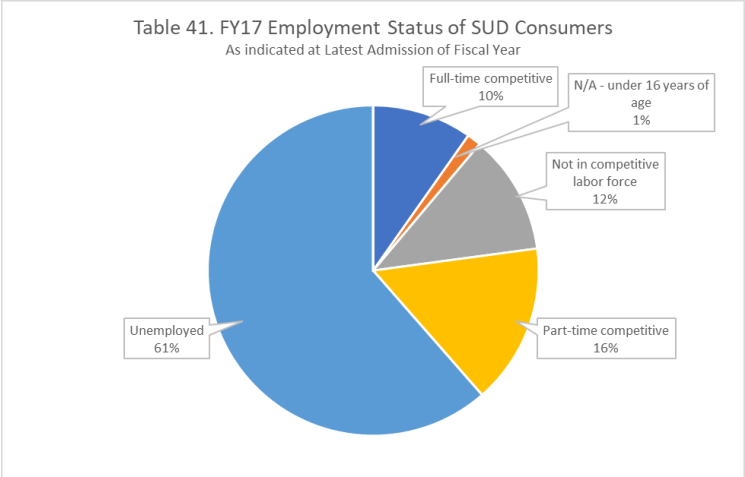
| Year | ID | Name | Poverty Universe | Number in Poverty | 90% Confidence Interval | Percent in Poverty | 90% Confidence Interval |
|---|---|---|---|---|---|---|---|
| 2016 | 00000 | United States | 315,165,470 | 44,268,996 | 44,022,086 to 44,515,906 | 14.0 | 13.9 to 14.1 |
| 2016 | 26000 | Michigan | 9,702,326 | 1,449,683 | 1,430,043 to 1,469,323 | 14.9 | 14.7 to 15.1 |
| 2016 | 26003 | Alger County (MI) | 8,212 | 1,140 | 896 to 1,384 | 13.9 | 10.9 to 16.9 |
| 2016 | 26013 | Baraga County (MI) | 7,490 | 1,235 | 985 to 1,485 | 16.5 | 13.2 to 19.8 |
| 2016 | 26033 | Chippewa County (MI) | 32,891 | 5,278 | 4,297 to 6,259 | 16.0 | 13.0 to 19.0 |
| 2016 | 26041 | Delta County (MI) | 35,597 | 5,107 | 4,296 to 5,918 | 14.3 | 12.0 to 16.6 |
| 2016 | 26043 | Dickinson County (MI) | 25,058 | 3,195 | 2,607 to 3,783 | 12.8 | 10.5 to 15.1 |
| 2016 | 26053 | Gogebic County (MI) | 13,750 | 2,809 | 2,342 to 3,276 | 20.4 | 17.0 to 23.8 |
| 2016 | 26061 | Houghton County (MI) | 33,467 | 6,762 | 5,756 to 7,768 | 20.2 | 17.2 to 23.2 |
| 2016 | 26071 | Iron County (MI) | 10,878 | 1,672 | 1,343 to 2,001 | 15.4 | 12.4 to 18.4 |
| 2016 | 26083 | Keweenaw County (MI) | 2,192 | 269 | 212 to 326 | 12.3 | 9.7 to 14.9 |
| 2016 | 26095 | Luce County (MI) | 5,229 | 1,092 | 873 to 1,311 | 20.9 | 16.7 to 25.1 |
| 2016 | 26097 | Mackinac County (MI) | 10,711 | 1,465 | 1,176 to 1,754 | 13.7 | 11.0 to 16.4 |
| 2016 | 26103 | Marquette County (MI) | 62,537 | 9,419 | 8,324 to 10,514 | 15.1 | 13.3 to 16.9 |
| 2016 | 26109 | Menominee County (MI) | 22,893 | 2,965 | 2,378 to 3,552 | 13.0 | 10.4 to 15.6 |
| 2016 | 26131 | Ontonagon County (MI) | 5,844 | 925 | 733 to 1,117 | 15.8 | 12.5 to 19.1 |
| 2016 | 26153 | Schoolcraft County (MI) | 7,854 | 1,162 | 909 to 1,415 | 14.8 | 11.6 to 18.0 |

**Table 39.** *Small Area Income and Poverty Estimate (SAIPE) Median Household Income in Dollars 2016 - Selected State - Selected Counties*

| Year | ID | Name | Median Household Income | 90% Confidence Interval |
|---|---|---|---|---|
| 2016 | 00000 | United States | $57,617 | $57,502 to $57,732 |
| 2016 | 26000 | Michigan | $52,436 | $52,038 to $52,834 |
| 2016 | 26003 | Alger County (MI) | $43,693 | $39,619 to $47,767 |
| 2016 | 26013 | Baraga County (MI) | $44,187 | $40,455 to $47,919 |
| 2016 | 26033 | Chippewa County (MI) | $43,683 | $39,973 to $47,393 |
| 2016 | 26041 | Delta County (MI) | $43,835 | $40,080 to $47,590 |
| 2016 | 26043 | Dickinson County (MI) | $46,094 | $42,134 to $50,054 |
| 2016 | 26053 | Gogebic County (MI) | $36,429 | $33,156 to $39,702 |
| 2016 | 26061 | Houghton County (MI) | $38,603 | $35,241 to $41,965 |
| 2016 | 26071 | Iron County (MI) | $38,913 | $34,965 to $42,861 |
| 2016 | 26083 | Keweenaw County (MI) | $42,799 | $38,399 to $47,199 |
| 2016 | 26095 | Luce County (MI) | $41,881 | $37,625 to $46,137 |
| 2016 | 26097 | Mackinac County (MI) | $42,887 | $39,520 to $46,254 |
| 2016 | 26103 | Marquette County (MI) | $50,681 | $48,072 to $53,290 |
| 2016 | 26109 | Menominee County (MI) | $42,306 | $39,494 to $45,118 |
| 2016 | 26131 | Ontonagon County (MI) | $35,894 | $32,954 to $38,834 |
| 2016 | 26153 | Schoolcraft County (MI) | $42,883 | $40,245 to $45,521 |

and U.S. averages. This is half of the area of Region 1. For youth, under age 18, the numbers are worse. The United States percent in poverty for youth in 2016 was 19.5%. Luce County was 28.9%. All the counties in the Upper Peninsula had a median household income below the state and federal median. While Marquette county is thriving in comparison to other parts of the Upper Peninsula, overall Region 1 has lost its main sources of industry and continued poverty levels are expected. The unemployment rate statewide was 4.6 for 2017 according to the Bureau of Labor Statistics. For NorthCare consumers, the unemployment rate is much higher (Table 40 and 41 below).



