DEPRESSION CARE IN MINNESOTA

2018 REPORT

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MN Community MEASUREMENT
Measure Up To Better Health

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ONLINE APPENDICES

Who is MN Community Measurement?

MN Community Measurement (MNCM) is a non-profit organization that empowers the community with data and information to drive improvement in health care cost and quality. MNCM was formed as a community resource where all health care stakeholders – whether they buy, manage, provide, deliver, oversee, or consume health care – come together and mutually invest in improvement for a better tomorrow.

MNCM specializes in developing, collecting, analyzing, and publicly reporting information on health care quality, cost, and patient experience. Founded in 2005, our multi-stakeholder collaborative includes physicians, hospitals and health systems, health plans, employers, consumers, and state government.

MNCM strives to deliver data and information that is timely, actionable, and relevant for each stakeholder in the community to fulfill their role in advancing improvement and affordability.

REPORT PREPARATION DIRECTION

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INTRODUCTION

Depression is one of the most common and treatable mental disorders in the United States.

» In 2016, over 16 million adults in the US (7%) experienced at least one episode of major depression in the past year.[1]

» Depression is associated with higher mortality rates in all age groups. People who are depressed are 30 times more likely to take their own lives than people who are not depressed and five times more likely to abuse drugs.[2]

» Annually, U.S. workers diagnosed with depression miss an additional 68 million days, or an additional 4.6 days per individual diagnosed with depression as compared to workers who have never been diagnosed with depression. This loss of productivity is estimated at more than $23 billion per year.[3]

Major depression is also a common mental disorder affecting adolescents.

» In 2016, over 3 million adolescents aged 12 to 17 (13%) had at least one major depressive episode.[4]

» Many mental health conditions (anxiety, bipolar, depression, eating disorders, and substance abuse) are evident by age 14.[5] Adolescent-onset depression is associated with chronic depression in adulthood.[6]

» In Minnesota, nearly 10% of adolescents who were screened for depression or other mental health conditions, screened positively.[7]

Measuring Outcomes for Adolescents

Adolescents (age 12–17) will be included in the depression outcome measures of remission and response beginning with data submitted in 2020.

MNCM has been collecting and publishing depression outcomes since 2009.

Depression is an important focus for measurement because of the large numbers of adult patients with this chronic episodic condition and known gaps in care related to follow-up and treatment. Patients with depression, an isolating condition, are less capable of reaching out, keeping appointments, and maintaining a connection with their provider compared to patients with other conditions. Maintaining proactive contact (in person, phone or other mode) is key to recovery and improved outcomes.

Depression remission rates, as measured by MN Community Measurement (MNCM), tend to be low in part because many patients are still lost to follow-up. Frequent monitoring of depression symptoms correlates with improved effectiveness of medications and treatment and helps prevent relapse. While there are many factors that can influence successful follow-up and treatment of depression, medical groups with higher outcome rates find that a team-based approach incorporates frequent assessment, consistent follow-up, and care coordination to be effective.

According to the Institute of Medicine's report on mental and emotional health in children, the use of prevention and early intervention can effectively delay or prevent emotional, mental or developmental disorders.[8] A systems approach can impact the efficacy that screening for depression has by supporting appropriate follow-up and

treatment for those identified.[9] Untreated mental health issues can lead to more serious consequences.[10] Because screening for depression and other mental health issues was not consistently occurring in the adolescent population, it was selected as a focus for measurement in Minnesota. Adolescents (12–17) will be included in the depression outcome measures of remission and response beginning with data submitted in 2020.

This report reflects data submitted to MN Community Measurement in 2018.

Key findings include:

- Depression response and remission rates remain relatively low, and improvement has been slow. One reason is that many patients with depression aren't receiving the necessary follow-up assessment, and missed follow-up affects the rates for all outcome measures.
- Despite low statewide average rates of depression response and remission, there are noteworthy bright spots with several medical groups and clinics achieving significantly better outcomes.
- Follow-up rates are lower for patients with severe depression, patients living outside of metro areas, and for males; however, results also show that response and remission are generally similar regardless of geography or gender.
- Follow-up, response, and remission are highest for people age 60 and older, and all consistently improve with age.
- Follow-up and outcome rates vary by race, Hispanic Ethnicity, preferred language and country of origin. In general, follow-up and outcomes are better for people who identify as Asian, Multi-Racial, Native Hawaiian, White and Not Hispanic as well as for people who speak English.
- Mental health and/or depression screening rates for adolescents have significantly improved since 2015 and have shown considerable improvement every year.
- There are minimal differences in adolescent screening rates by gender, race, preferred language or country of origin; however, adolescents in the American Indian racial group and adolescents born in Mexico have the lowest mental health and/or depression screening rates.
- Adolescents in the metropolitan areas have the highest screening rates.

Measure Descriptions

Adult Depression

PROCESS MEASURES *(assessing symptoms)*

- PHQ-9 Utilization: The percentage of patients with a diagnosis of Major Depression or Dysthymia who also have a completed PHQ-9 tool during the measurement period. This measure determines the PHQ-9 tool use rate for patients with Major Depression or Dysthymia.
- PHQ-9 Follow-up at 6 Months: The percentage of patients with depression who have a completed PHQ-9 tool within six months after the index event (+/- 30 days).
- PHQ-9 Follow-up at 12 Months: The percentage of patients with depression who have a completed PHQ-9 tool within 12 months after the index event (+/- 30 days).

OUTCOME MEASURES *(improvement in symptoms)*

- 6 Month Response: The percentage of patients with depression who demonstrated a response to treatment (at least 50 percent improvement) six months after the index event (+/- 30 days).
- 12 Month Response: The percentage of patients with depression who demonstrated a response to treatment (at least 50 percent improvement) 12 months after the index event (+/- 30 days).

OUTCOME MEASURES *(absence of symptoms)*

- 6 Month Remission: The percentage of patients with depression who reached remission (PHQ-9 score less than five) six months after the index event (+/- 30 days).
- 12 Month Remission: The percentage of patients with depression who reached remission (PHQ-9 score less than five) 12 months after the index event (+/- 30 days).

