Chartbook Section 9

Minnesota Statewide Quality Reporting and Measurement System

MDH Minnesota Department of Health

Health Economics Program

Background

Minnesota's Health Reform Law, enacted in 2008, requires the Commissioner of Health to establish a standardized set of quality measures for health care providers across the state.

- This set of measures is known as the Minnesota Statewide Quality Reporting and Measurement System.
- MDH updates the measure set every year, after seeking public comments and recommendations from the community.
- Physician clinics and hospitals are required to report quality measures annually. Statewide data collection began in 2010.
- At this point, more than 1,200 clinics report on 12 quality metrics; 133 hospitals report on a number of hospital measures.

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  - Optimal Vascular Care
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  - Colorectal Cancer Screening
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  - Adolescent Mental Health and/or Depression Screening

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  - Total Knee Replacement: Primary
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Clinic Quality Measures

Optimal Diabetes Care

The percentage of diabetes patients, ages 18-75, who met **ALL** of the following **five goals**:

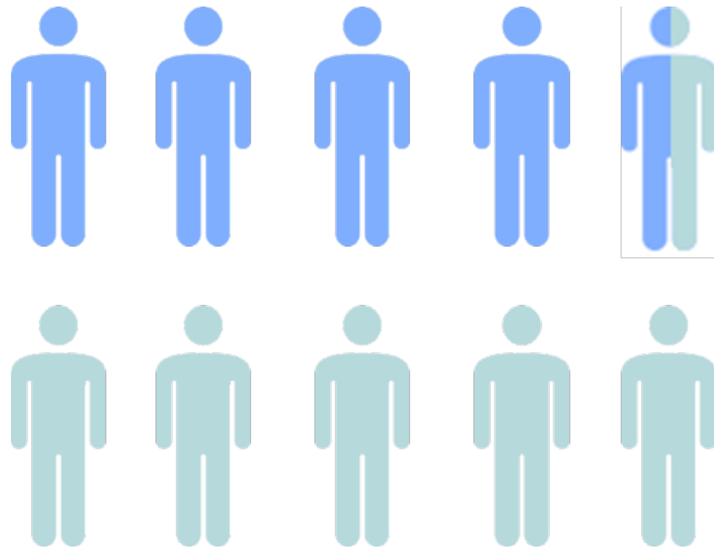
1) Blood sugar control
2) Blood pressure control
3) Statin use, if needed
4) Daily aspirin use, if needed
5) No tobacco use

Measure steward: MN Community Measurement
National Quality Forum #0729

Optimal Diabetes Care Statewide Rate

4 ½ out of every **10**

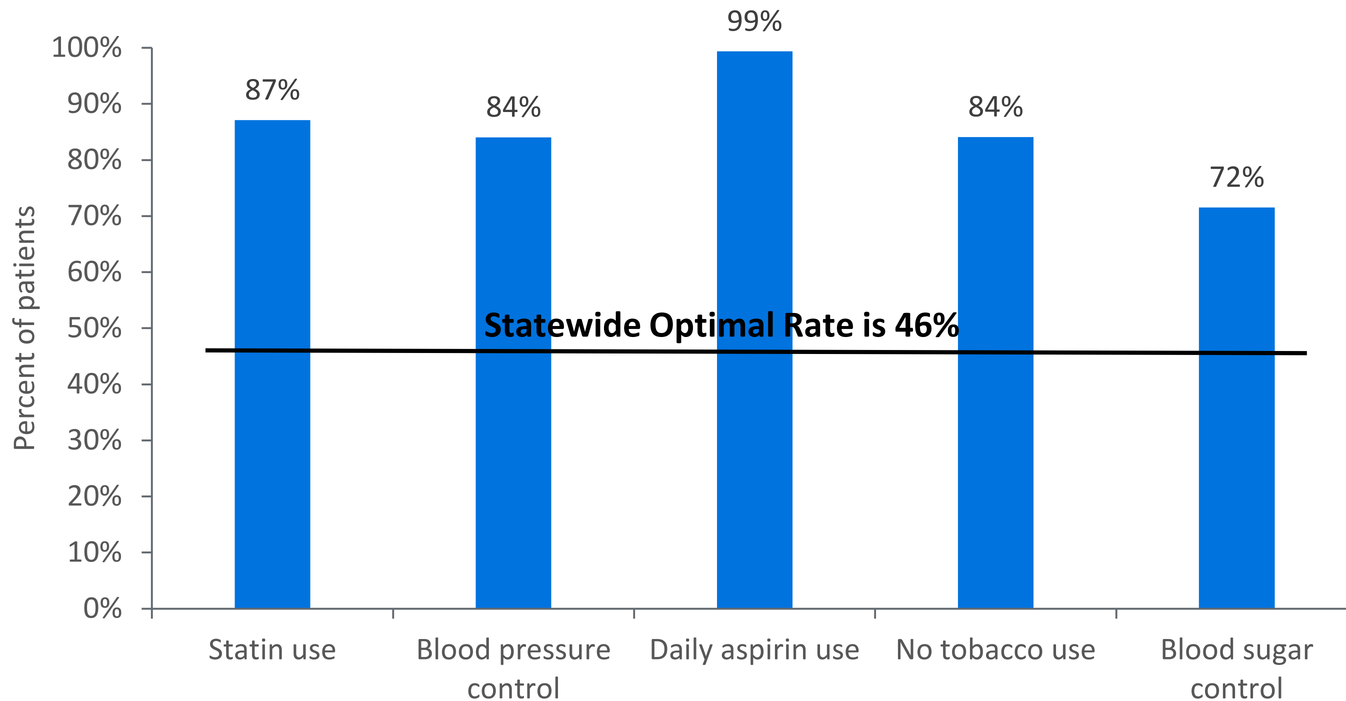
diabetic patients received optimal care



The 2015 statewide optimal care rate was 46%.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Optimal Diabetes Care Component Rates

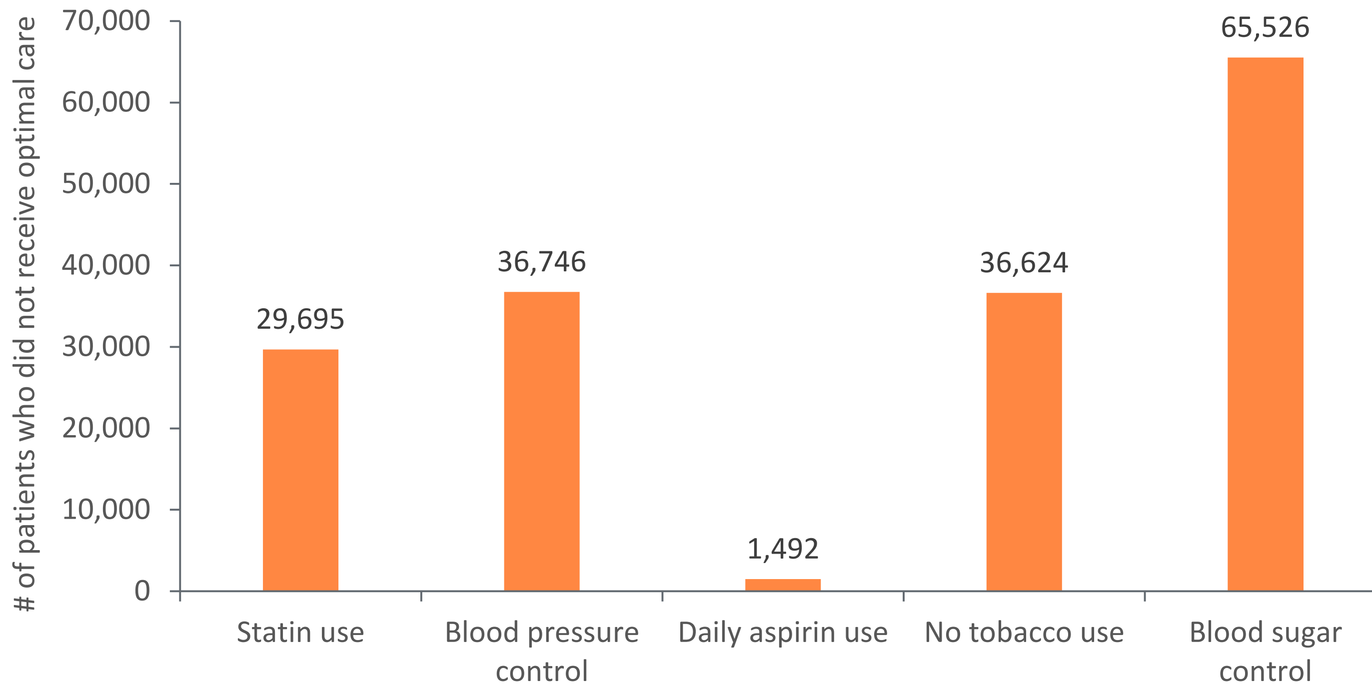
The percentage of diabetes patients that met all five goals was 46%. A greater share of patients met individual goals. Patients had a very high rate of daily aspirin use and high rates of statin use, blood pressure control, and not using tobacco.



To be included in the statewide optimal rate, patients had to meet all five goals.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.
Summary of graph

Optimal Diabetes Care, Patients Without Optimal Care by Component

The statewide optimal diabetes care rate is lower than individual component rates because patients had to meet all five goals to have optimal diabetes care. As shown, many patients did not meet one or more optimal diabetes care goals.