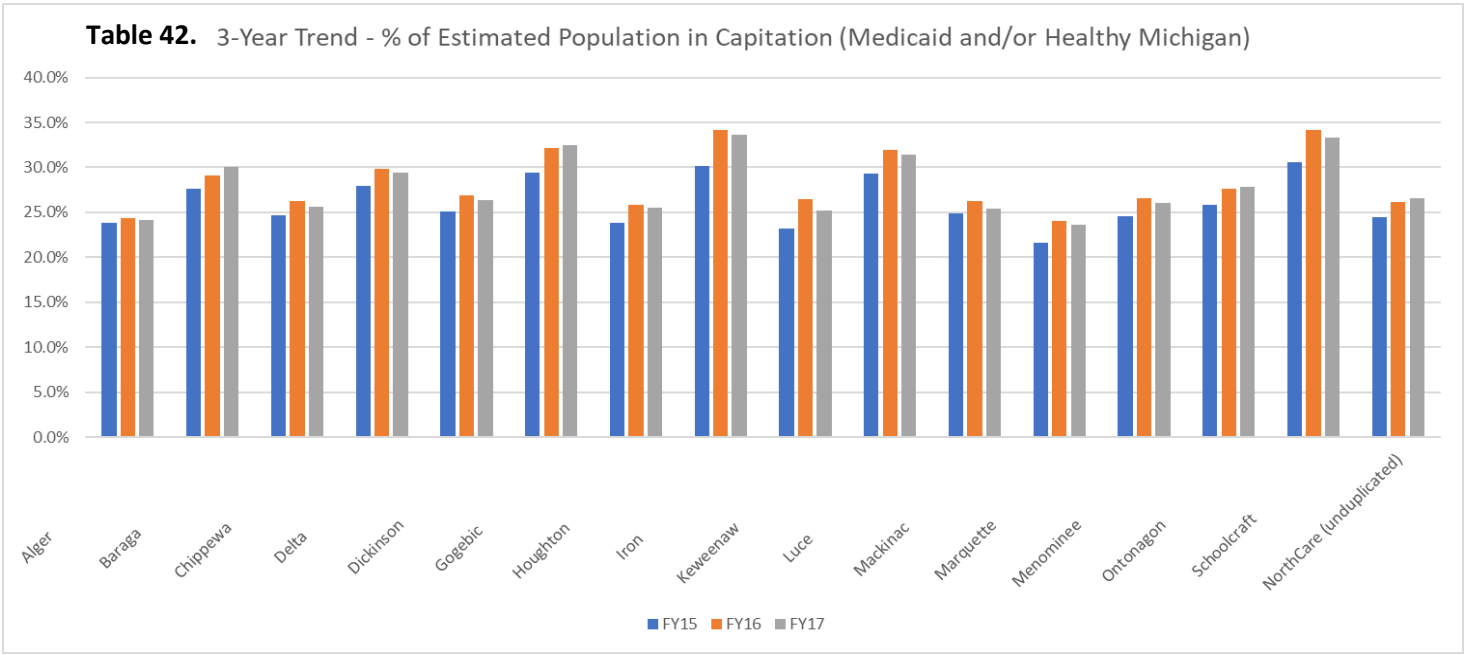

Source 40: Diver FY17 Service Model (CMHSP) Medicaid = Y / Service reportable = Yes / Employment Status Consumers were Medicaid or Healthy Michigan eligible any time in the Fiscal Year and had a reportable service. Employment Status is the most recent indicated during the Fiscal Year

Source 41: SUD Admissions Detail PCE Standard Report (SUD) Same eligibility criteria as CMHSP (Table 40), but Employment Status is that which is indicated at the most recent admission for each consumer where the admission was within the Fiscal Year.

As many of the young people tend to leave the area for better opportunities, it is likely that there will not be a major change in poverty or unemployment levels in the next couple of years. In fact, although the overall population of the Upper Peninsula is declining, the percent of the estimated population in capitation receiving Medicaid or Healthy MI is increasing from 24.5% in FY15, to 26.1% in FY16, and to 26.6% in FY17.

## Youth

While not specific to Region 1, the data in the Table 43 below is a snapshot of children in education counted in the fall of the school year. These children are served under the Individuals with Disabilities Education Act. In this chart, Developmental delay is applicable only to children age 3-9. While not a direct ratio, it is likely that a percentage of students with disabilities will be



served by the CMHSP system. Addressing concerns while still a youth will increase the likelihood of an individual leading a fulfilling life as an adult. In Michigan, 81% of students graduated high school and 67% had some sort of post-secondary education, according to the 2017 County Health Rankings.

Similarly, children in foster care are more likely to have experienced trauma and may be more likely to be involved in the CMHSP system. WHO reports that violence can lead to stress that impairs brain development. It can damage the nervous and immune systems. It could lead to physical injury, disability, or death and is associated with delayed cognitive development, poor school performance, mental health issues, suicide, and the continuation of a cycle of violence. Further, 1 in 4 adults report abuse as children and approximately 12% of children were sexually abused in the past year (WHO). While FY17 numbers are not available, the Kids Count data from the Annie E. Casey Foundation in Tables 44 and 45 reflect an unduplicated count of children in the given fiscal year where abuse or neglect was confirmed after an investigation and a corresponding rate per 1000 children age 0-17. It also shows the number of children in out of home placements due to abuse or neglect. Numbers over the past few years vary by county and across time. Some counties have increasing rates of confirmed abuse and neglect while others have decreasing rates. Gogebic county had the highest rate in the Upper Peninsula in 2016 for confirmed victims of abuse or neglect. Not all children who are abused or neglected end up placed in out of home care. Luce county had the highest rate of children out of the home due to abuse or neglect. For cells with an asterisk, the rate is negligible.

**Table 43. Number of students served under IDEA, Part B, by disability and state: Michigan 2016-17[1]**

| Age | 6 to 21 | 3 to 5 |
|---|---|---|
| All disabilities[2] | 176,766 | 21,199 |
| Autism | 17,008 | 1,698 |
| Deaf-blindness | 15 | 3 |
| Developmental delay[3] | 2,174 | 3,953 |
| Emotional disturbance | 11,144 | 35 |
| Hearing impairments | 2,261 | 280 |
| Intellectual disabilities | 17,060 | 305 |
| Multiple disabilities | 2,557 | 318 |
| Orthopedic impairments | 1,367 | 289 |
| Other health impairments | 24,650 | 908 |
| Specific learning disabilities | 60,812 | 20 |
| Speech or language impairments | 36,556 | 13,297 |
| Traumatic brain injury | 468 | 26 |
| Visual impairments | 694 | 67 |

Source: U.S. Department of Education, ED*Facts* Data Warehouse (EDW): "IDEA Part B Child Count and Educational Environments Collection," 2016-17. Data extracted July 12, 2017- file specifications 002 and 089.