Adolescent Depression

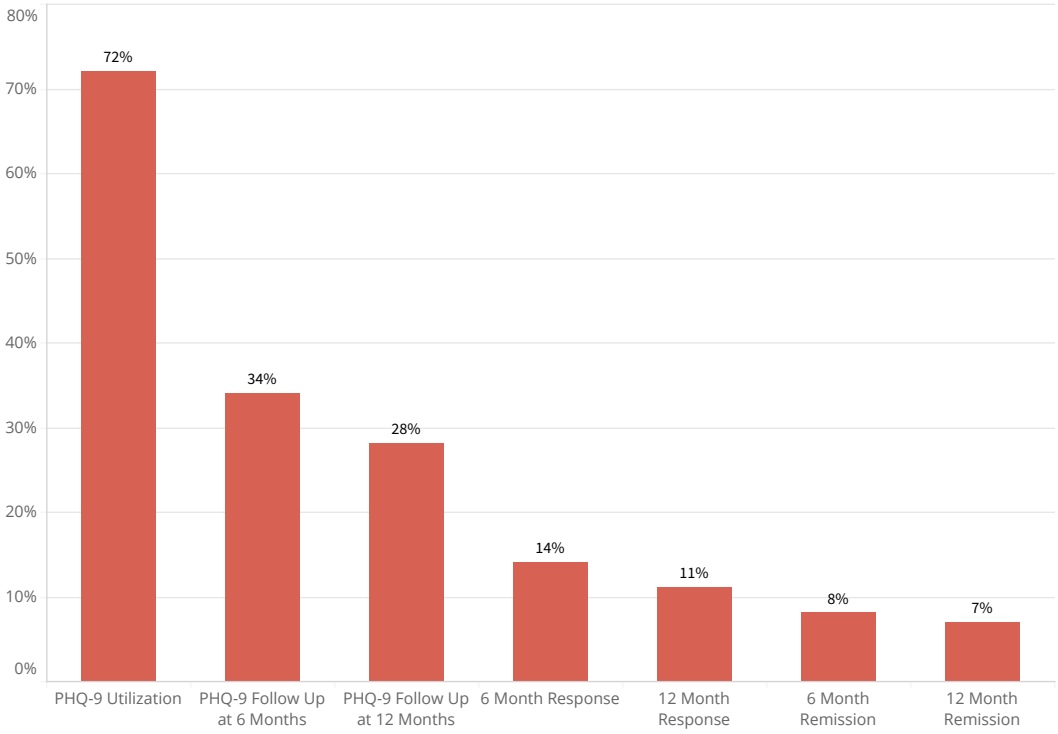
PROCESS MEASURE *(assessing symptoms)*

- Adolescent Mental Health and/or Depression Screening: The percentage of patients ages 12-17 who were screened for mental health and/or depression at a well-child visit using a specified tool.

ADULT DEPRESSION

MNCM's adult depression measures are a suite of measures – three process measures and four outcome measures. Over 209,000 adults with an active diagnosis of depression completed a PHQ-9 assessment tool during the measurement period. The outcome measures reflect over 110,000 adult patients with depression meeting denominator criteria which includes an elevated PHQ-9 indicating the need for treatment. The charts present results at a statewide level, trend over time, and illustrate variation across medical groups. Results are also segmented by depression severity, geography, age, gender, race, Hispanic ethnicity, preferred language and country of origin. Detailed results by medical group and clinic are available in the online appendix to this report, and at *mnhealthscores.org*.

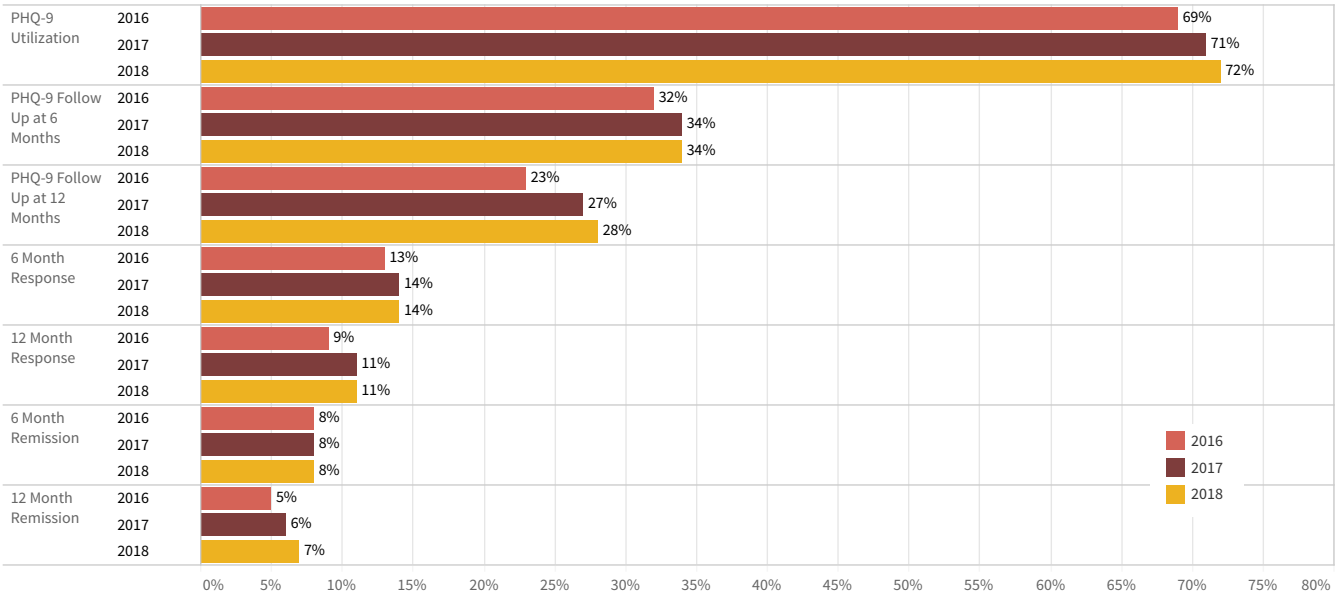
Adult Depression Measures: Statewide Rates



Most medical groups in Minnesota are administering the PHQ-9 tool to their patients who have depression; however, follow-up rates are low which translates to low response and remission outcomes.

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Adult Depression Measures: Trend

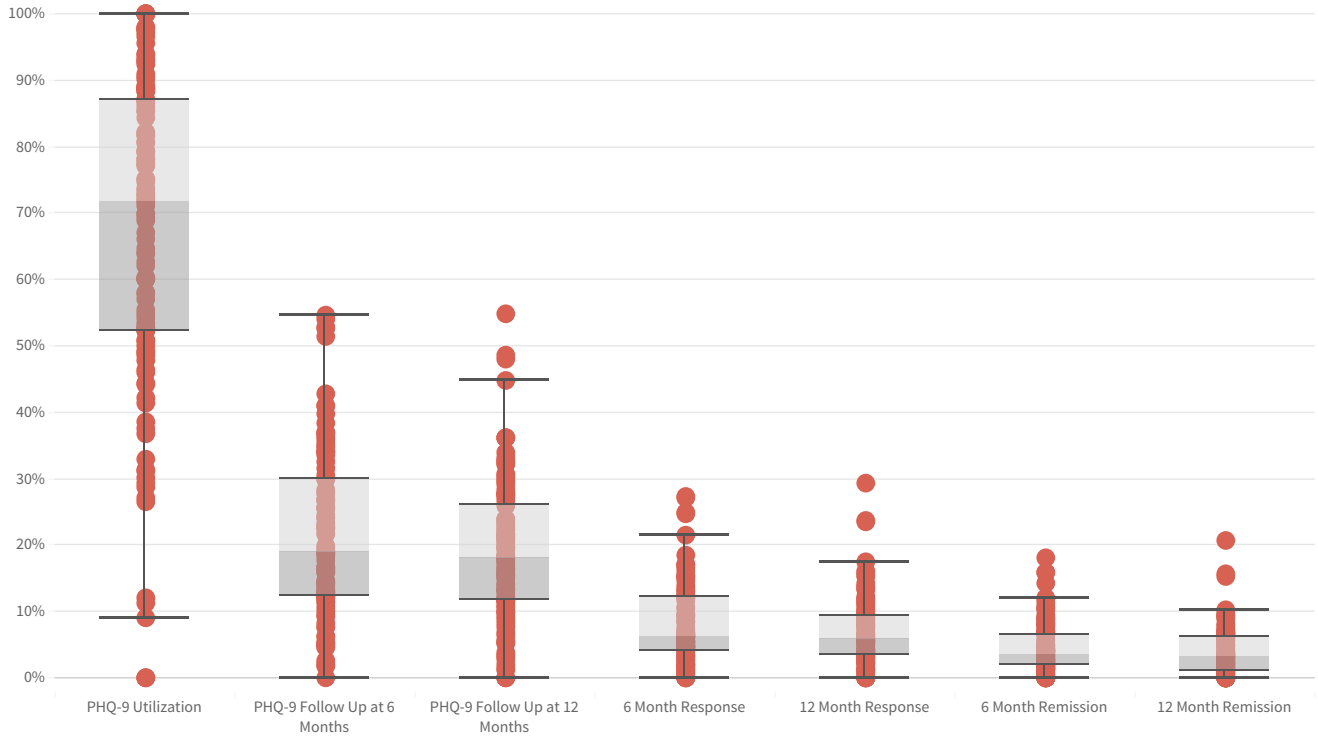


While administration of the PHQ-9 tool has improved over the last three years, follow-up with patients has only improved slightly since 2016 and remains flat compared to last year. Three of the four outcome measures have shown slight improvement since 2016, but outcome rates remain low.