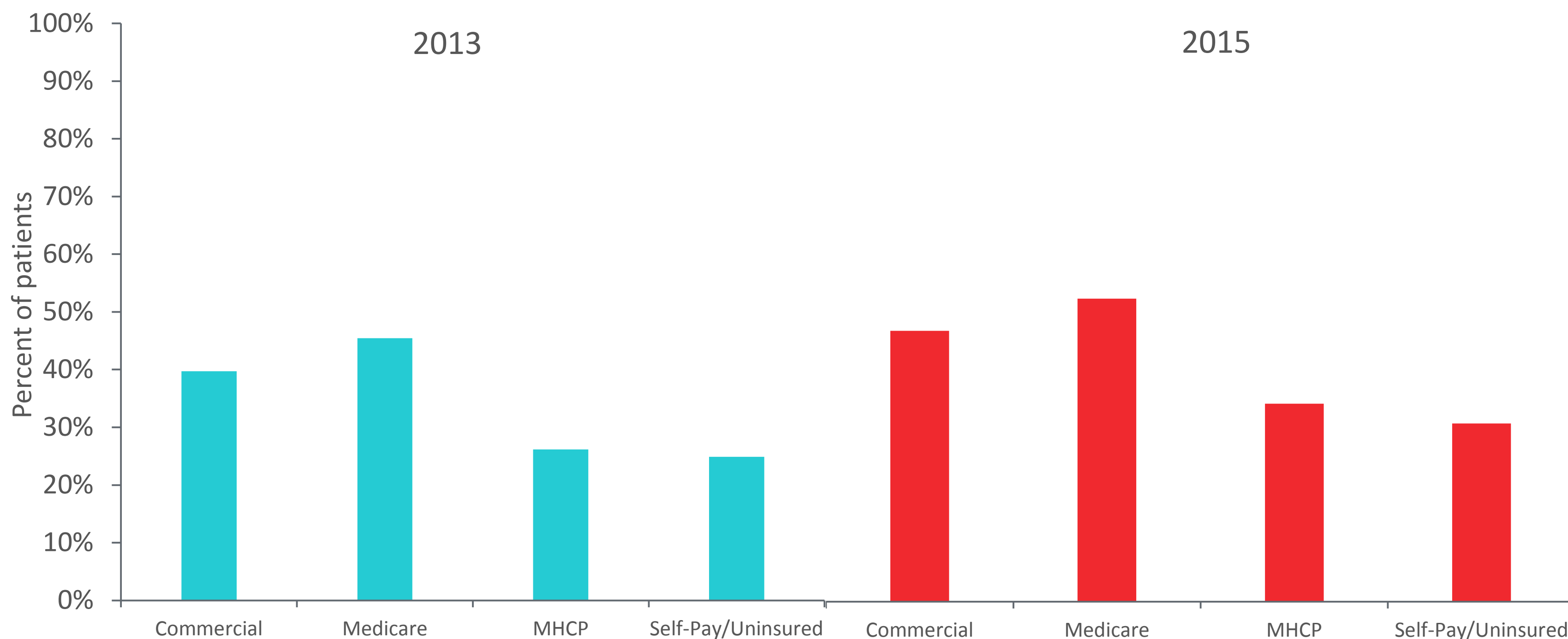


Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Summary of graph

Optimal Diabetes Care Stratified by Health Insurance Type

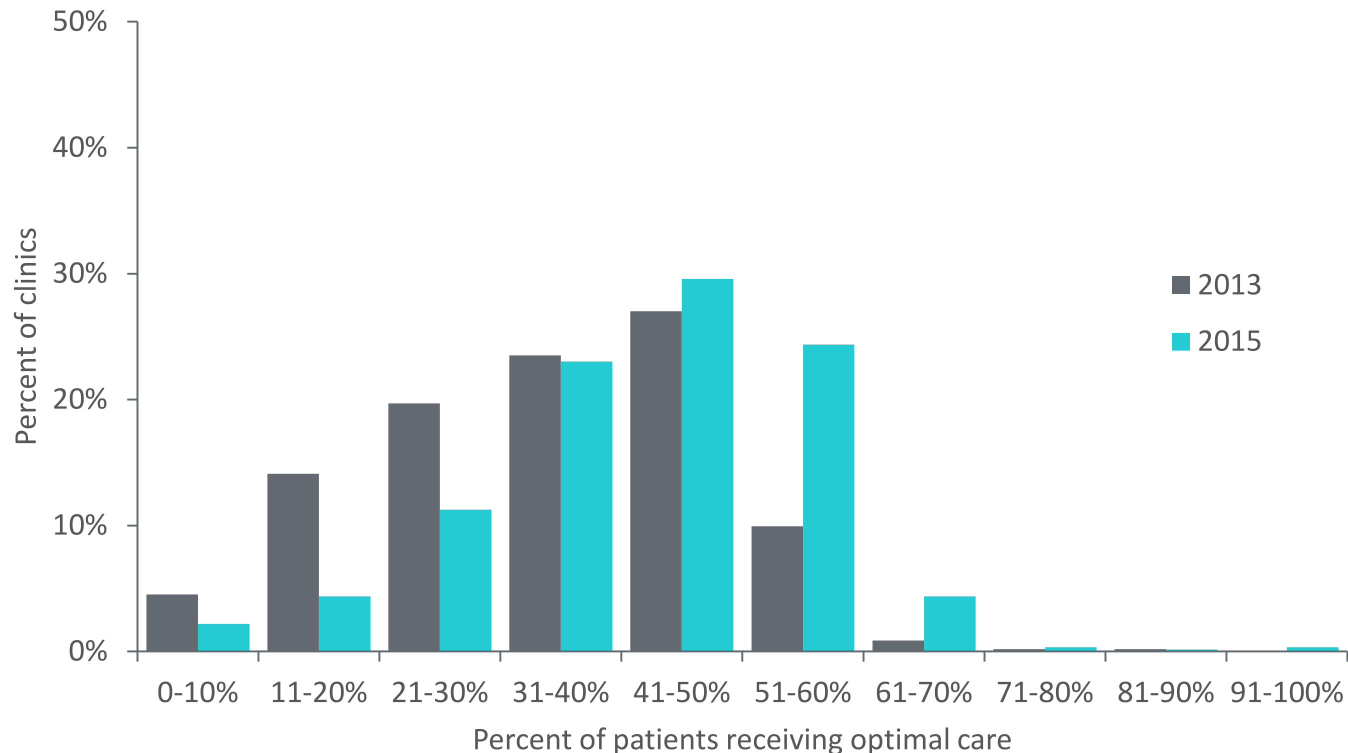
Medicare patients had the highest optimal care rate in 2013 and 2015, followed by patients with commercial insurance. Note that measure specifications have changed over time and 2013 and 2015 optimal care rates are not directly comparable.



In 2013, this measure included a cholesterol control component; in 2015 this was replaced with a statin use component.
MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: January 1 through December 31.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Optimal Diabetes Care
Clinic Performance

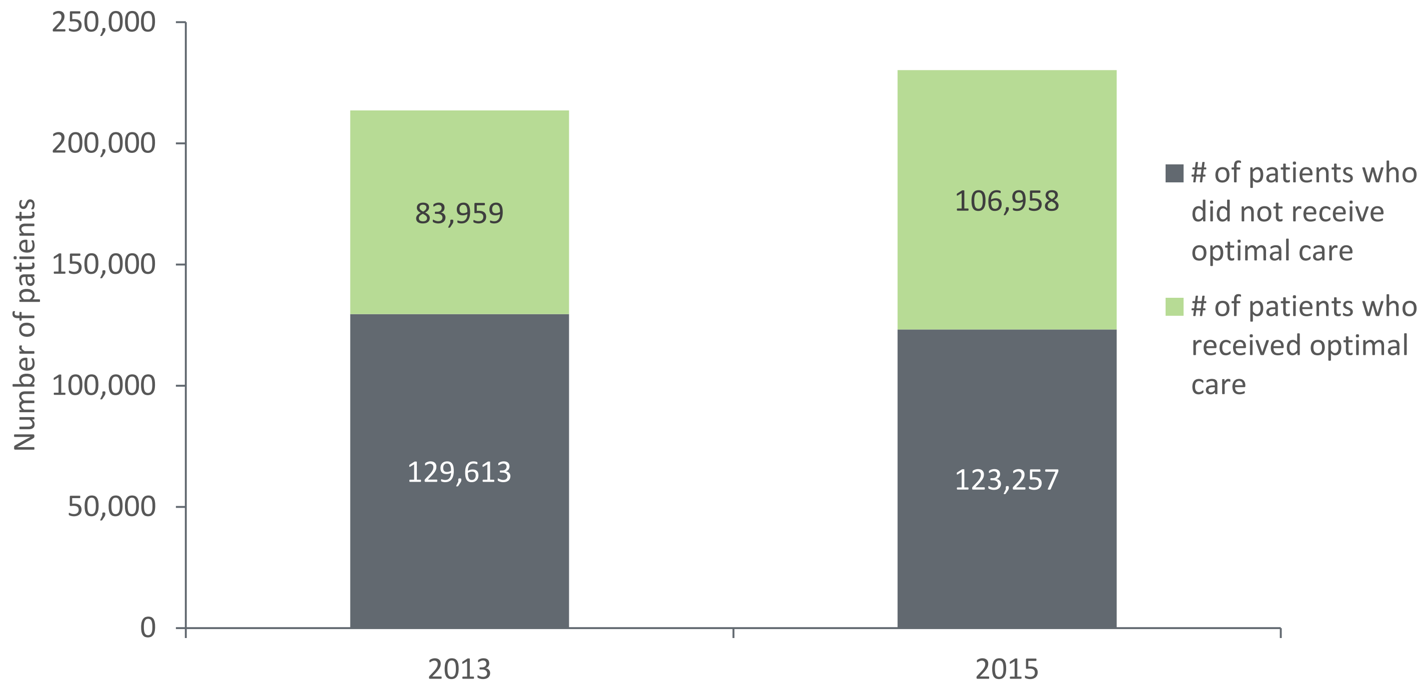
In 2015, compared to 2013, the share of clinics that delivered optimal diabetes care to more than 50% of their patients increased by 18 percentage points. Note that measure specifications have changed over time and 2013 and 2015 optimal care rates are not directly comparable.