**Table 44. Confirmed Victims of Abuse and/or Neglect; Age 0-17**

| County | Data Type | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| Alger | Number | 21 | 12 | 51 | 47 | 35 |
| | Rate | 13.3 | 7.7 | 34.6 | 32.3 | 24.3 |
| Baraga | Number | 24 | 25 | 18 | 25 | 27 |
| | Rate | 13.9 | 14.9 | 10.8 | 15.2 | 17 |
| Chippewa | Number | 151 | 126 | 118 | 123 | 163 |
| | Rate | 19.6 | 27.2 | 24.4 | 26.7 | 26.2 |
| Delta | Number | 94 | 86 | 81 | 139 | 202 |
| | Rate | 12.3 | 11.3 | 10.7 | 18.7 | 27.4 |
| Dickinson | Number | 90 | 103 | 80 | 81 | 70 |
| | Rate | 16.6 | 19.4 | 15.3 | 15.5 | 13.5 |
| Gogebic | Number | 45 | 52 | 74 | 72 | 96 |
| | Rate | 16.9 | 19.7 | 28.7 | 28.7 | 39.9 |
| Houghton | Number | 103 | 75 | 59 | 59 | 74 |
| | Rate | 13.9 | 10.1 | 7.9 | 7.9 | 10.1 |
| Iron | Number | 37 | 33 | 64 | 61 | 65 |
| | Rate | 18.2 | 17 | 33.2 | 32.5 | 35.2 |
| Keweenaw | Number | 5 | 2 | 1 | 1 | 1 |
| | Rate | * | * | * | * | * |
| Luce | Number | 49 | 35 | 28 | 40 | 26 |
| | Rate | 42.7 | 31.3 | 25 | 37.8 | 25.2 |
| Mackinac | Number | 46 | 38 | 30 | 48 | 48 |
| | Rate | 22.7 | 19.5 | 16 | 25.9 | 26.4 |
| Marquette | Number | 183 | 200 | 179 | 196 | 201 |
| | Rate | 14.8 | 16.2 | 14.6 | 16 | 16.7 |
| Menominee | Number | 60 | 58 | 70 | 70 | 65 |
| | Rate | 12.2 | 12.2 | 14.9 | 15 | 14.4 |
| Ontonagon | Number | 18 | 31 | 19 | 22 | 23 |
| | Rate | 18.1 | 34 | 21.7 | 26.8 | 29.5 |
| Schoolcraft | Number | 34 | 35 | 19 | 28 | 32 |
| | Rate | 20.3 | 22.1 | 12.3 | 18.8 | 22.2 |

Source Michigan Department of Health and Human Services, Children's Protective Services

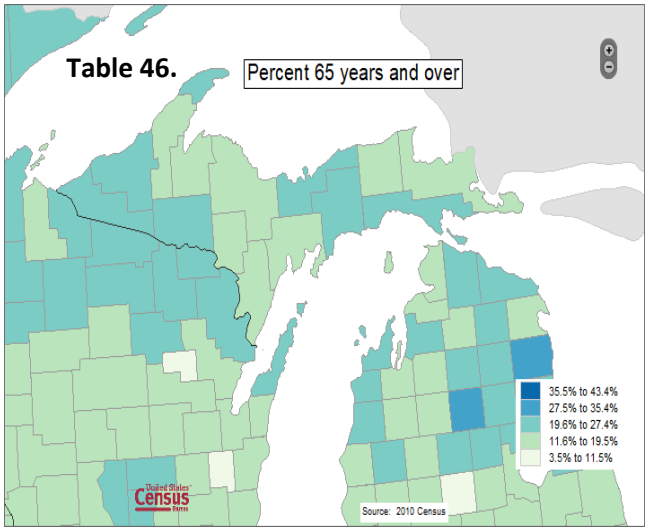
**Table 45. Children in Out of Home Care due to Abuse or Neglect**

| Location | Data Type | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| Alger | Number | 2 | 7 | 4 | 7 | 8 |
| | Rate | * | 4.5 | * | 4.8 | 5.6 |
| Baraga | Number | 10 | 13 | 9 | 8 | 10 |
| | Rate | 5.8 | 7.8 | 5.4 | 4.9 | 6.3 |
| Chippewa | Number | 39 | 26 | 29 | 44 | 40 |
| | Rate | 5.1 | 3.4 | 3.9 | 6 | 5.6 |
| Delta | Number | 25 | 18 | 19 | 32 | 51 |
| | Rate | 3.3 | 2.4 | 2.5 | 4.3 | 6.9 |
| Dickinson | Number | 45 | 62 | 43 | 31 | 34 |
| | Rate | 8.3 | 11.7 | 8.2 | 5.9 | 6.6 |
| Gogebic | Number | 28 | 21 | 15 | 26 | 48 |
| | Rate | 10.5 | 8 | 5.8 | 10.4 | 19.9 |
| Houghton | Number | 20 | 21 | 12 | 9 | 11 |
| | Rate | 2.7 | 2.8 | 1.6 | 1.2 | 1.5 |
| Iron | Number | 3 | 6 | 5 | 2 | 13 |
| | Rate | * | 3.1 | * | * | 7 |
| Keweenaw | Number | 0 | 0 | 0 | 0 | 0 |
| | Rate | * | * | * | * | * |
| Luce | Number | 6 | 46 | 36 | 30 | 22 |
| | Rate | 5.2 | 41.1 | 32.1 | 28.4 | 21.3 |
| Mackinac | Number | 17 | 15 | 18 | 18 | 18 |
| | Rate | 8.4 | 7.7 | 9.6 | 9.7 | 9.9 |
| Marquette | Number | 88 | 88 | 49 | 27 | 35 |
| | Rate | 7.1 | 7.1 | 4 | 2.2 | 2.9 |
| Menominee | Number | 25 | 25 | 31 | 30 | 23 |
| | Rate | 5.1 | 5.3 | 6.6 | 6.4 | 5.1 |
| Ontonagon | Number | 0 | 1 | 2 | 7 | 5 |
| | Rate | * | * | * | 8.5 | * |
| Schoolcraft | Number | 19 | 23 | 7 | 14 | 18 |
| | Rate | 11.3 | 14.5 | 4.5 | 9.4 | 12.5 |

Source Michigan Department of Health and Human Services, Children's Protective Services

## Aging Adults

The median age of residents in the Upper Peninsula is rising. As people age, generally their physical health begins to decline. Additionally, dementia and dementia related disorders increase. Dementia is now the 7th leading cause of death, according to WHO. It is estimated that 50 million people worldwide have dementia. Individuals diagnosed with dementia typically end up in nursing care and are served through their medical providers; however, if someone is diagnosed with dementia with behavioral disturbance, they may be seen by the CMH system. Also, treating individuals with a previously diagnosed behavioral health need who also have dementia can be increasingly difficult. In FY17, NorthCare served 63 individuals with a dementia diagnosis.