Total number of patients:
2016 = 80,362
2017 = 113,327
2018 = 110,534

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Adult Depression Measures: Variation by Medical Group

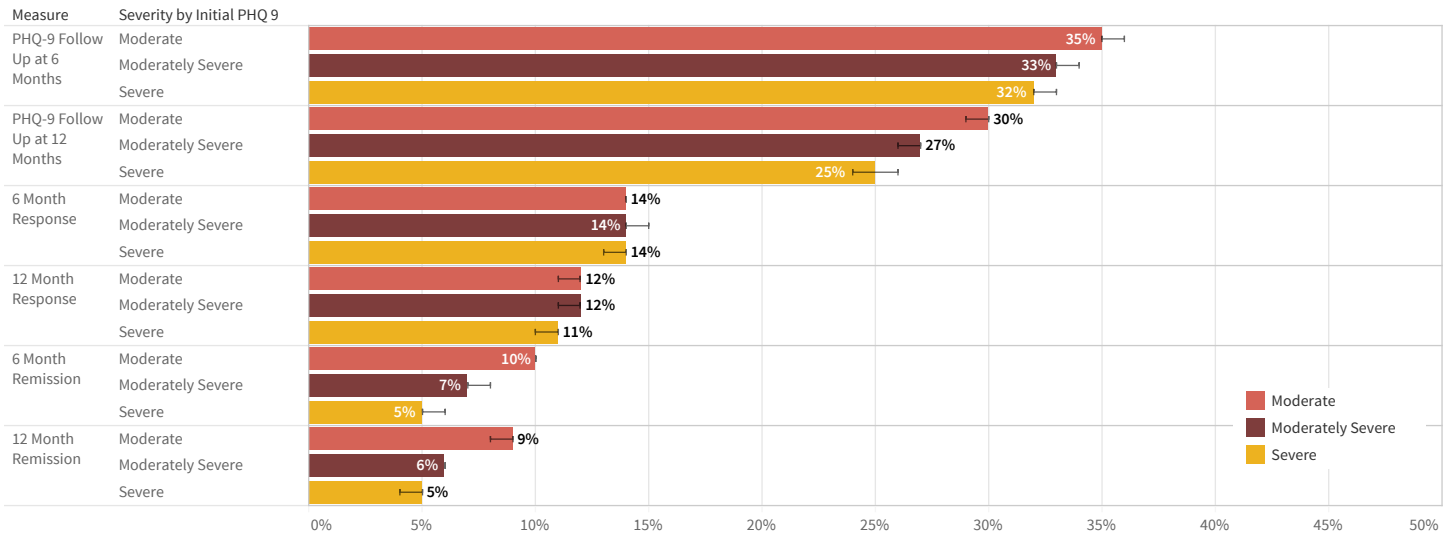


Total number of patients = 110,534

There is more variation in medical group performance for the process measures than for the depression outcome measures. The utilization measure ranges from 0% to 100%; the depression follow-up measures range from 0% to over 50%. For the depression response and remission rates, the range of medical group performance is narrower. And while rates are lower, there are notable outliers with high performance. Rates for individual medical groups and clinics are included in the online appendix to this report.

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Adult Depression Measures by Severity

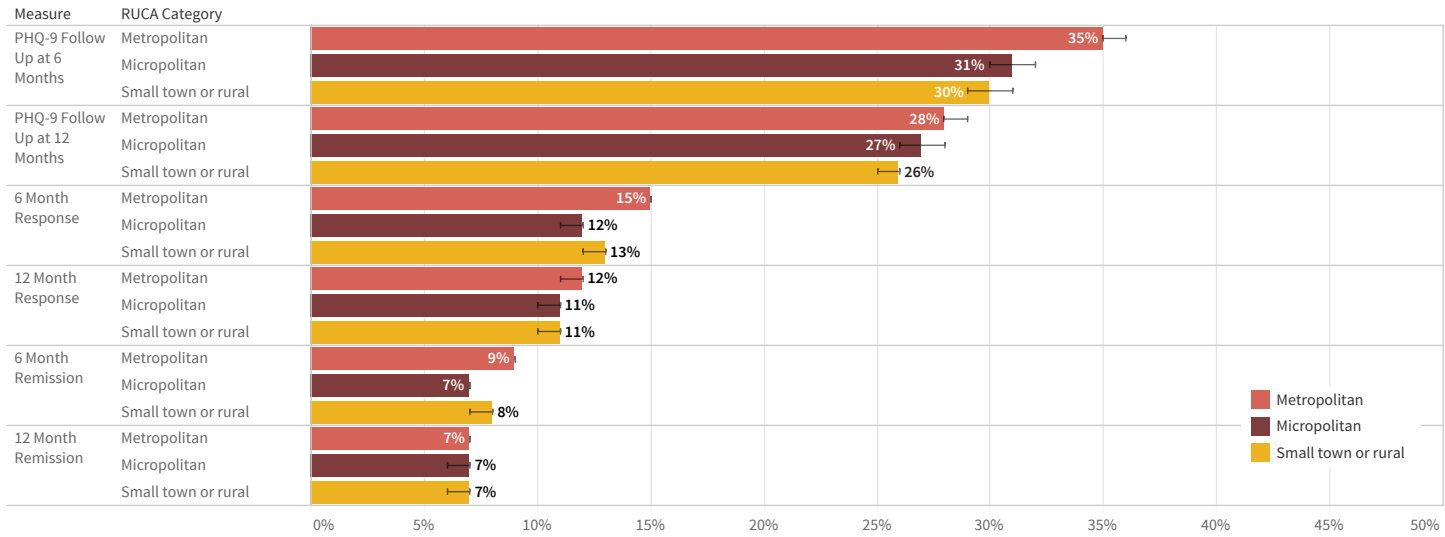


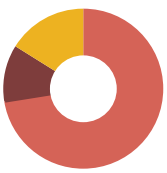
Total number of patients = 110,534

Follow-up and remission rates are lower for patients with severe depression.

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Adult Depression Measures by Geography