In 2013, this measure included a cholesterol control component; in 2015 this was replaced with a statin use component.
There were 574 reporting clinics in 2013 and 595 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Optimal Diabetes Care Patients

The number of patients receiving optimal care for diabetes increased by 23,000 between 2013 and 2015. In 2013, the statewide optimal rate was 39% and in 2015 it was 46%. Note that measure specifications have changed over time and 2013 and 2015 optimal care rates are not directly comparable.



In 2013, this measure included a cholesterol control component; in 2015 this was replaced with a statin use component.
There were 574 reporting clinics in 2013 and 595 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Optimal Vascular Care

The percentage of ischemic vascular disease patients, ages 18-75, who met **ALL** of the following **four goals**:

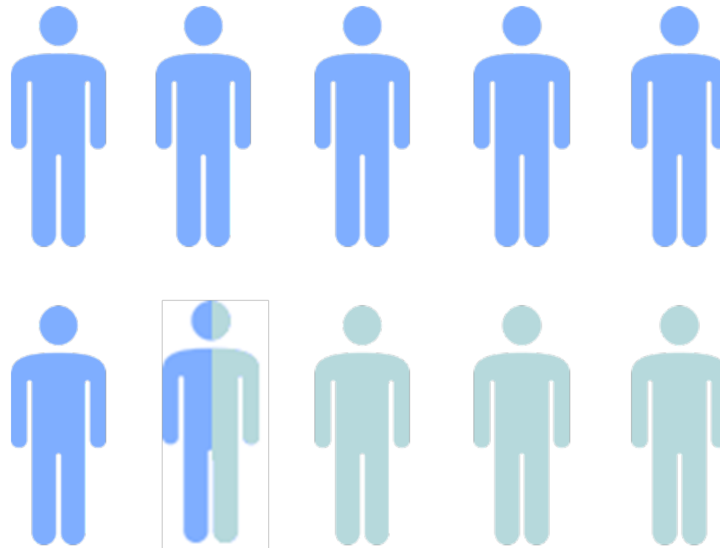
1) Blood pressure control
2) Statin use, if needed
3) Daily aspirin use, if needed
4) No tobacco use

Measure steward: MN Community Measurement
National Quality Forum #0076

Optimal Vascular Care Statewide Rate

6 ½ out of every **10**

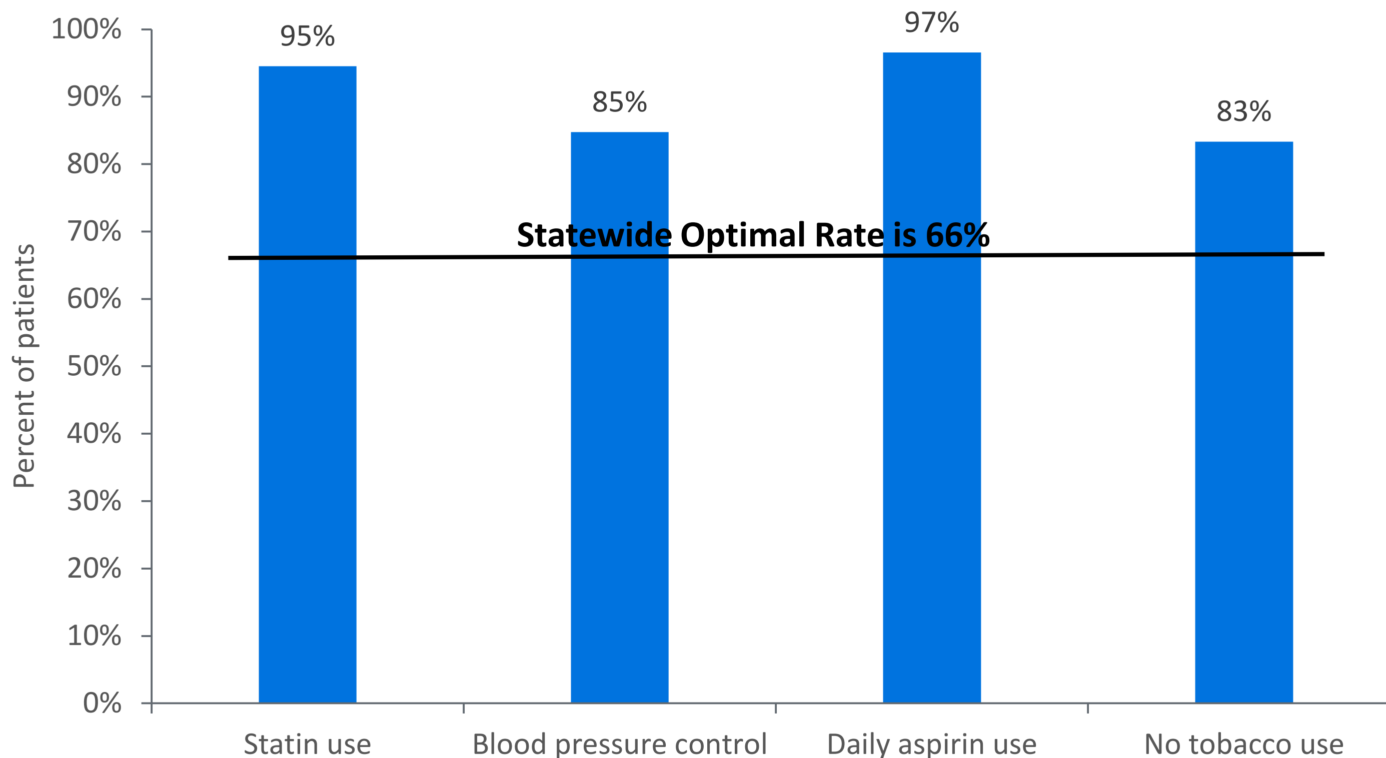
vascular patients received optimal care



The 2015 statewide optimal care rate was 66%.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Optimal Vascular Care Component Rates

The percentage of vascular patients who met all five goals is 66%. A greater share of patients met individual goals. Patients had very high rates of daily aspirin use and statin use.



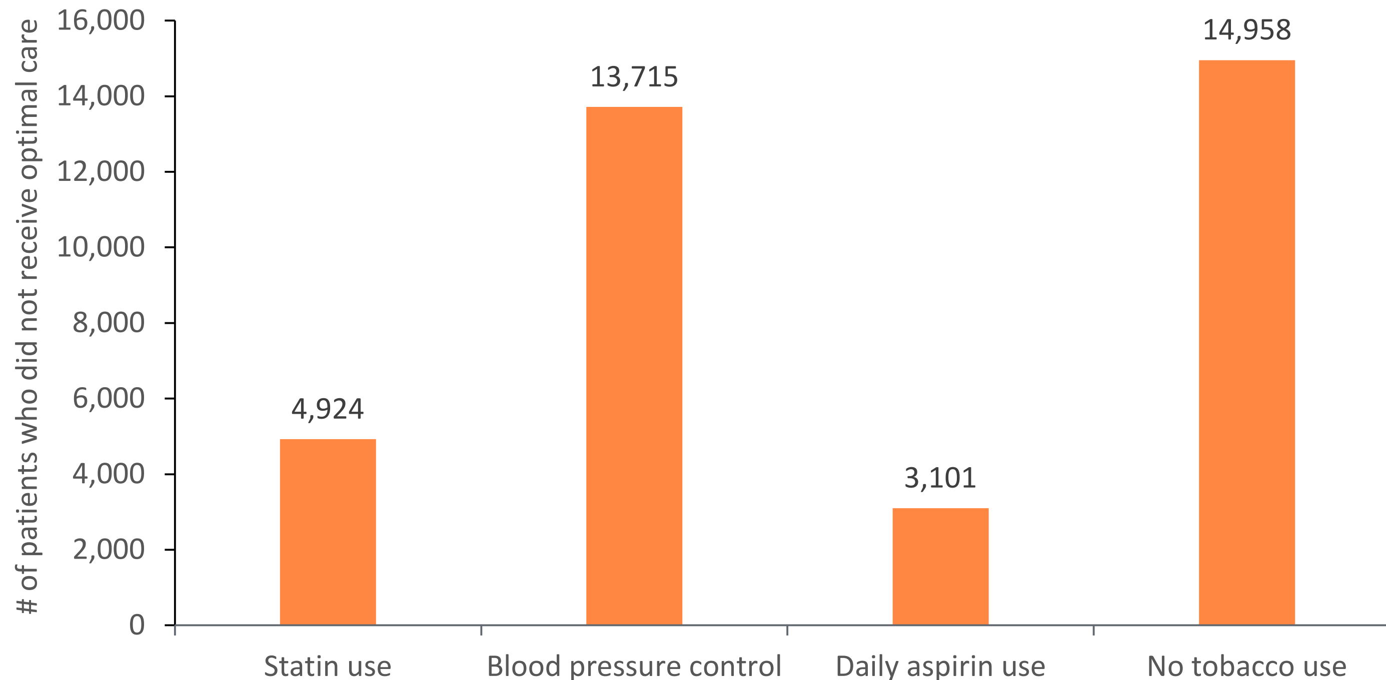
To be included in the statewide optimal rate, patients had to meet all of the above goals.

Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Summary of graph

Optimal Vascular Care, Patients Without Optimal Care by Component

The statewide optimal vascular care rate is lower than individual component rates because patients had to meet all four goals to have optimal vascular care. As shown below, many patients did not meet one or more optimal vascular care goals.

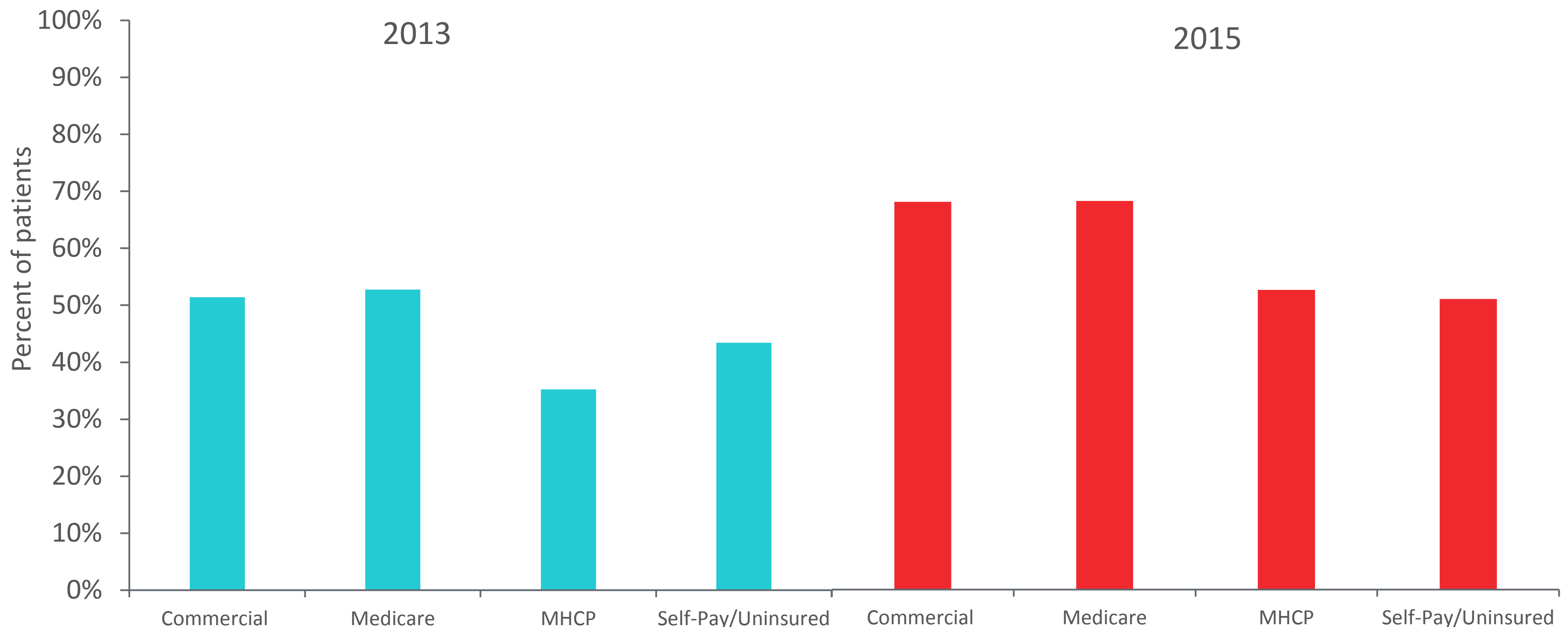


Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Summary of graph

Optimal Vascular Care Stratified by Health Insurance Type

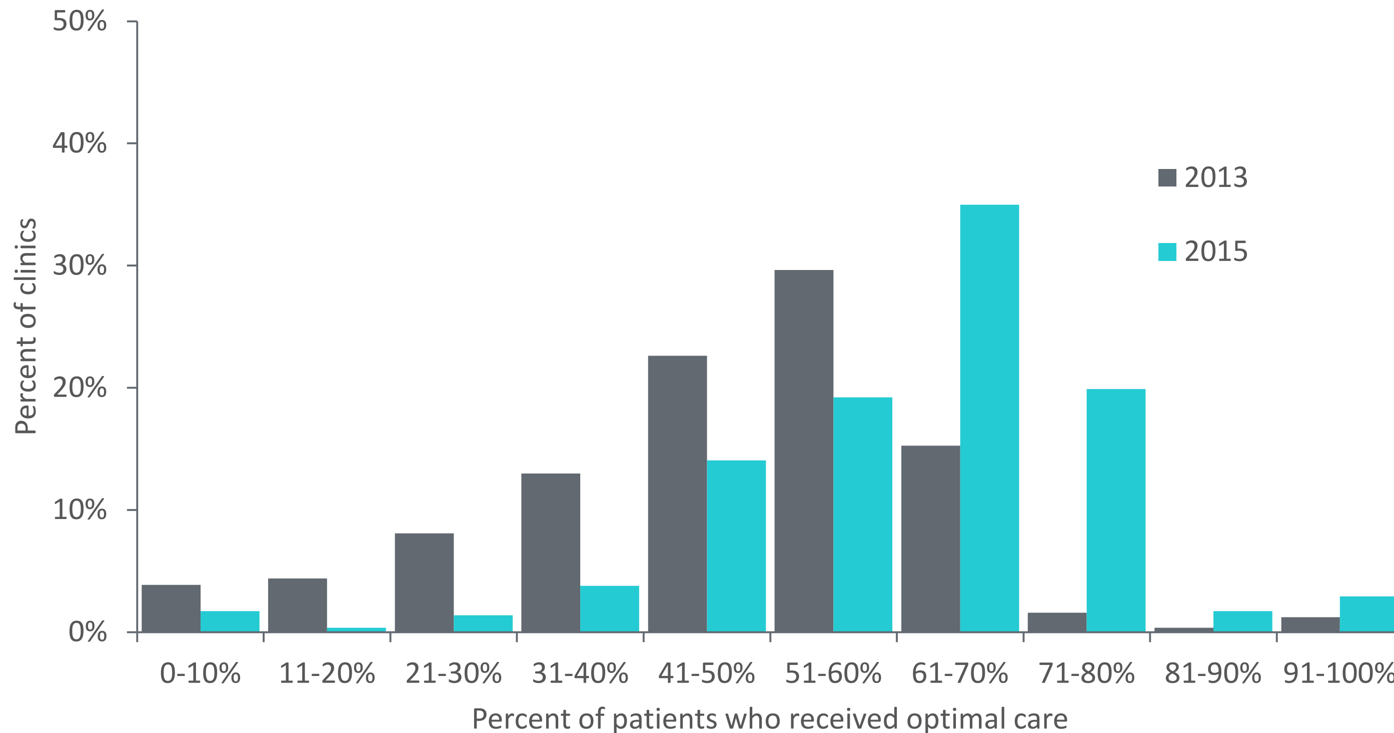
Optimal care rates for patients with commercial insurance and Medicare were notably higher than rates for MHCP and self-pay/uninsured patients. Note that measure specifications have changed over time and 2013 and 2015 optimal care rates are not directly comparable.



In 2013, this measure included a cholesterol control component; in 2015 this was replaced with a statin use component.
MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: January 1 through December 31.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Optimal Vascular Care
Clinic Performance

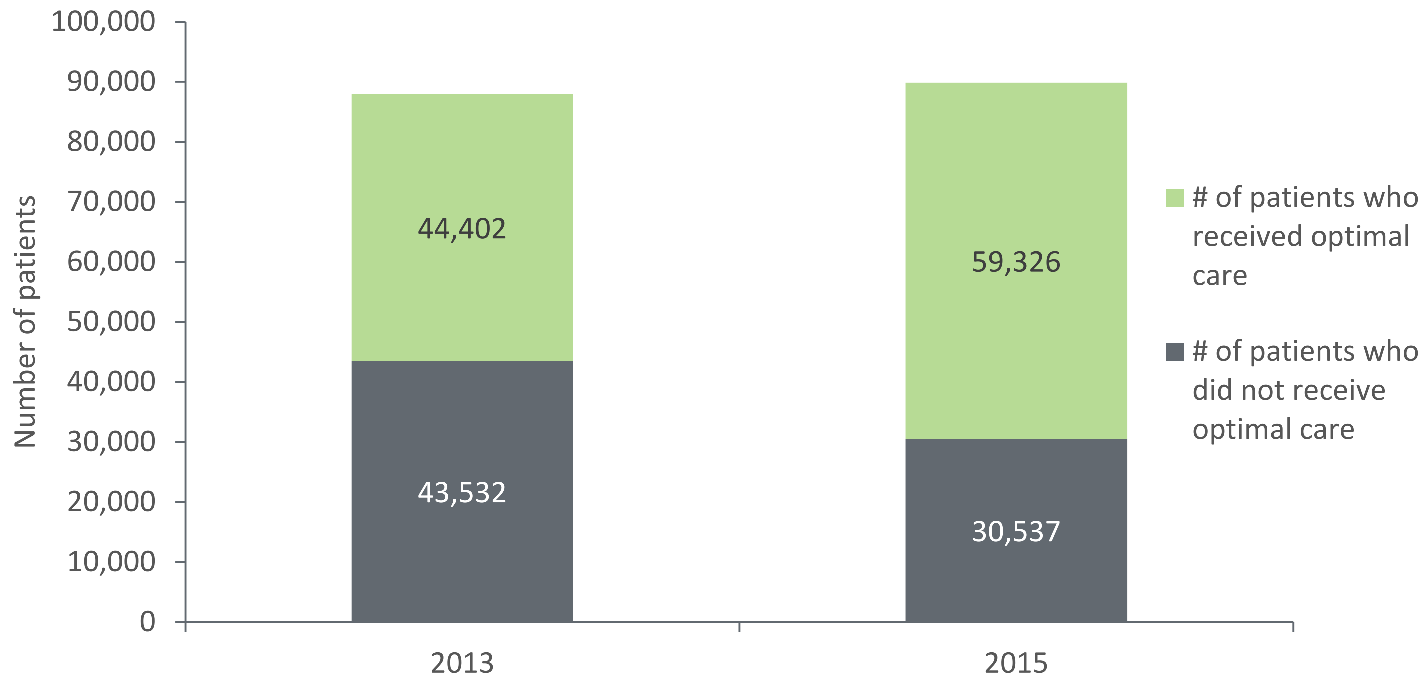
In 2015, compared to 2013, the share of clinics that delivered optimal vascular care to more than 50% of their patients increased by 31 percentage points. Note that measure specifications have changed over time and 2013 and 2015 optimal care rates are not directly comparable.