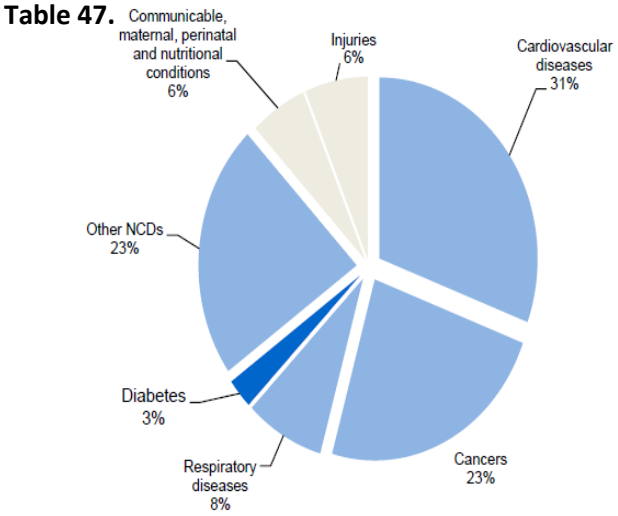



## Physical Health

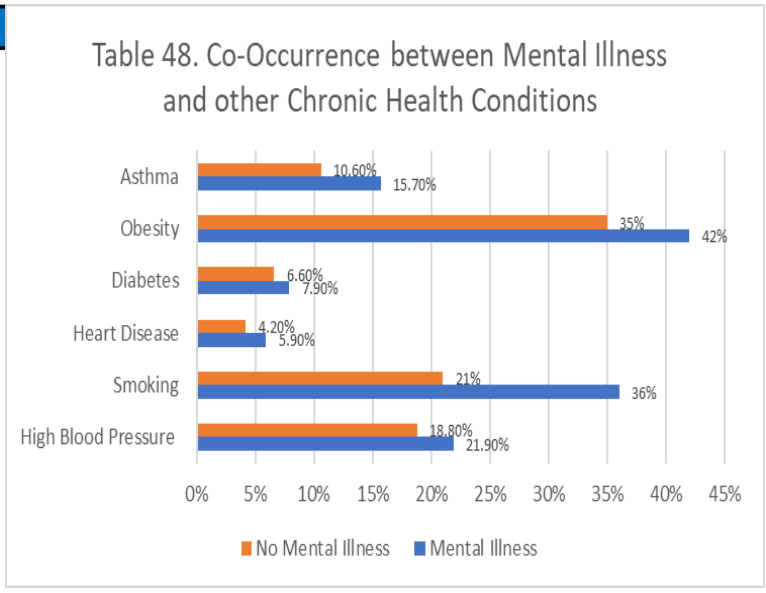
According to WHO, diabetes is directly related to 1.6 million deaths each year. In the U.S. 14.4 of every 100,000 people have diabetes. The pie graph in Table 47 represents the top causes of mortality within the United States. According to Trust for Americas Health, 11.2% of adults in MI have diabetes. Per SAMHSA, shown in Table 48 individuals with mental health issues will have diabetes at a rate of 7.9% vs the general population at 6.6%.

Obesity is another area of concern. Many psychotropic medications contribute to obesity. In the US in 2016, 39% of men and women over age 18 were overweight, according to WHO. Of children age 5-19, 18% were overweight. Michigan is the 10th ranking state for the highest adult obesity rate with 32.5% of adults being obese (Trust for Americas Health). Obesity is a cause of death for many and has been linked to diabetes, high blood pressure, high cholesterol, depression and overall poor health. Poverty is also correlated with obesity.

**Proportional mortality (% of total deaths, all ages)**



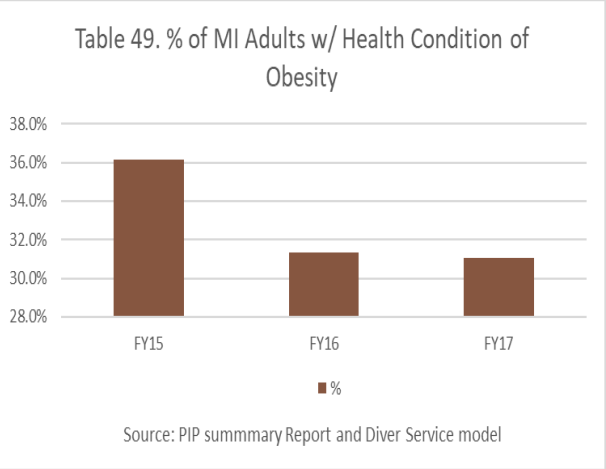

Source: WHO Diabetes Country Profiles, 2016




Source: SAMHSA Integration

NorthCare has an ongoing performance improvement project to *increase the percentage of adults with a mental illness, who indicate a medical diagnosis of obesity in the self-reported health measures, who receive Medical Nutrition Therapy service from a primary health care provider.* Baseline data was taken from FY13-14. In FY13-FY14, 32% of adults enrolled in Medicaid with a mental illness reported having a diagnosis of obesity and only 1.07% had a nutrition therapy service. Michigan Behavioral Risk Factor Survey estimates obesity levels at 31.4% in 2016 and our data shows a rate of 31.3%. In FY17, this

reduced to 31.1%. Correlated, the percent of people having a nutrition therapy service increased to 2.84% in FY17. The project will be continued in FY18.




Dental care is another important aspect of health that can cause numerous problems if not properly cared for, including heart disease, stroke, diabetes, pain, and fatal infections. Individuals with mental health diagnoses typically have an average of 6 or more decayed, filled, or missing teeth vs. the general population (St. Jean). Depression and stress increase cortisol levels which can contribute to periodontal disease. The report, "How Oral Health and Mental Health are Connected," indicates that between 2008 and 2010, more than 4 million people visited the ED for dental care. The article states, "**By 2020, mental illness and substance use disorders will surpass all physical diseases as a major cause of disability worldwide.** The side effects of the antipsychotics, antidepressants and mood stabilizers used to treat mental illness reduce the flow of saliva in the mouth, resulting in cavities, gingivitis, and periodontal disease. Gum disease has been linked to heart disease. By addressing the oral health needs of individuals living with mental illness, counties could potentially reduce their residents' risk for heart disease, a leading cause of death in the U.S." All counties in the Upper Peninsula have community dental clinics however not all the counties are currently accepting applications for the Donated Dental Program.

The Upper Peninsula Community Health Needs Assessment was started in 2015 and supported by the Superior Health Foundation and the Upper Peninsula HealthCare Roundtable. Multiple healthcare organizations were involved in the study. The main concerns identified include mental health, substance abuse, and obesity. The needs assessment identified an overall lack of awareness about mental health concerns as well as a lack of area resources to address mental health concerns. Regarding obesity, the study found that obesity rates are higher in the Upper Peninsula than the state and national averages and are increasing. For substance abuse, they found rates higher than state and national averages of substance use in the Upper Peninsula and lack of local residential rehabilitation facilities.

**Table 50.**

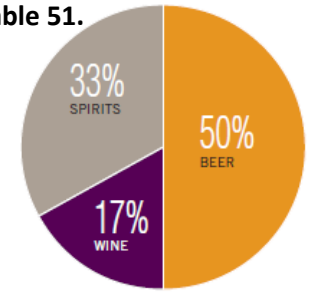
| HEALTHCARE ORGANIZATION | Mental Health | Substance Abuse | Prevention/Wellness | Community Collaboration & Awareness | Access | Diabetes | Obesity | Cancer | Teen Pregnancy | Health Insurance | Hypertension/Arthritis |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Schoolcraft Memorial Hospital | X | | X | X | X | | | | | | |
| OSF St. Francis Hospital - Delta County | X | X | | X | | X | X | | | | |
| Marquette General | X | X | X | | | | X | | | | |
| Munising Memorial | X | | X | X | X | | | | | | |
| Dickinson County Healthcare System | X | X | | | | | X | X | | | |
| Bay Area Medical - Menominee/Marinette | | X | | | X | | X | | | | |
| Western U.P. | X | X | X | | | | | | X | | X |
| Northstar - Iron County | X | X | | | | X | X | X | | X | X |
| War Memorial - Chippewa County | X | | X | X | X | | | | | | |
| Mackinac Straits Health System | X | | | | | X | X | X | | X | |
| **TOTALS** | **9** | **6** | **5** | **4** | **4** | **3** | **6** | **3** | **1** | **2** | **2** |

NorthCare lists their provider network on the website, www.northcarenetwork.org. When individuals call for services, they are provided with a list of area mental health and/or substance abuse resources as appropriate. There are also local meetings that NorthCare has representation on, including the Eastern Upper Peninsula Behavioral Health Meeting and the Mental Health Advisory Committee at UPHS-M.