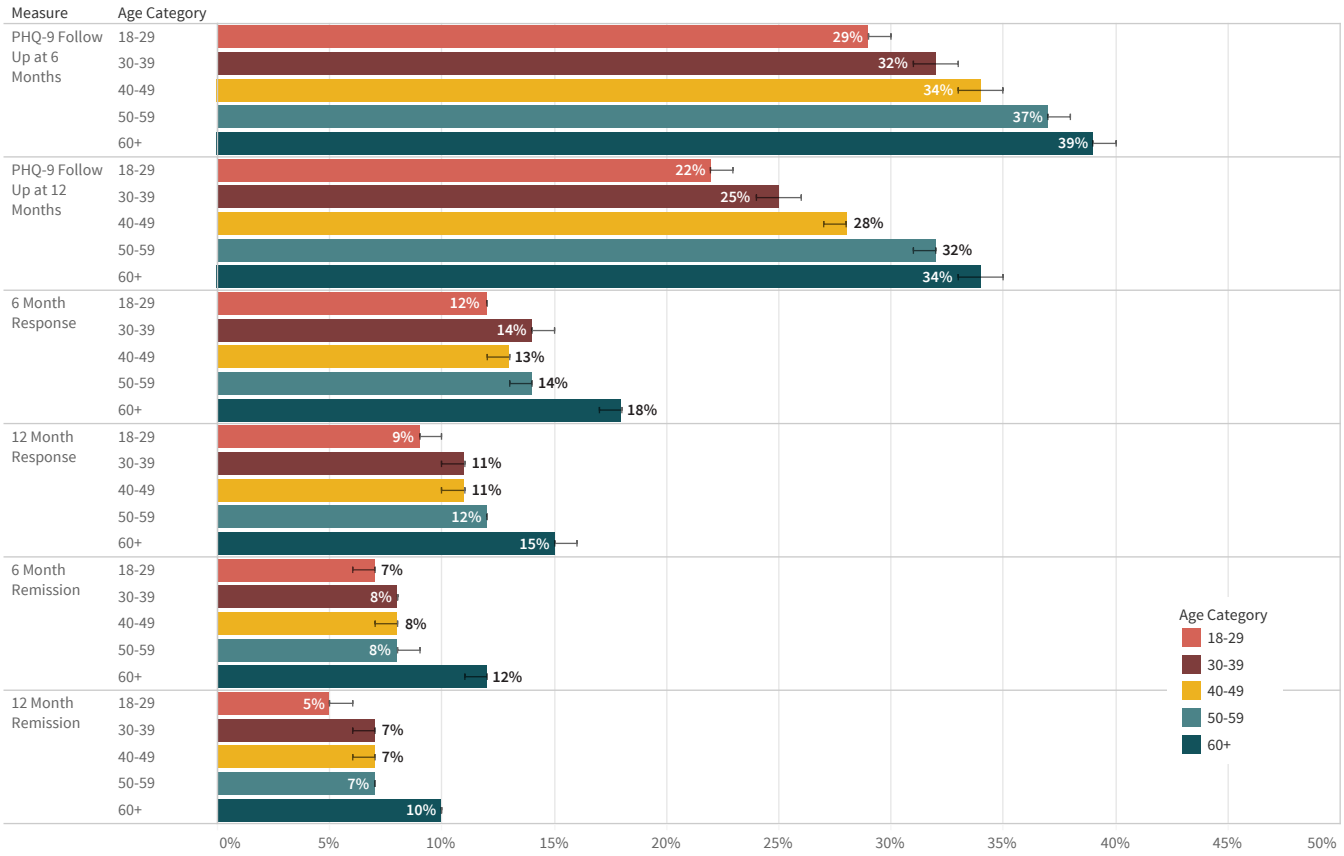


Total number of patients = 110,534

Patients in metropolitan areas tend to have higher follow-up rates.

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Adult Depression Measures by Age

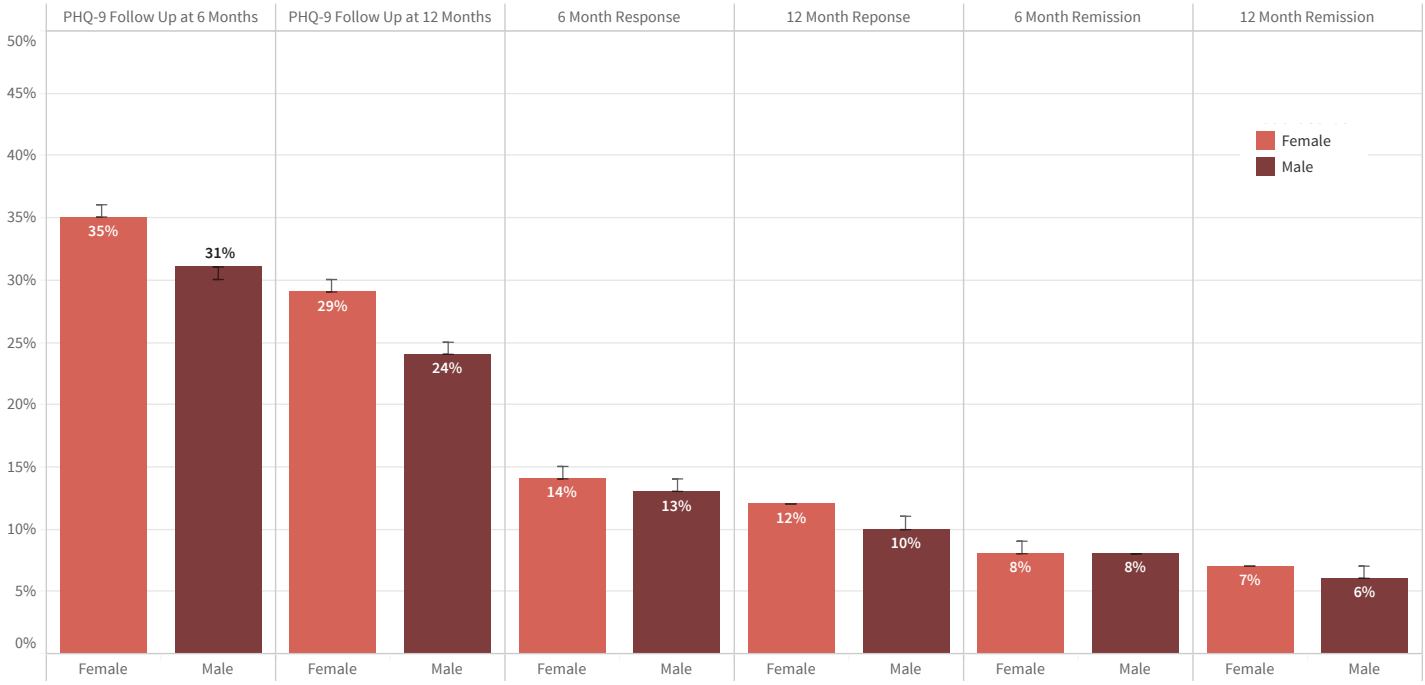


Total number of patients = 110,534

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Follow-up rates and outcomes mostly improve with age, with the highest rates of follow-up, response and remission among people age 60 and older.