In 2013, this measure included a cholesterol control component; in 2015 this was replaced with a statin use component.
There were 570 reporting clinics in 2013 and 583 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Optimal Vascular Care Patients

The number of patients receiving optimal vascular care increased by nearly 15,000 between 2013 and 2015. In 2013, the statewide optimal rate was 50% and in 2015 it was 66%. Note that measure specifications have changed over time and 2013 and 2015 optimal care rates are not directly comparable.



In 2013, this measure included a cholesterol control component, in 2015 this was replaced with a statin use component.
There were 571 reporting clinics in 2013 and 583 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Optimal Asthma Control

The percentage of asthma patients, ages 18-50 or 5-17, who met the following **two goals**:

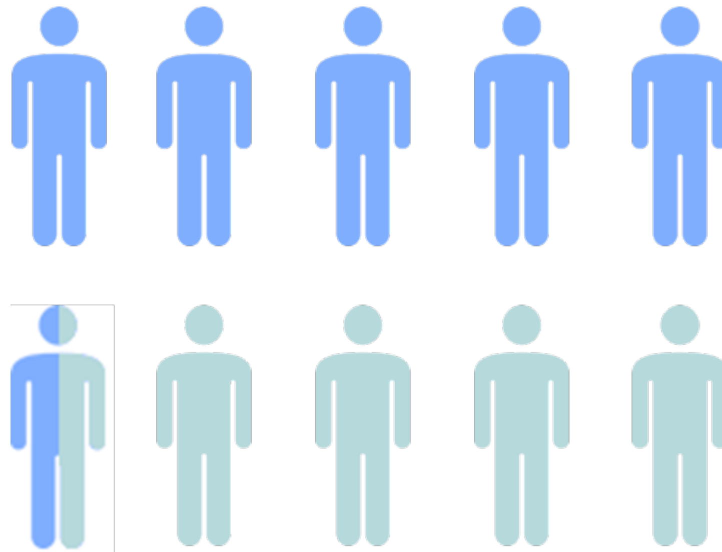
1) Asthma under control
2) Asthma at low risk of worsening

Measure steward: MN Community Measurement

Adult Optimal Asthma Control Statewide Rate

5 ½ out of every **10**

adult asthma patients had optimal control



The 2015 statewide optimal control rate was 56%.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.
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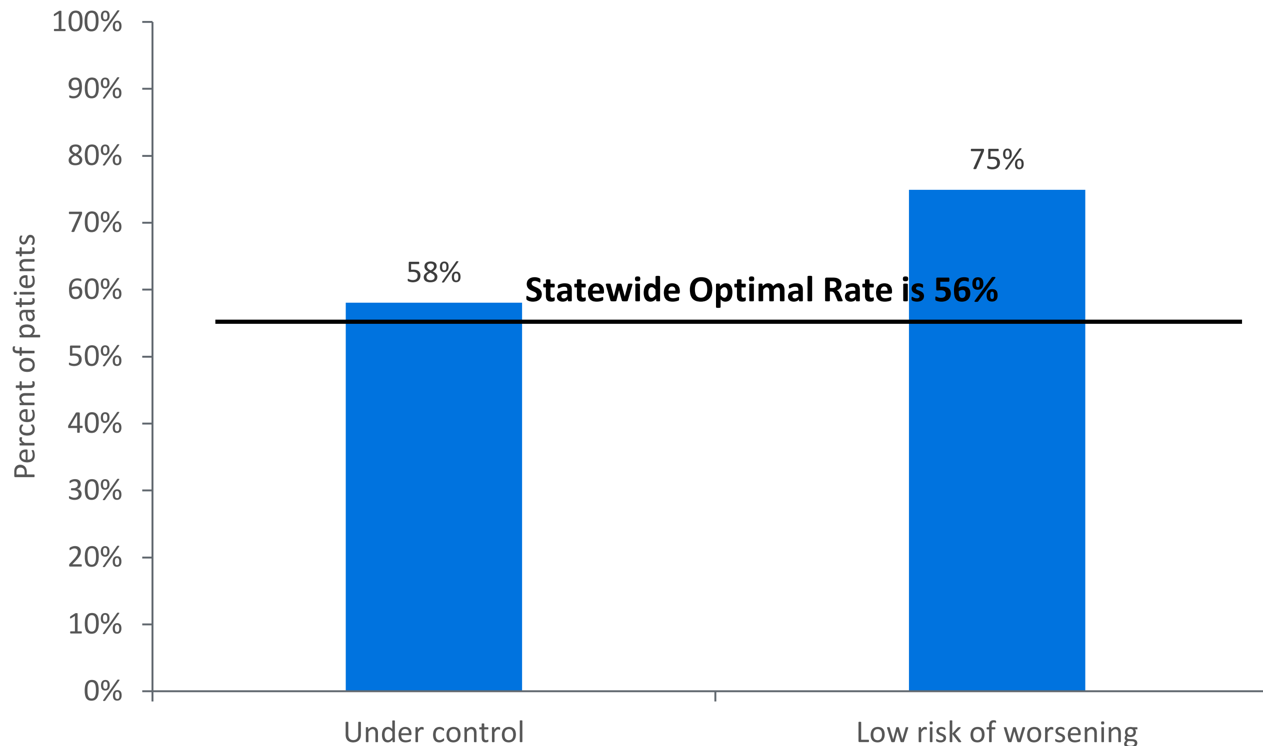
Adult Optimal Asthma Control Component Rates

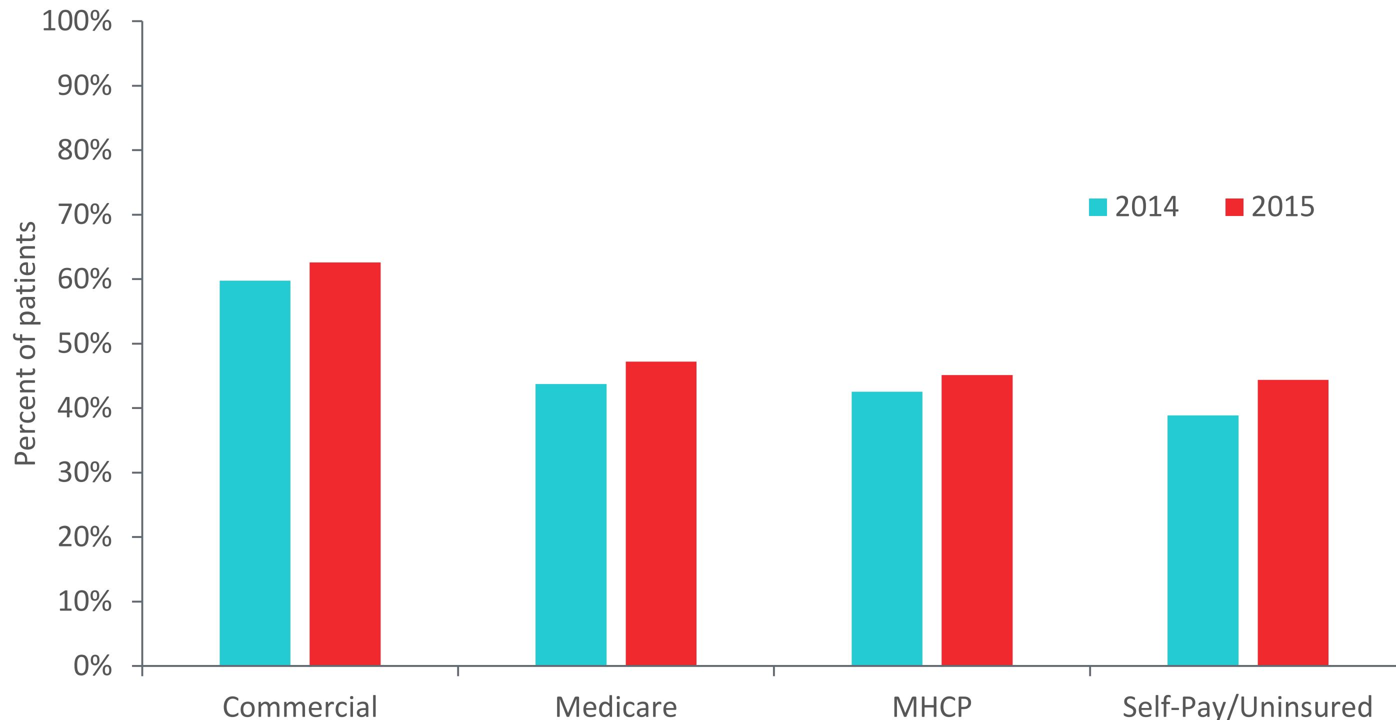
The percentage of adult asthma patients that met both goals was 56%, and a greater share of patients met individual goals. Three-quarters of patients were at low risk of their asthma worsening.