## Substance Use

WHO estimates that 225 million people used illicit drugs, with cannabis being the most common. In 148 countries intravenous drug use was reported and an estimated 15.3 million have drug use disorders. Alcohol use results in 3.3 million deaths each year and in 2010, worldwide the average amount of alcohol consumed by individuals age 15 or older is 6.2 liters of pure alcohol annually. Only about 38.3% of the world population doesn't drink. Often substance use is correlated with mental health disorders.

**Table 51.**




Source: WHO: Recorded Alcohol per Capita (15+) consumption (in liters) by type, 2010.

While alcohol has long been an issue in the Upper Peninsula, opiates are now a significant concern. TBD solutions trended data regarding overdoses via opiates and heroin. While data is only as recent as 2015, it shows a downward trend for use of heroin in Region 1, but significant uptick in overdoses due to opioids. When broken down by county, in Table 53, it's evident that in all counties except Marquette, Menominee and Houghton the staggering increase in opioid overdoses per 1000 in the population. Current numbers are higher than they have been since 2009. Assuming this 'J curve' continues an upward trend, the numbers may reflect what many are already calling the "opioid epidemic."

**Table 52.**

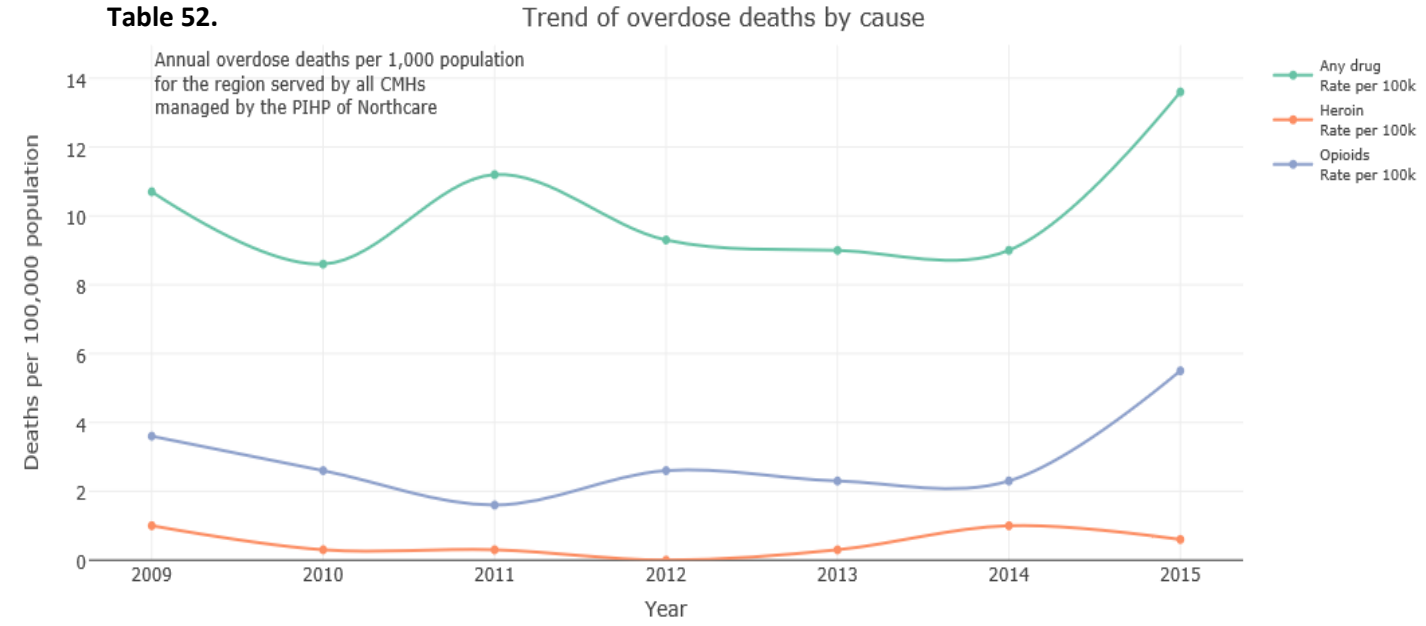
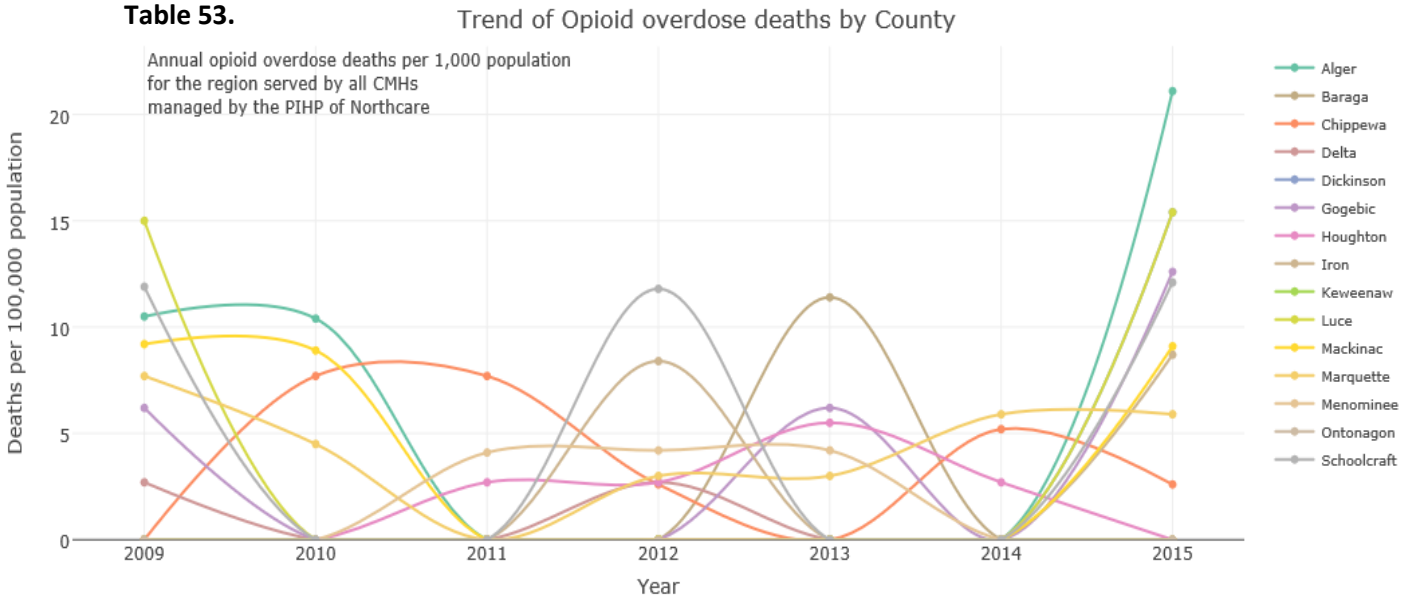