Adult Depression Measures by Gender

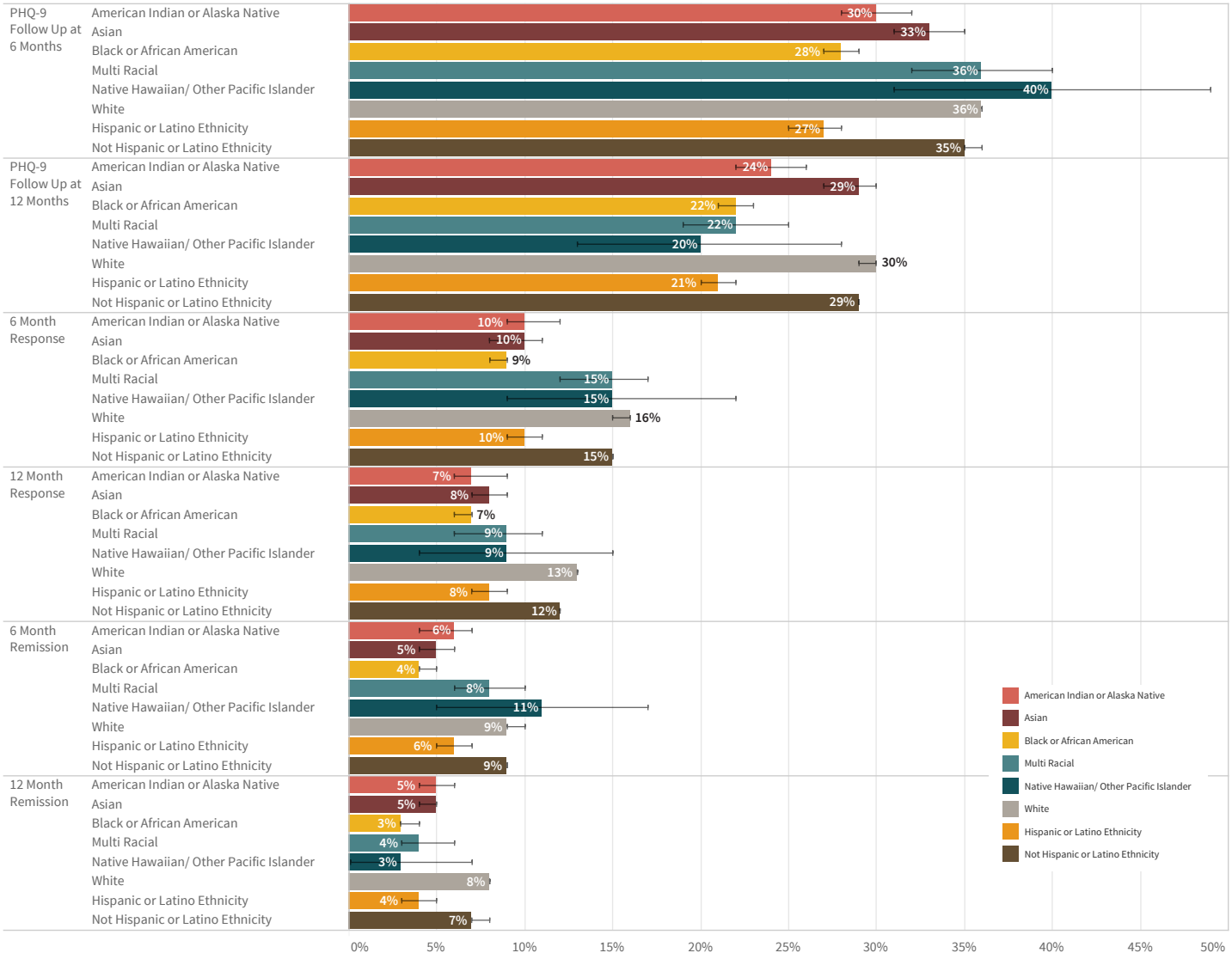


Total number of patients = 110,534

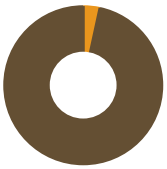
Females have higher follow-up rates than males.

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Adult Depression Measures by Race and Hispanic Ethnicity

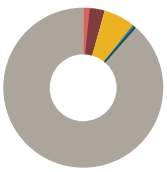


Ethnicity



Total number of patients with ethnicity information = 96,880

Race

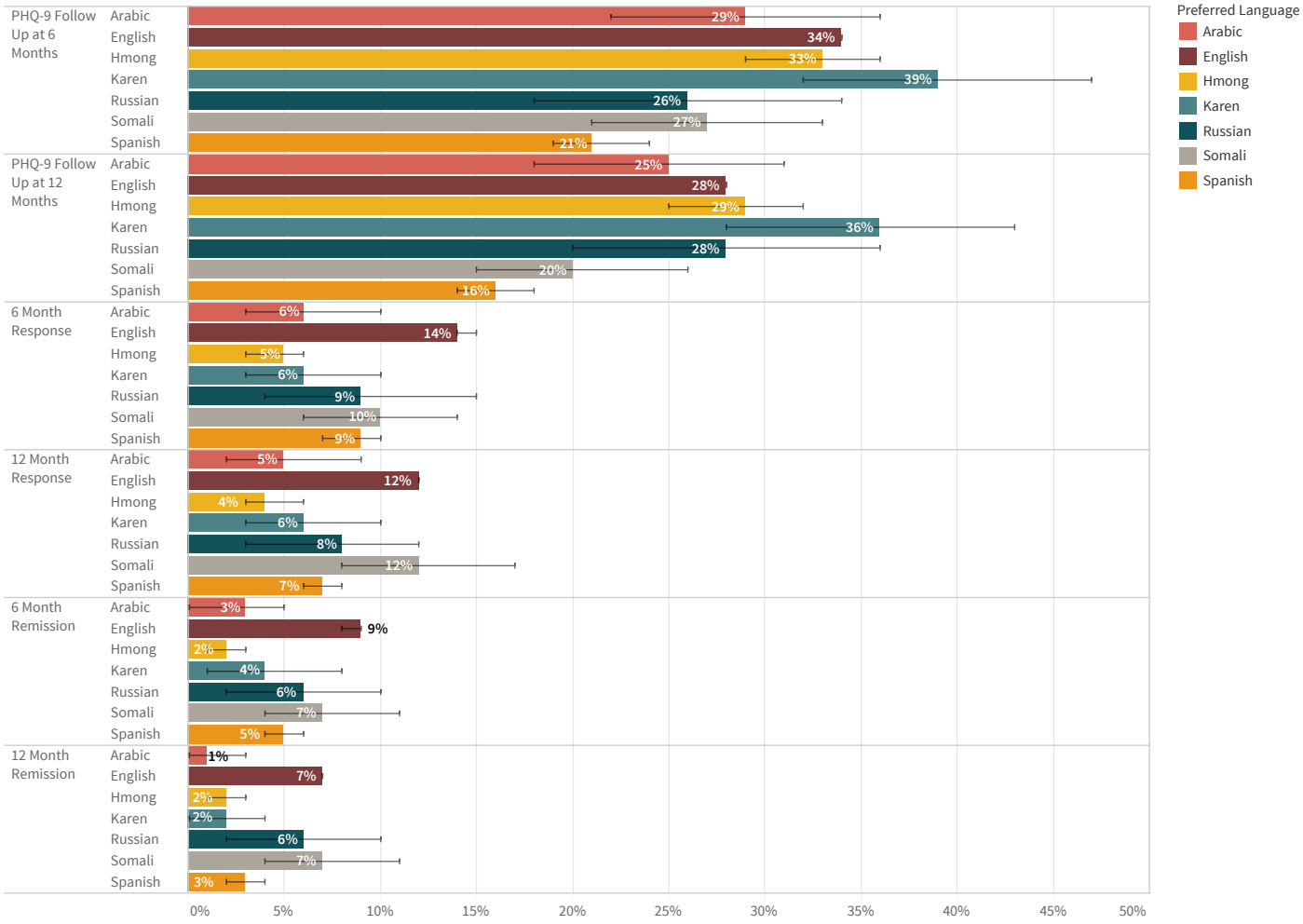


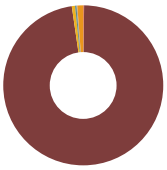
Total number of patients with race information = 94,152

Follow-up and outcome rates vary by race and Hispanic Ethnicity. In general, follow-up rates and outcomes are lower for American Indians, African Americans and Hispanics.