To be included in the statewide optimal rate, patients had to meet both of the above goals.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.
Summary of graph

Adult Optimal Asthma Control Stratified by Health Insurance Type

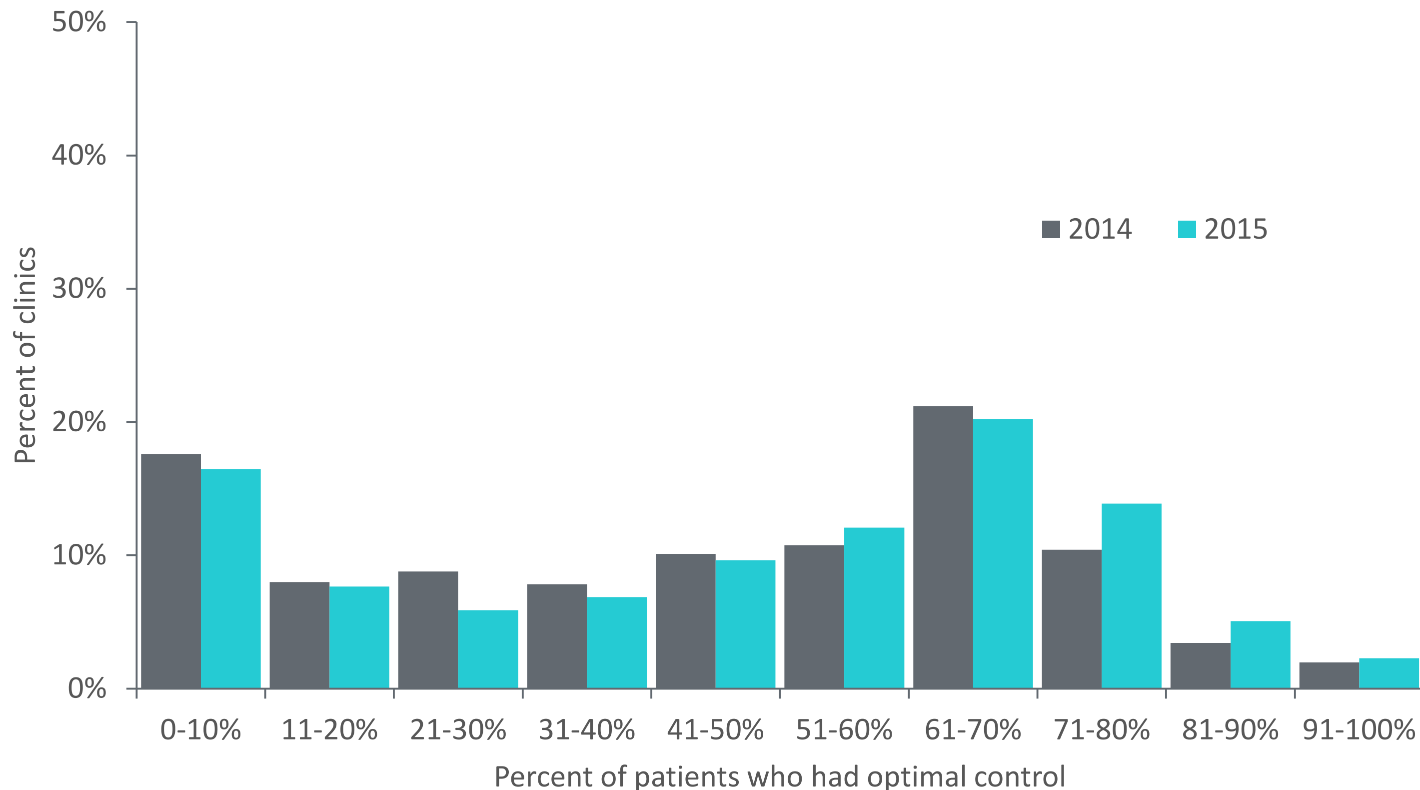
Optimal care rates for patients with commercial insurance were notably higher than rates for patients with other insurance types.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: July 1 through June 30.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Adult Optimal Asthma Control Clinic Performance

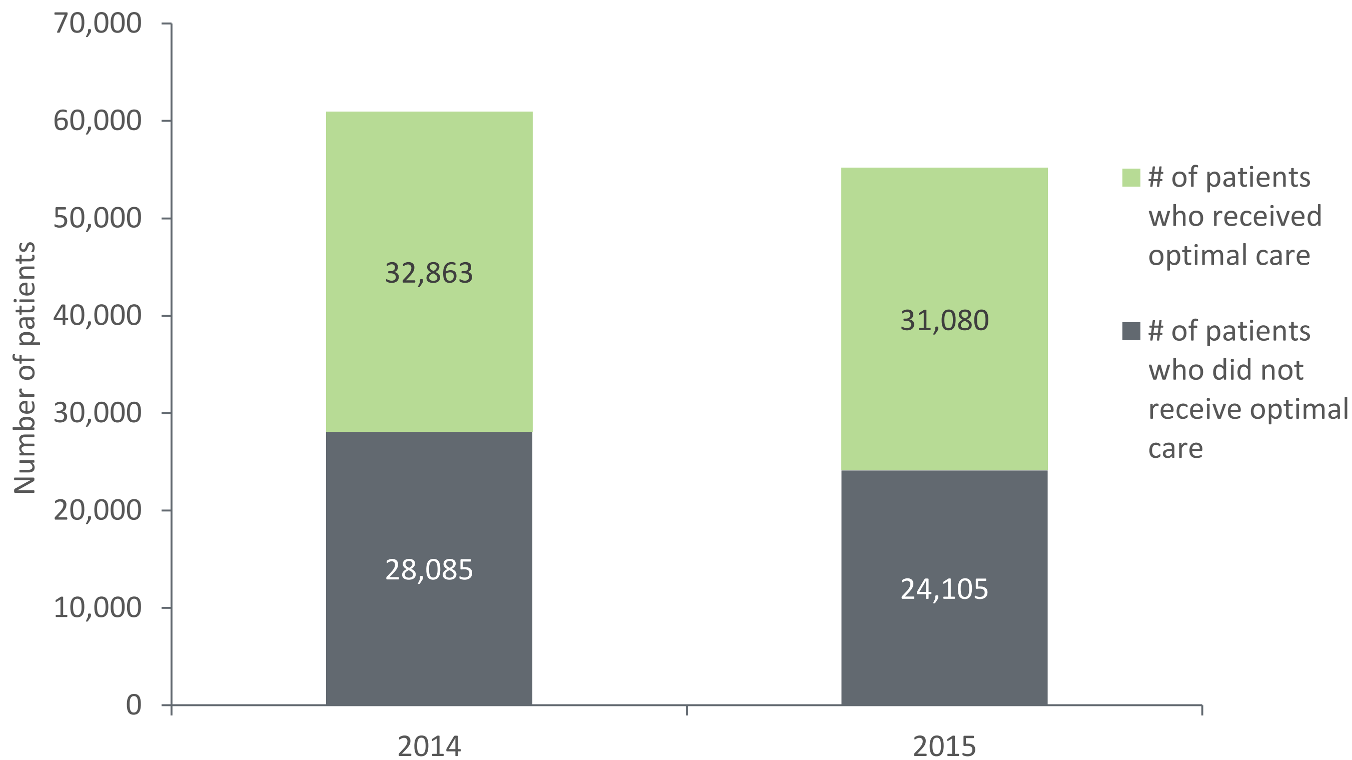
In 2015, compared to 2014, the share of clinics that delivered optimal asthma control to more than 50% of their patients increased by 6 percentage points.



There were 614 reporting clinics in 2014 and 613 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Adult Optimal Asthma Control Patients

The number of patients in the adult asthma control measure decreased by approximately 5,700 between 2014 and 2015. In 2014, the statewide optimal rate was 54% and in 2015 it was 56%.



There were 614 reporting clinics in 2014 and 613 in 2015.

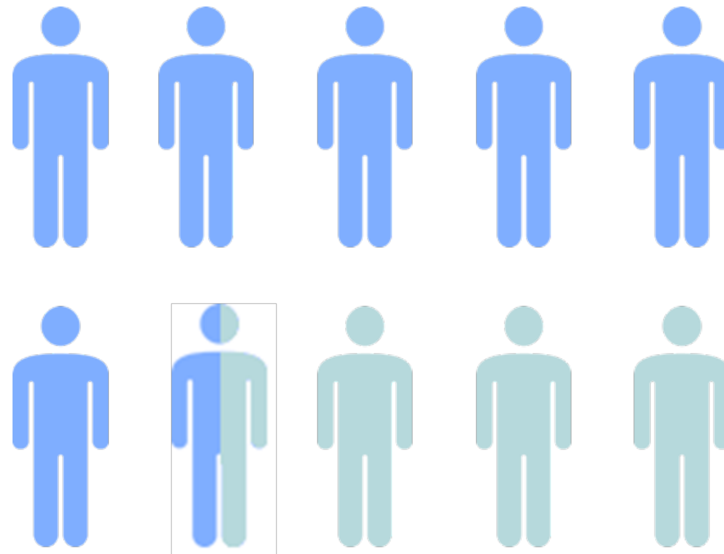
Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Child Optimal Asthma Control Statewide Rate