**Table 53.**



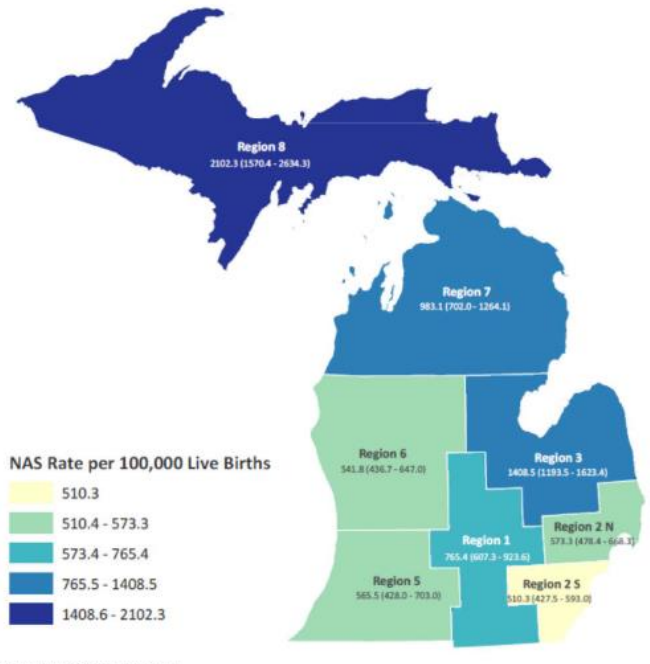
Additionally, opiates are impacting the youngest Upper Peninsula residents. The number of infants with Neonatal Abstinence Syndrome (NAS) has increased substantially over the years and is expected to have continued this same trend. The Upper Peninsula has the highest rates of NAS and is much higher than the state average. A report about NAS in 2016 shows the impact opiates are having on the Upper Peninsula. While the data range ends in 2014, it is expected that the trend line continues at a similar rate.

As evidenced in the graphs, the Upper Peninsula had a rate significantly higher than the state average for the number of NAS births and that the rate within our region has steadily increased since 2011. Interestingly, the northern lower peninsula which is also a rural area has the second highest rate of NAS births.

Overall, there are many factors that impact potential demand. The Michigan Behavioral Risk Factor Survey estimates, Table 56, show how the Upper Peninsula compares to the state regarding mental health, physical health, weight/obesity, alcohol consumption and smoking. To note in the table below, the Upper Peninsula used to have a much lower percentage of adults reporting poor mental health than the state, however it increased significantly between 2012 and 2016. Now there is even a greater percentage of adults who have been told they have a depressive disorder in the Upper Peninsula than the state. Physical health, weight, and smoking appear to have remained stable over the years; and the percentage of people diagnosed with diabetes and cardiovascular diseases remains higher in the Upper Peninsula than in the state. The Upper Peninsula has shown a reduction in the percentage of adults who binge drink or drink heavily over the years. While this is a positive trend, alcohol consumption is still a concern in the area. That, in addition to the opiate concerns, will likely increase future prevention efforts with a focus on both alcohol and opiate use.

**Incidence of Neonatal Abstinence Syndrome (NAS) by Perinatal Region**
Michigan, 2014

**Table 54.**




*Prepared by the MCH Epidemiology Section*
*Data Source: MDHHS Division for Vital Records and Health Statistics. Michigan Resident Live Birth File linked to the Michigan Inpatient Hospital Database, 2014. Michigan Resident Inpatient Files, created using data from the Michigan Inpatient Database obtained with permission from the Michigan Health & Hospital Association Service Corporation*
*Neonatal Abstinence Syndrome Symptomatic and needed pharmacologic treatement (ICD9 779.5)*

**Table 55.** Neonatal Abstinence Syndrome Rate per 100,000 Births Michigan - Perinatal Region 8

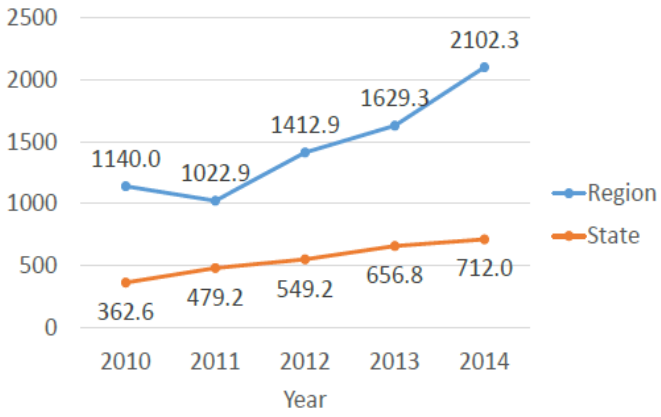



Table 54 and 55. Source: The Burden of NAS in MI. Presentation materials from Michigan Resident Inpatient Files, created using data from Michigan Inpatient Database with permission from Michigan Health and Hospital Association Service Corporation.

**Table 56.**

**Selected Fields from Michigan BRFS Estimates for Selected Risk Factors and Health Indicators by Emergency Preparedness Region**