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Adult Depression Measures by Language



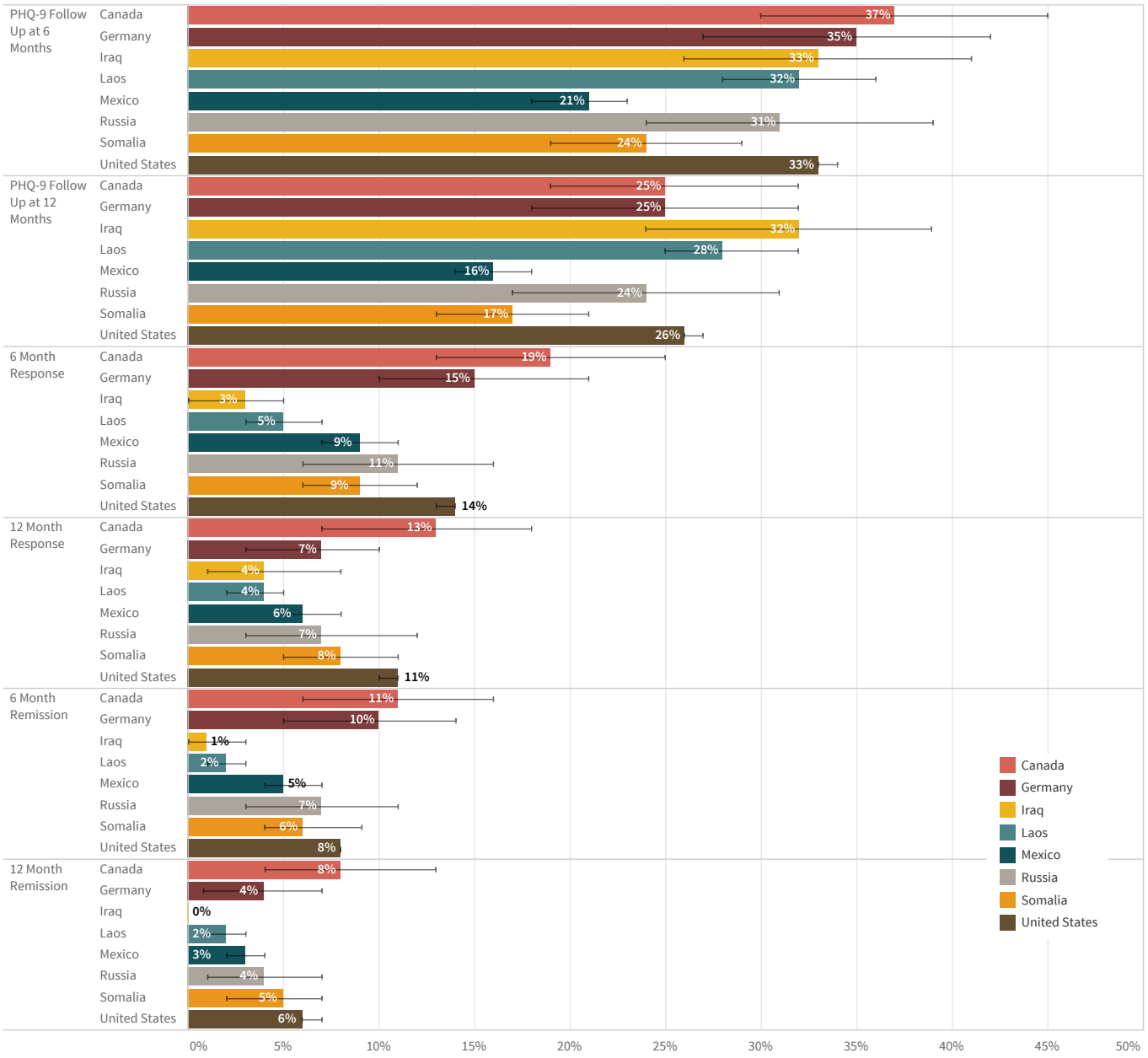


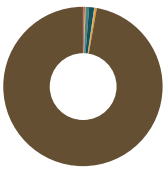
Total number of patients = 107,732

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Follow-up and outcome rates vary by language. In general, people who speak English have higher follow-up rates and outcomes than people who speak other languages. People who speak Spanish have lower follow-up rates and outcomes across all measures.

Adult Depression Measures by Country of Origin





Total number of patients = 93,041

Source: Data reported to MNCM in 2018 (dates of service vary by measure).

Follow-up and outcome rates vary by country of origin. People who are born in Mexico or Somalia have lower follow-up rates than people born elsewhere. In general, people born in Iraq, Laos, and Mexico have lower outcome rates.

Highest Performers for Adult Depression Remission at 12 Months – Clinic Level Results

There were 15 clinics that received a Top Rating on the Depression Remission at 12 Months outcome measure after adjusting for differences in patient characteristics. The adjustment accounts for differences in severity of depression, age, health insurance type, and a ZIP code level indicator of socioeconomic status.* The clinics receiving a Top Rating are listed below in order of risk adjusted performance.

Highest Performers – Clinic Level
Entira Family Clinics – West St. Paul
Sanford Health – Mahnomen
Essentia Health Central – Pierz
Essentia Health Central – Pine River
Entira Family Clinics – Highland
Park Nicollet – Creekside
Park Nicollet – Burnsville
Essentia Health West – Valley City, ND
Sanford Health – Tracy
Essentia Health East – Superior, WI
Essentia Health East – Hayward, WI
Essentia Health East – Hibbing
Essentia Health East – Lakeside
Park Nicollet – Eagan
Essentia Health East – Ashland, WI

Highest Performers for Depression Remission at 12 Months – Medical Group Level Results

There were five medical groups that received a Top Rating on the depression remission at 12 months outcome measure after adjusting for differences in patient characteristics. They are listed below in order of risk adjusted performance.

Highest Performers – Medical Group Level
Entira Family Clinics
Essentia Health
Park Nicollet Health Services
HealthPartners Clinics
Grand Itasca

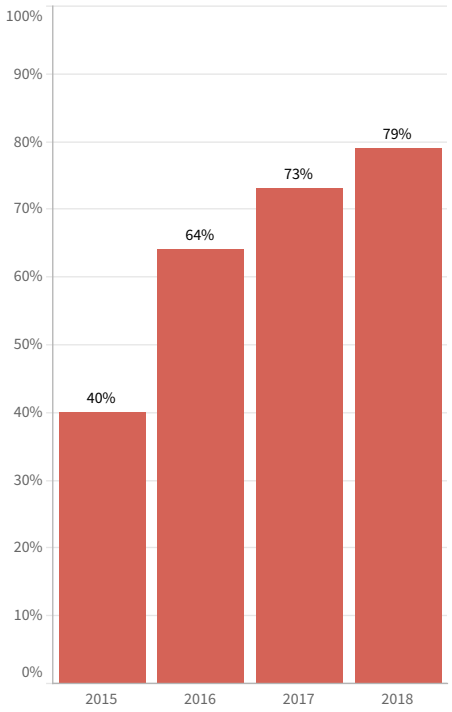
Information on top performers for all depression measures can be found on *mnhealthscores.org*.

*More information on risk adjustment is available in the Methodology appendix.

ADOLESCENT MENTAL HEALTH AND/OR DEPRESSION SCREENING

This section of the report displays results for the adolescent mental health and/or depression screening measure (process measure). The data submitted in 2018 reflects over 142,000 adolescent patients throughout Minnesota and surrounding communities who had at least one well child visit in 2017. The charts present results at a statewide level over time and by medical group distribution. Results are also segmented by gender, geography, age, race, Hispanic ethnicity, preferred language and country of origin. Detailed results by medical group and clinic are available in the online appendix to this report, and at ***mnhealthscores.org***.

Adolescent Depression Measure: Trend

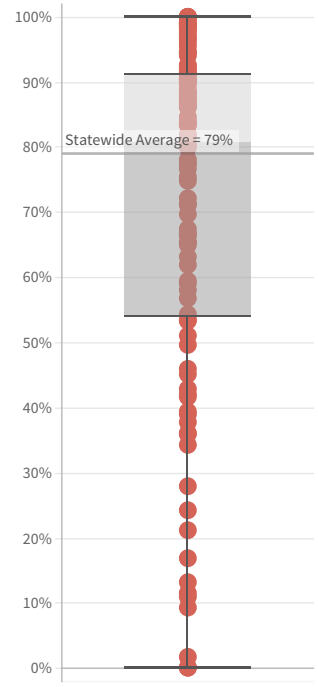


Total number of patients:
2015 = 108,188
2016 = 119,450
2017 = 137,033
2018 = 142,959

Most medical groups in Minnesota are currently administering a depression screening tool to their adolescent patients. The percentage of adolescents who were screened for mental health and/or depression has increased significantly since 2015 (when the measure was first implemented) and has improved every year.