6 ½ out of every **10**

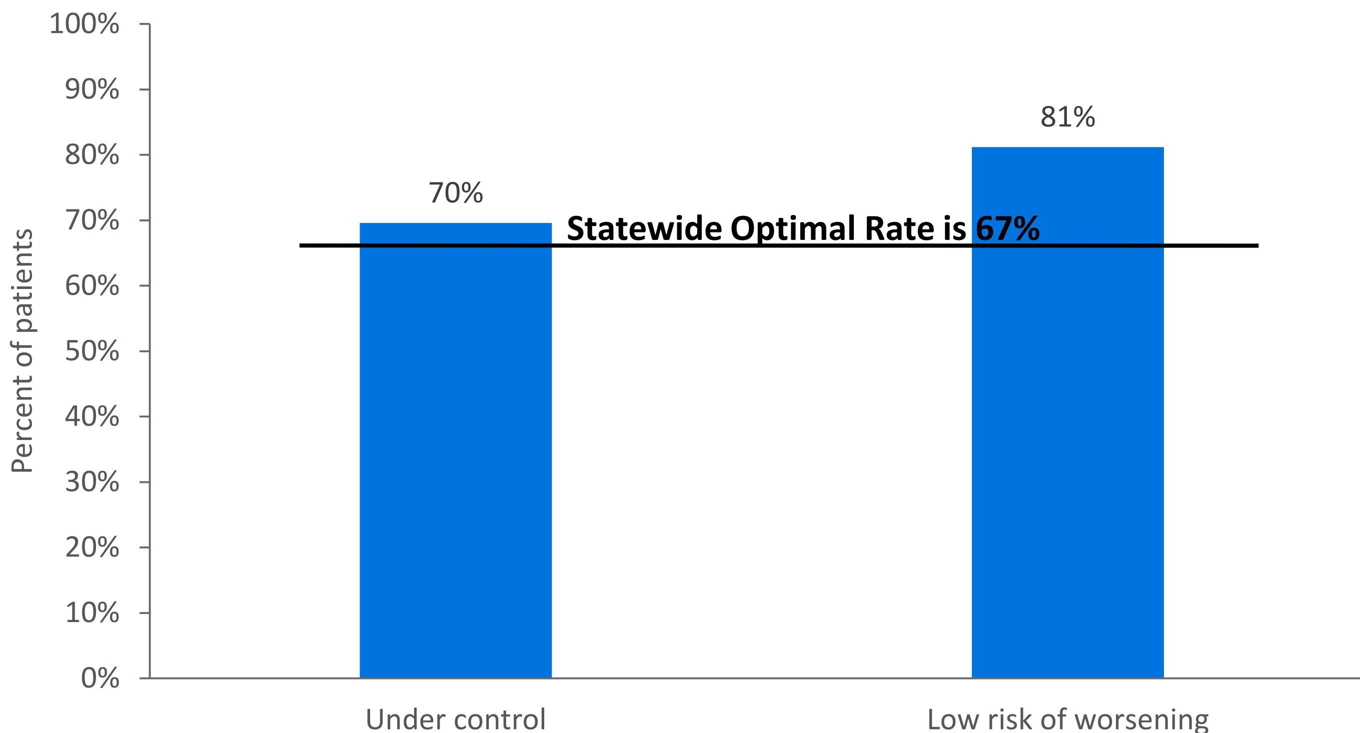
child asthma patients had optimal control



The 2015 statewide optimal control rate was 67%.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Child Optimal Asthma Control Component Rates

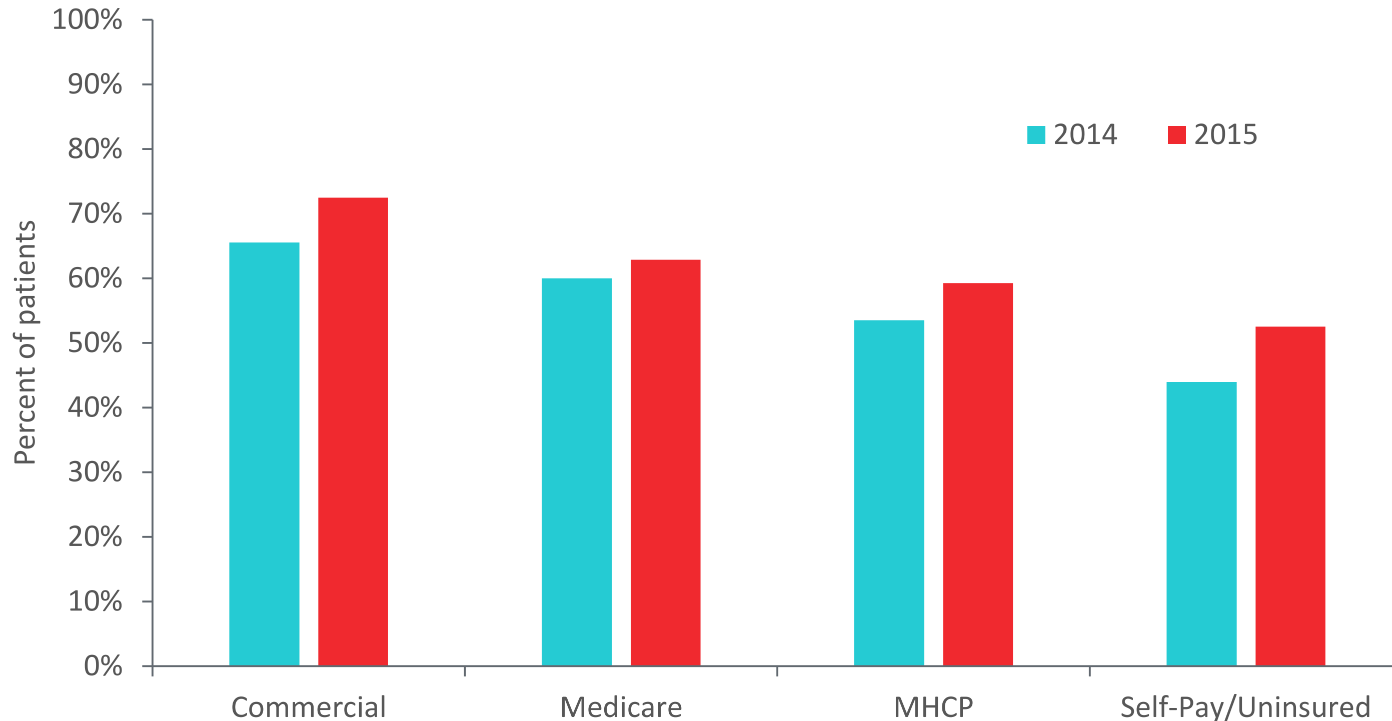
The percentage of child asthma patients that met both goals was 67%, and a greater share of patients met individual goals. Over 80% of patients were at low risk of their asthma worsening.



To be included in the statewide optimal rate, patients had to meet all of the above goals.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.
Summary of graph

Child Optimal Asthma Control Stratified by Health Insurance Type

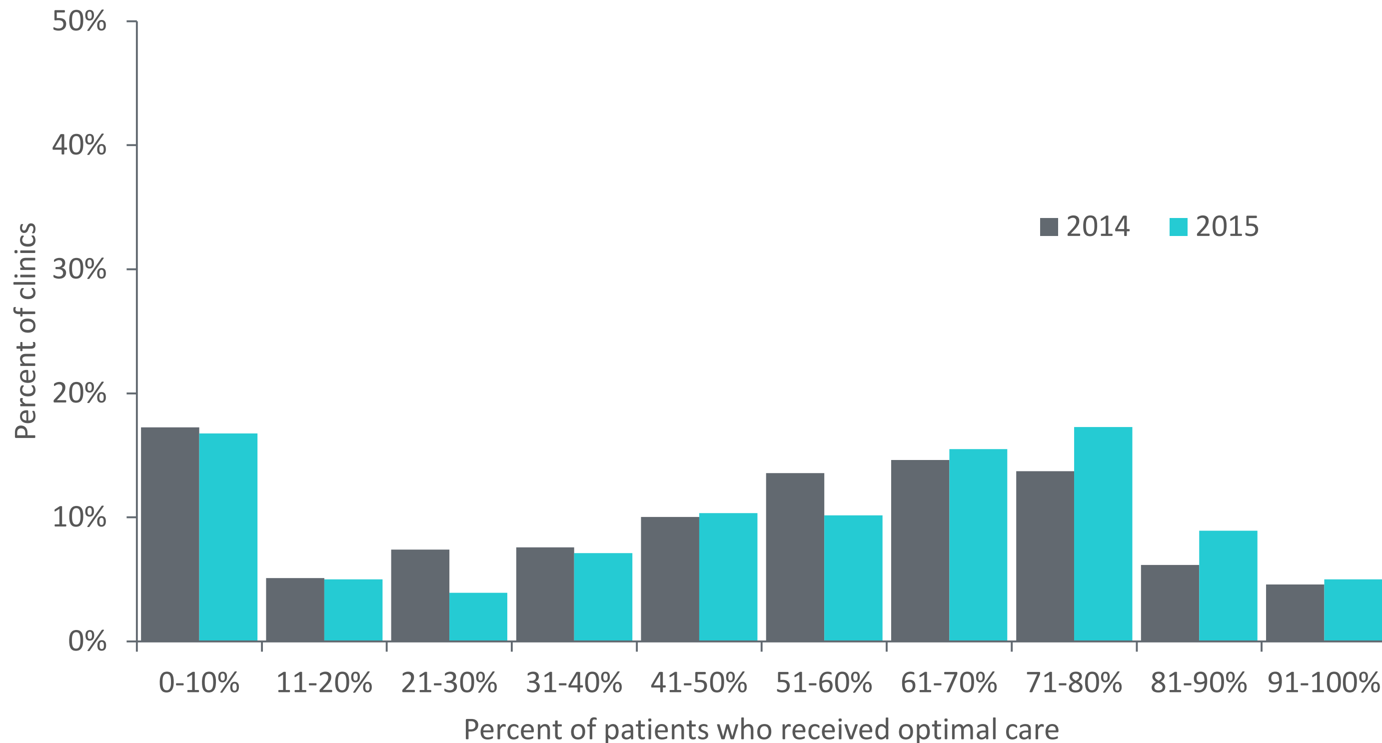
Patients with commercial insurance had the highest optimal control rate in 2014 and 2015.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: July 1 through June 30.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Child Optimal Asthma Control Clinic Performance