| | Region | 2012 | 2013 | 2014 | 2013-2015* | 2014-2016* |
|---|---|---|---|---|---|---|
| **Mental Health** | | | | | | |
| % of adults who reported 14 or more days of poor mental health during the past 30 days | Michigan | 13.0% | 12.0% | 12.9% | 12.2% | 16.2% |
| | Upper Peninsula | 5.6% | 10.5% | 14.6% | 11.8% | 15.2% |
| Mean number of days during the past 30 days in which mental health was not good | Michigan | 4.1 | 3.9 | 4.1 | 3.9 | 4.1 |
| | Upper Peninsula | 2.4 | 3.5 | 4.2 | 3.6 | 3.9 |
| % adults who reported ever being told by a doctor that they had a depressive disorder | Michigan | 20.6% | 21.3% | 10.4% | 20.5% | 20.7% |
| | Upper Peninsula | 15.5% | 21.2% | 11.8% | 23.0% | 24.3% |
| **Physical Health Conditions** | | | | | | |
| % adults who reported that they did not have a routine checkup in the past year | Michigan | 33.5% | 30.1% | 28.2% | 28.8% | 27.7% |
| | Upper Peninsula | 35.9% | 31.0% | 27.7% | 27.3% | 27.9% |
| % of adults who reported that they were ever told by a doctor that they had diabetes | Michigan | 10.5% | 10.4% | 10.4% | 10.5% | 10.8% |
| | Upper Peninsula | 12.6% | 9.9% | 11.8% | 11.7% | 12.6% |
| % of adults who were ever told by a doctor that they had any cardiovascular disease | Michigan | 9.9% | 10.1% | 10.0% | 9.7% | 9.7% |
| | Upper Peninsula | 10.2% | 11.9% | 12.2% | 11.4% | 10.8% |
| **Weight Status** | | | | | | |
| % adults with BMI of 30.0 or more (Obese) | Michigan | 31.1% | 31.5% | 30.7% | 31.1% | 31.4% |
| | Upper Peninsula | 27.3% | 32.9% | 28.8% | 31.2% | 31.4% |
| % adults with BMI 25.0 to 30.0 (Overweight) | Michigan | 34.6% | 34.7% | 34.9% | 34.9% | 35.0% |
| | Upper Peninsula | 33.5% | 34.9% | 33.6% | 33.3% | 32.7% |
| % adults with BMI 18.5 to 25.0 (Healthy Weight)*** | Michigan | 32.8% | 32.5% | 32.5% | 32.4% | 31.9% |
| | Upper Peninsula | 33.3% | 30.9% | 36.1% | 33.9% | 34.3% |
| **Alcohol Consumption** | | | | | | |
| % adults who reported consuming an average of more than 2 (men) or more than 1 (women) alcoholic drinks per day (Heavy Drinking) | Michigan | 6.1% | 6.2% | 6.8% | 6.5% | 6.7% |
| | Upper Peninsula | 8.7% | 9.6% | 7.4% | 7.5% | 6.0% |
| % adults who reported consuming an 5 or more (men) or 4 or more (women) alcoholic drinks per occasion at least once a month (Binge Drinking) | Michigan | 19.2% | 18.9% | 18.9% | 18.8% | 18.8% |
| | Upper Peninsula | 21.5% | 22.4% | 19.4% | 19.5% | 17.1% |
| **Smoking** | | | | | | |
| % adults who reported that they have smoked at least 100 cigarettes in their life and smoke now (Current Smoking) | Michigan | 23.3% | 21.4% | 21.2% | 21.1% | 20.8% |
| | Upper Peninsula | 21.7% | 19.8% | 22.2% | 20.4% | 20.8% |
| % adults who reported they have smoked at least 100 cigarettes in their life but do not smoke now (Former Smoking) | Michigan | 25.8% | 27.0% | 26.7% | 26.7% | 26.2% |
| | Upper Peninsula | 30.5% | 32.6% | 30.6% | 30.9% | 30.1% |
| % adults who reported they never smoked (Never Smoking) | Michigan | 50.9% | 51.6% | 52.1% | 52.2% | 53.0% |
| | Upper Peninsula | 47.8% | 47.5% | 47.3% | 48.8% | 49.2% |
| % adults who reported during the past 12 months that they had tried to quit smoking for 1 day or longer | Michigan | 64.3% | 62.7% | 61.5% | 62.3% | 61.0% |
| | Upper Peninsula | 64.4% | 52.3% | ** | 55.1% | 56.5% |

**Source: Michigan BRFS Regional and Local Health Department Tables: Estimates by Emergency Preparedness Region**

**https://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html**

* Two most current datasets combine a three-year period to allow for a larger sample size.

** Suppressed due to a denominator < 50 and/or a relative standard error > 30%

*** Indicated as "Normal Weight" in 2012 Mi BRFSS data set

# Conclusion

Since the inception of Prepaid Inpatient Health Plans in 2002, NorthCare has been striving to provide efficient and effective treatment to eligible consumers within Region 1 through effective utilization management. Services are contracted with the CMHSP's, SUD providers, inpatient hospitals, Gryphon and Dial Help crisis service providers, and community providers through the MI Health Link program. Oversight is achieved through a variety of committees.

While the total population in the Upper Peninsula is declining, the number of older adults is increasing. The number of approved intakes also continues to increase. The CMHSP's are managing the waiting lists to provide services to as many eligible individuals as possible and ensure that an eligible individual with Medicaid is never put on a waiting list. Of those consumers in services, NorthCare is meeting the Mission Based Performance Standards most of the time and rarely are out of compliance two quarters in a row. Issues are addressed through the appropriate committee.

Finding available beds for inpatient psychiatric hospitalization continues to be an issue across the state of Michigan. An online hospital denial tracking database was developed in FY17 to better understand the frequency of this occurrence. Single case agreements were developed for hospitals that NorthCare did not contract with, including hospitals downstate or in neighboring states. Additional contracts are being considered in FY18. A statewide bed registry is also being considered for FY18. This may alleviate excessive calling to find a bed, but it will not increase the total number of beds available.

Integrated Health Care initiatives continued in FY17 and a greater number of consumers utilized this service. Coordination continues with the Upper Peninsula Health Plan on shared members and the MI Health Link program continues to grow. Emphasis was placed on the role of physical health care in relation to mental health and substance use disorders. NorthCare is continuing with a performance improvement project to *increase the percentage of adults with a mental illness, who indicate a medical diagnosis of obesity in the self-reported health measures, who receive Medical Nutrition Therapy service from a primary health care provider.* Additional performance improvement projects will be addressed in FY18.

The barrier of transportation had been identified and addressed through the transportation grant. The grant will continue in FY18 and FY19. Sustainability of this service will be developed in FY19. Additionally, a Veteran Navigator was implemented in FY17 to assist Veterans in determining what services they are eligible for and aide in navigating complex systems so Veterans receive the care they need. This will be further developed in FY18.

It has been identified that not all the jail diversion work is being captured in the data, mostly due to the inability to flag various types of contact notes. This will be addressed in the electronic medical record FY18 to more accurately reflect the data.

Co-occurring services continue to need bolstering within the CMHSP system. Training will occur in FY18 on co-occurring disorders across the region, as well as implemented recovery oriented trainings and policies. Substance abuse continues to rise, especially opiate use, and is impacting the community at large. Due to the opiate crisis and infants being born with Neonatal Abstinence Syndrome, prevention efforts remain crucial. SUD providers are also working to better achieve compliance with the Mission Based Performance Indicators and additional residential substance use treatment contracts will be considered for FY18. While NorthCare strives toward integration of MH and SUD services, funding streams, reporting requirements, and data capturing are often comprised of different processes, creating barriers to true integration.

There are some area's that NorthCare cannot impact regarding demand; namely, number of inpatient service providers; especially psychiatrists. Within our reach however, NorthCare should be able to meet demand and will work to address the above noted concerns through policy, advocacy, and training. It is NorthCare's mission to **ensure that every eligible recipient receives quality specialty mental health and substance use disorder services and supports through the responsible management of regional resources**.

NorthCare will continue tracking utilization and demographic trends. Progress and concerns will be reported in the annual newsletter, annual performance report, on the website and through this annual report. We rely on our partners to tell us where we have failed to meet the demand. Please contact NorthCare Network Customer Service at 888-333-8030 with concerns.