Source: Data reported to MNCM in 2018 (2017 dates of service).

Adolescent Depression Measure: Variation by Medical Group

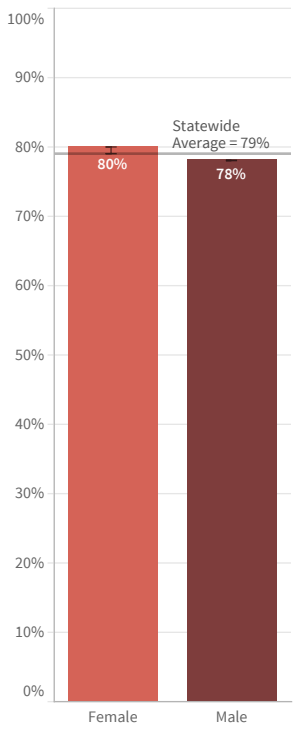


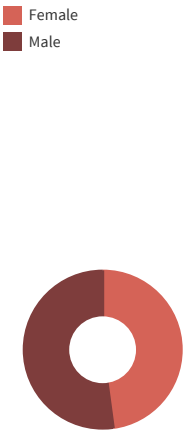
The medical group level distribution for mental health and/or depression screening ranges from 0% to 100% with a statewide rate of 79%. Five medical groups achieved screening rates of 100%; however, 23 medical groups screened fewer than half of their adolescent patients signifying continued opportunity for improvement. Rates for individual medical groups and clinics are included in the online appendix to this report.

Total number of patients = 142,959

Source: Data reported to MNCM in 2018 (2017 dates of service).

Adolescent Depression Measure by Gender



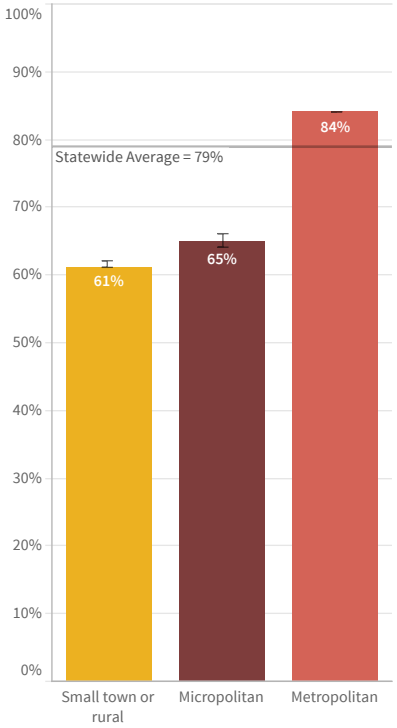


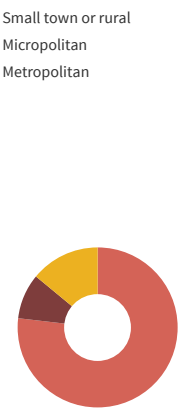
Total number of patients = 142,959

There is essentially no difference by gender for adolescent mental health and/or depression screening.

Source: Data reported to MNCM in 2018 (2017 dates of service).

Adolescent Depression Measure by Geographic Location



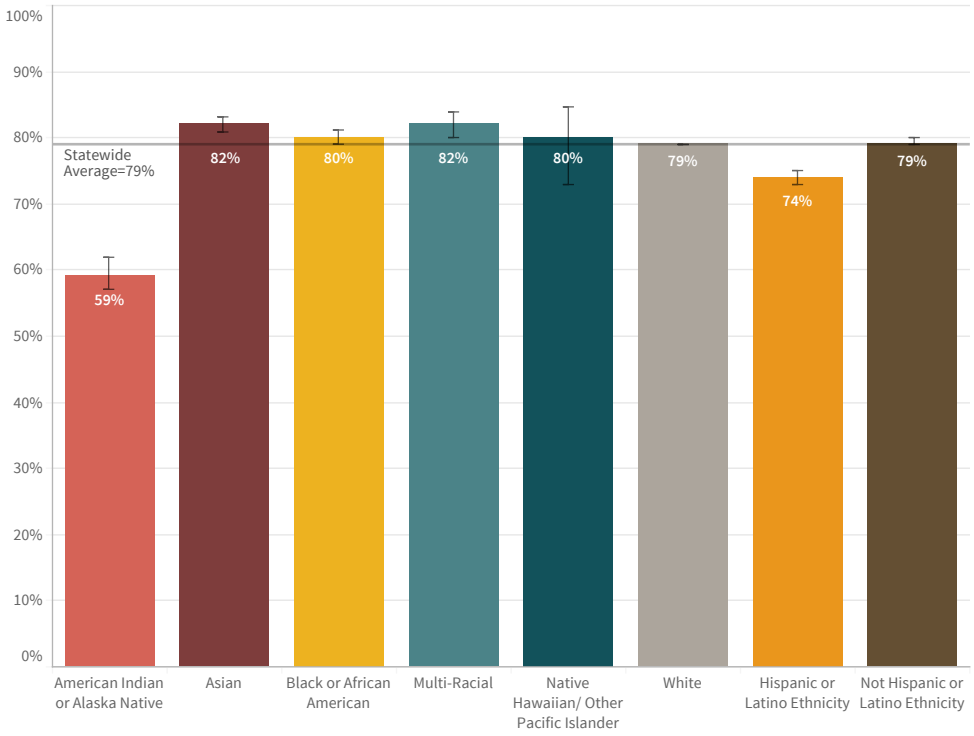


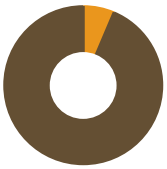
Total number of patients = 142,959

Adolescents in metropolitan areas have the highest screening rates while adolescents in rural areas have the lowest rates.

Source: Data reported to MNCM in 2018 (2017 dates of service).

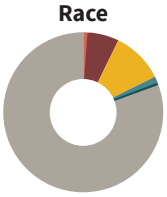
Adolescent Depression Measure by Race and Hispanic Ethnicity





Ethnicity

Total number of patients with ethnicity information = 127,145



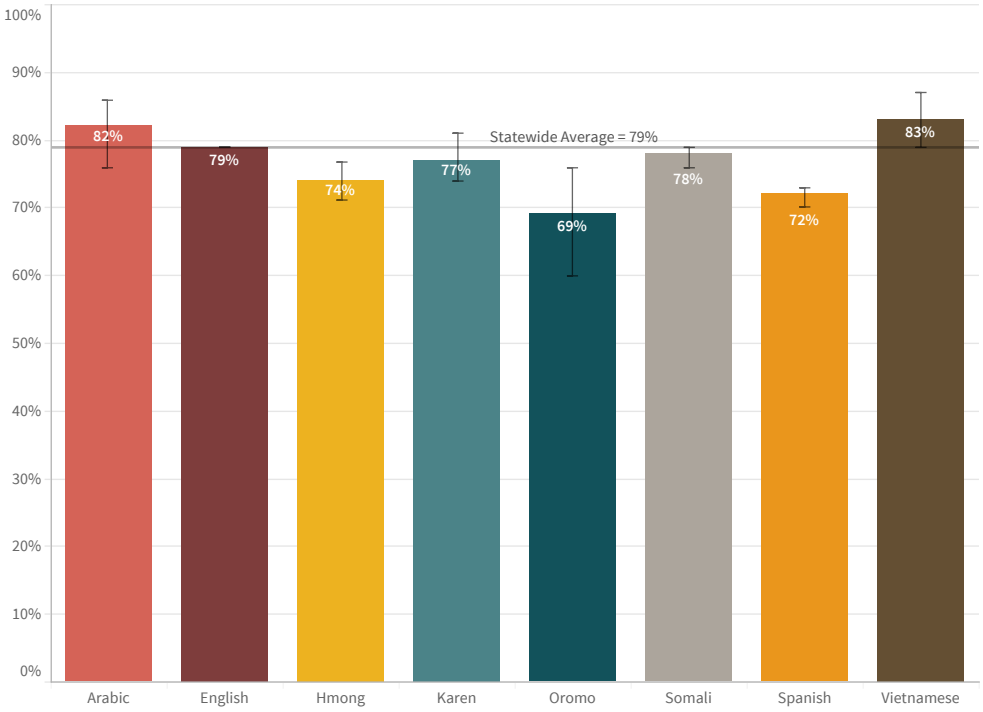
Race

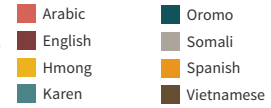
Total number of patients with race information = 125,546

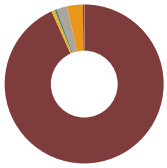
Source: Data reported to MNCM in 2018 (2017 dates of service).