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DIVER Reporting

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Inpatient Denial Database

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# Appendix 1

| 2014 | | | | | | | | 2015 | | | | | | | | 2016 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Population | Persons under 5 years | | Persons under 18 years | | Persons 65 years and over | | Median Age | Total Population | Persons under 5 years | | Persons under 18 years | | Persons 65 years and over | | Median Age | Total Population | Persons under 5 years | | Persons under 18 years | | Persons 65 years and over | | Median Age |
| | % | # | % | # | % | # | | | % | # | % | # | % | # | | | % | # | % | # | % | # | |
| 54124 | 5.0% | 2685 | 19.2% | 10389 | 17.8% | 9642 | | 53846 | 4.9% | 2640 | 18.8% | 10118 | 18.4% | 9935 | | 53537 | 4.8% | 2560 | 18.8% | 10065 | 18.9% | 10134 | |
| 8740 | 4.5% | 393 | 17.2% | 1503 | 17.5% | 1530 | 43.2 | 8690 | 4.7% | 408 | 16.0% | 1390 | 18.4% | 1599 | 43.6 | 8612 | 4.7% | 405 | 17.0% | 1464 | 18.7% | 1610 | 43.1 |
| 36739 | 5.5% | 2021 | 20.6% | 7568 | 15.3% | 5621 | 32.9 | 36660 | 5.4% | 1980 | 20.4% | 7479 | 15.7% | 5756 | 32.8 | 36565 | 5.3% | 1938 | 20.3% | 7423 | 16.1% | 5887 | 33 |
| 2197 | 4.1% | 90 | 18.0% | 395 | 27.7% | 609 | 53.2 | 2198 | 4.0% | 88 | 17.0% | 374 | 29.7% | 653 | 54.5 | 2195 | 3.7% | 81 | 16.6% | 364 | 31.1% | 683 | 55.1 |
| 6448 | 2.8% | 181 | 14.3% | 922 | 29.2% | 1883 | 54.8 | 6298 | 2.6% | 164 | 13.9% | 875 | 30.6% | 1927 | 55.6 | 6165 | 2.2% | 136 | 13.2% | 814 | 31.7% | 1954 | 56.6 |
| 16042 | 4.1% | 658 | 16.0% | 2567 | 22.6% | 3625 | | 15824 | 3.9% | 617 | 15.7% | 2484 | 22.9% | 3624 | | 15650 | 3.9% | 610 | 15.7% | 2457 | 23.3% | 3646 | |
| 16042 | 4.1% | 658 | 16.0% | 2567 | 22.6% | 3625 | 48 | 15824 | 3.9% | 617 | 15.7% | 2484 | 22.9% | 3624 | 48.3 | 15650 | 3.9% | 610 | 15.7% | 2457 | 23.3% | 3646 | 48.5 |
| 58123 | 5.0% | 2931 | 19.6% | 11400 | 18.0% | 10474 | | 57918 | 5.0% | 2912 | 19.4% | 11255 | 18.5% | 10728 | | 57514 | 4.6% | 2637 | 18.6% | 10686 | 19.1% | 10990 | |
| 38698 | 5.4% | 2090 | 20.3% | 7856 | 15.3% | 5921 | 39 | 38586 | 5.4% | 2084 | 20.2% | 7794 | 15.8% | 6097 | 39 | 38330 | 4.9% | 1878 | 19.1% | 7321 | 16.2% | 6209 | 39.8 |
| 11080 | 4.2% | 465 | 17.6% | 1950 | 24.0% | 2659 | 50.3 | 11044 | 4.2% | 464 | 17.3% | 1911 | 24.6% | 2717 | 50.9 | 10998 | 3.7% | 407 | 16.6% | 1826 | 25.6% | 2815 | 51.7 |
| 8345 | 4.5% | 376 | 19.1% | 1594 | 22.7% | 1894 | 49.6 | 8288 | 4.4% | 365 | 18.7% | 1550 | 23.1% | 1915 | 50 | 8186 | 4.3% | 352 | 18.8% | 1539 | 24.0% | 1965 | 50.4 |
| 61550 | 4.7% | 2901 | 19.7% | 12145 | 21.4% | 13161 | | 61236 | 4.6% | 2814 | 19.4% | 11887 | 21.8% | 13370 | | 60850 | 4.5% | 2748 | 19.2% | 11694 | 22.5% | 13685 | |
| 26097 | 5.0% | 1305 | 20.7% | 5402 | 19.6% | 5115 | 46.2 | 26012 | 4.9% | 1275 | 20.3% | 5280 | 20.0% | 5202 | 46.4 | 25889 | 4.8% | 1243 | 20.2% | 5230 | 20.7% | 5359 | 46.5 |
| 11615 | 4.3% | 499 | 16.8% | 1951 | 27.2% | 3159 | 52.9 | 11507 | 4.1% | 472 | 16.6% | 1910 | 27.9% | 3210 | 53.3 | 11393 | 3.9% | 444 | 16.4% | 1868 | 28.4% | 3236 | 53.5 |
| 23838 | 4.6% | 1097 | 20.1% | 4791 | 20.5% | 4887 | 47.2 | 23717 | 4.5% | 1067 | 19.8% | 4696 | 20.9% | 4957 | 47.5 | 23568 | 4.5% | 1061 | 19.5% | 4596 | 21.6% | 5091 | 47.8 |
| 120404 | 4.9% | 5856 | 18.7% | 22492 | 17.7% | 21263 | | 120247 | 4.9% | 5895 | 18.6% | 22408 | 18.2% | 21828 | | 119835 | 4.8% | 5798 | 18.6% | 22249 | 18.7% | 22459 | |
| 9516 | 3.3% | 314 | 15.8% | 1504 | 22.3% | 2122 | 48.3 | 9476 | 3.4% | 322 | 15.7% | 1488 | 22.9% | 2170 | 48.7 | 9396 | 3.5% | 329 | 15.6% | 1466 | 23.4% | 2199 | 49 |
| 36841 | 5.1% | 1879 | 20.4% | 7516 | 20.2% | 7442 | 46.3 | 36712 | 5.2% | 1909 | 20.5% | 7526 | 20.6% | 7563 | 46.4 | 36570 | 5.2% | 1902 | 20.5% | 7497 | 21.2% | 7753 | 46.6 |
| 6512 | 4.4% | 287 | 17.1% | 1114 | 18.9% | 1231 | 45.2 | 6477 | 4.4% | 285 | 16.9% | 1095 | 19.8% | 1282 | 44.3 | 6451 | 4.1% | 264 | 16.8% | 1084 | 20.4% | 1316 | 44.5 |
| 67535 | 5.0% | 3377 | 18.3% | 12359 | 15.5% | 10468 | 39.3 | 67582 | 5.0% | 3379 | 18.2% | 12300 | 16.0% | 10813 | 39.1 | 67418 | 4.9% | 3303 | 18.1% | 12203 | 16.6% | 11191 | 38.9 |
| **310243** | **4.8%** | **15030** | **19.0%** | **58992** | **18.7%** | **58165** | | **309071** | **4.8%** | **14878** | **18.8%** | **58152** | **19.2%** | **59484** | | **307386** | **4.7%** | **14353** | **18.6%** | **57150** | **19.8%** | **60915** | |