Mental health and depression screening rates don't vary widely by race and Hispanic Ethnicity except for American Indian or Alaska Native and Hispanic adolescents who have considerably lower screening rates.

Adolescent Depression Measure by Language





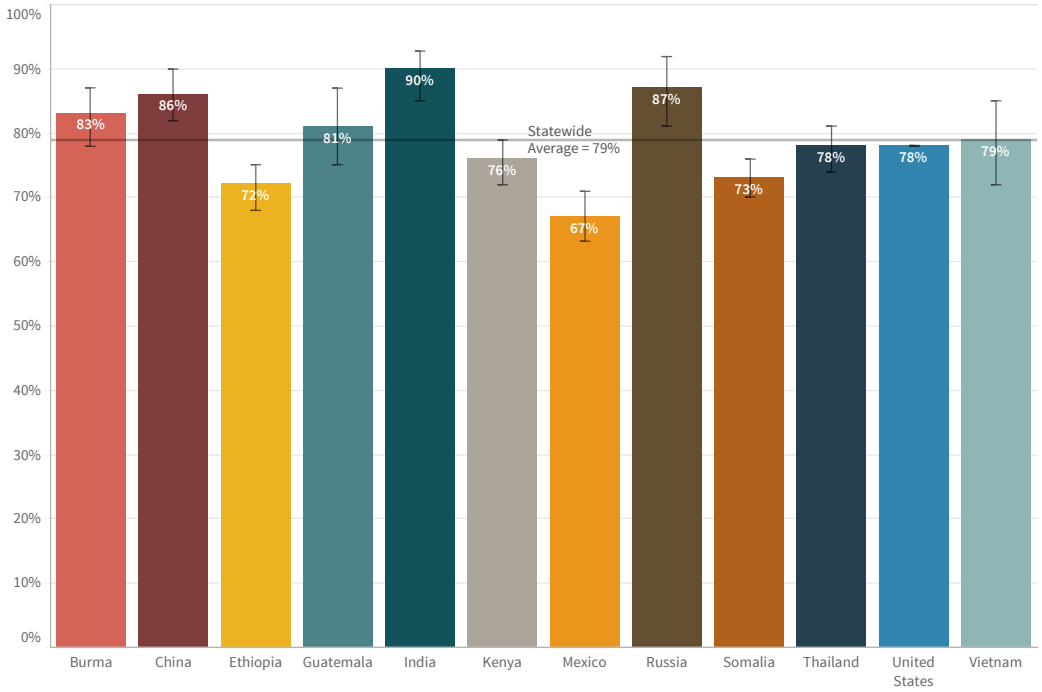


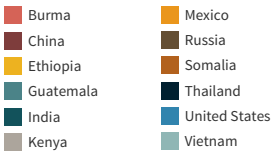
Total number of patients = 138,983

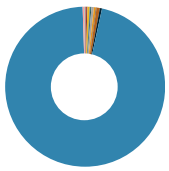
Screening rates don't vary widely by preferred language, but are lower for adolescents who primarily speak Hmong, Oromo, or Spanish.

Source: Data reported to MNCM in 2018 (2017 dates of service). Includes preferred language groups with at least 100 patients.

Adolescent Depression Measure by Country of Origin







Total number of patients = 119,050

Screening rates don't vary widely by country of origin except that adolescents born in Ethiopia, Mexico, or Somalia have considerably lower screening rates than those born in other countries.

Source: Data reported to MNCM in 2018 (2017 dates of service). Includes country of origin groups with at least 150 patients.

DEFINITIONS

Adult Depression Care Measures

Denominator Identification Period: The time period used to define the denominator population of the six and 12-month Depression Care measures. All patients with an Index Event during this time period are included in the measure denominator(s) for result calculation.

Encounter: Office visit, psychiatry or psychotherapy visit, telephone or online encounter.

Index Event: An index event occurs when all of the following are met during an encounter: a PHQ-9 result greater than 9, an active diagnosis of major depression or dysthymia and patient is not in a prior measure assessment period.

Measure Assessment Period: For each patient, the measure assessment period begins with an index event and is 13 months (12 months +/- 30 days) in length.

PHQ-9 Tool: Patient Health Questionnaire (PHQ) consisting of nine questions to assess depression severity level of patient.

Remission is defined as having few or no symptoms (a patient with depression having a PHQ-9 score of less than 5).

Response is defined as a 50% or greater reduction in symptoms (as measured on a standardized rating scale). Partial response is defined as a 25-50% reduction in symptoms. This definition is based on how the depression literature defines response.

Adolescent Mental Health and/or Depression Screening Measure

Numerator: The number of patients in the denominator who completed ANY of the following mental health and/or depression screening tools during the measurement period, AND have the screening tool result documented in the medical record:

> Patient Health Questionnaire – 9 item version (PHQ-9), PHQ-9M Modified for Teens and Adolescents, Kutcher Depression Scale (KADS), Beck Depression Inventory II (BDI-II), Beck Depression Inventory Fast Screen (BDI-FS), Child Depression Inventory (CDI), Child Depression Inventory II (CDI-2), Patient Health Questionnaire – 2 item version (PHQ-2), Pediatric Symptom Checklist – 17 item version (PSC-17) - parent version, Pediatric Symptom Checklist – 35 item (PSC-35) - parent version, Pediatric Symptom Checklist – 35 item Youth Self-Report (PSC Y-SR) or Global Appraisal of Individual Needs screens for mental health and substance abuse (GAIN-SS).

Denominator: Adolescent patients ages 12-17 who had a well-child visit during the measurement period.

Online Appendices

- Methodology
- Detailed Medical Group and Clinic Level Tables

Endnotes

[1] National Institute Mental Health/ National Institute Health (2016) Prevalence of Depression Statistics *https://www.nimh.nih.gov/health/statistics/major-depression.shtml*

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[4] National Institute Mental Health/ National Institute Health (2016) Prevalence of Depression in Adolescents Statistics
https://www.nimh.nih.gov/health/statistics/major-depression.shtml

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http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2762785/

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[7] MN Community Measurement (2015) New Measures Evaluate Rates of Obesity Counseling for Kids, Depression Screening for Teens
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[8] Board on Children, Youth and Families, Institute of Medicine. Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions. (2009) *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities* Washington, D.C. The National Academies Press.

[9] Institute for Clinical Systems Improvement. (2010) *Guideline: Preventive Services for Children and Adolescents, Sixteenth Edition*
www.icsi.org/guidelines_and_more

[10] Minnesota Department of Health. (2009) *Fact Sheet: Title V (MCH) Block Grant: Children and Adolescents. Mental Health Screening, Assessment and Treatment.*