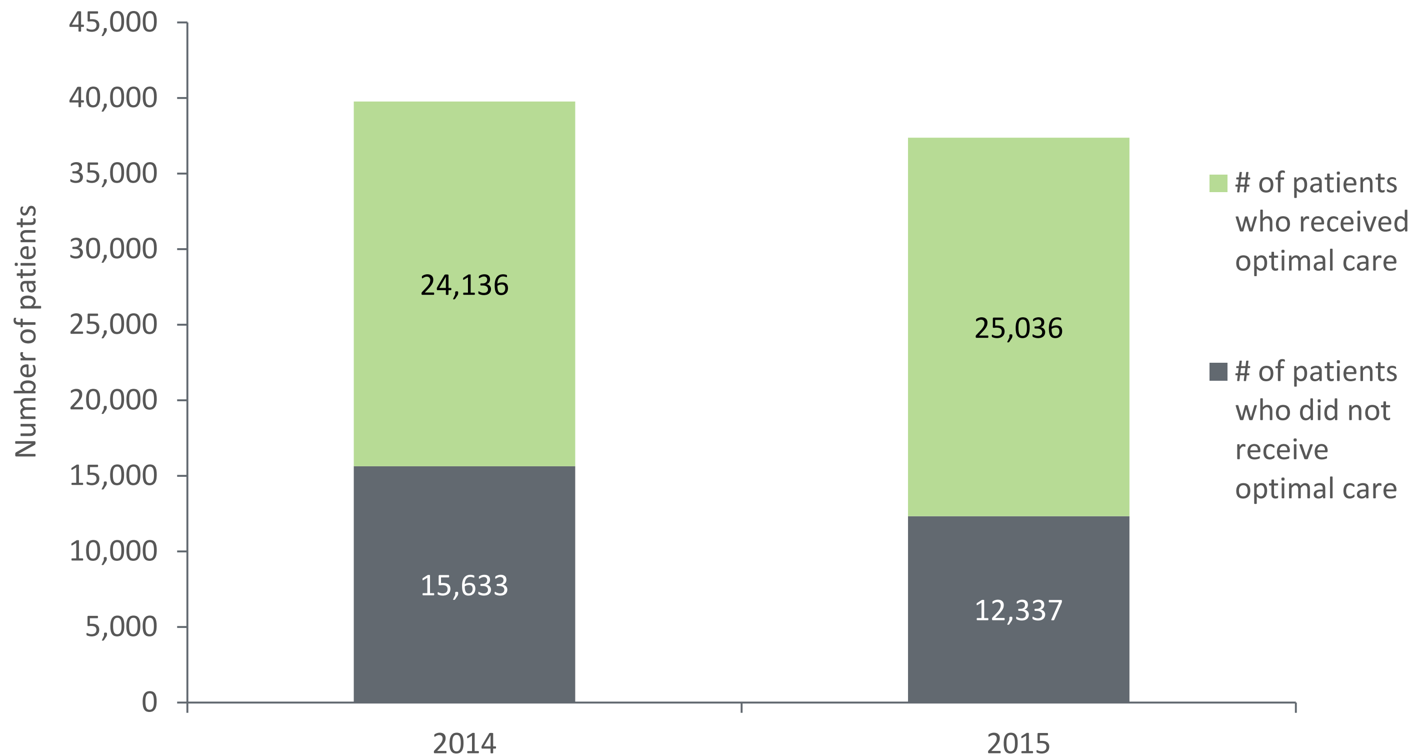
The share of clinics that delivered optimal asthma control to more than 50% of their patients increased by 4 percentage points in 2015.



There were 568 reporting clinics in 2014 and 561 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Child Optimal Asthma Control Patients

The number of patients in the child asthma control measure decreased by approximately 2,400 between 2014 and 2015. In 2014, the statewide optimal rate was 61% and in 2015 it increased to 67%.



There were 568 reporting clinics in 2014 and 561 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

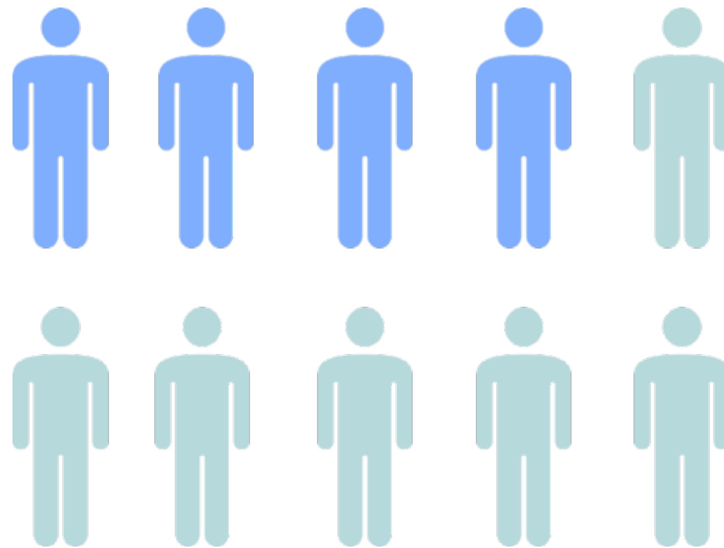
Asthma Education and Self-Management

The percentage of asthma patients, ages 18-50 or 5-17, who have been educated about their condition and have a written asthma self-management plan.

Adult Asthma Education and Self-Management, Statewide Rate

4 out of every **10**

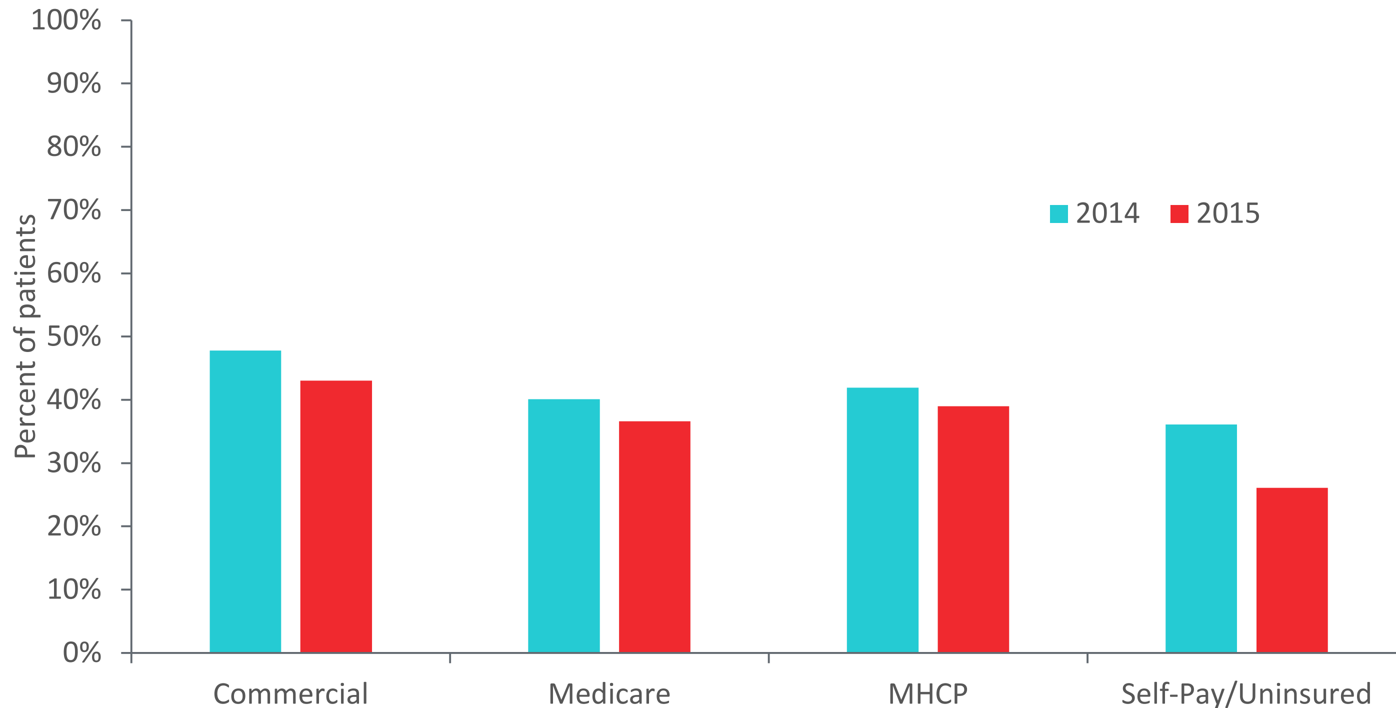
adult asthma patients had asthma education and a self-management plan



The 2015 statewide rate was 41%.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Adult Asthma Education and Self-Management, Stratified by Insurance Type

Patients with commercial insurance had the highest optimal control rate, followed by Minnesota Health Care Programs. Rates for all insurance types decreased between 2014 and 2015.

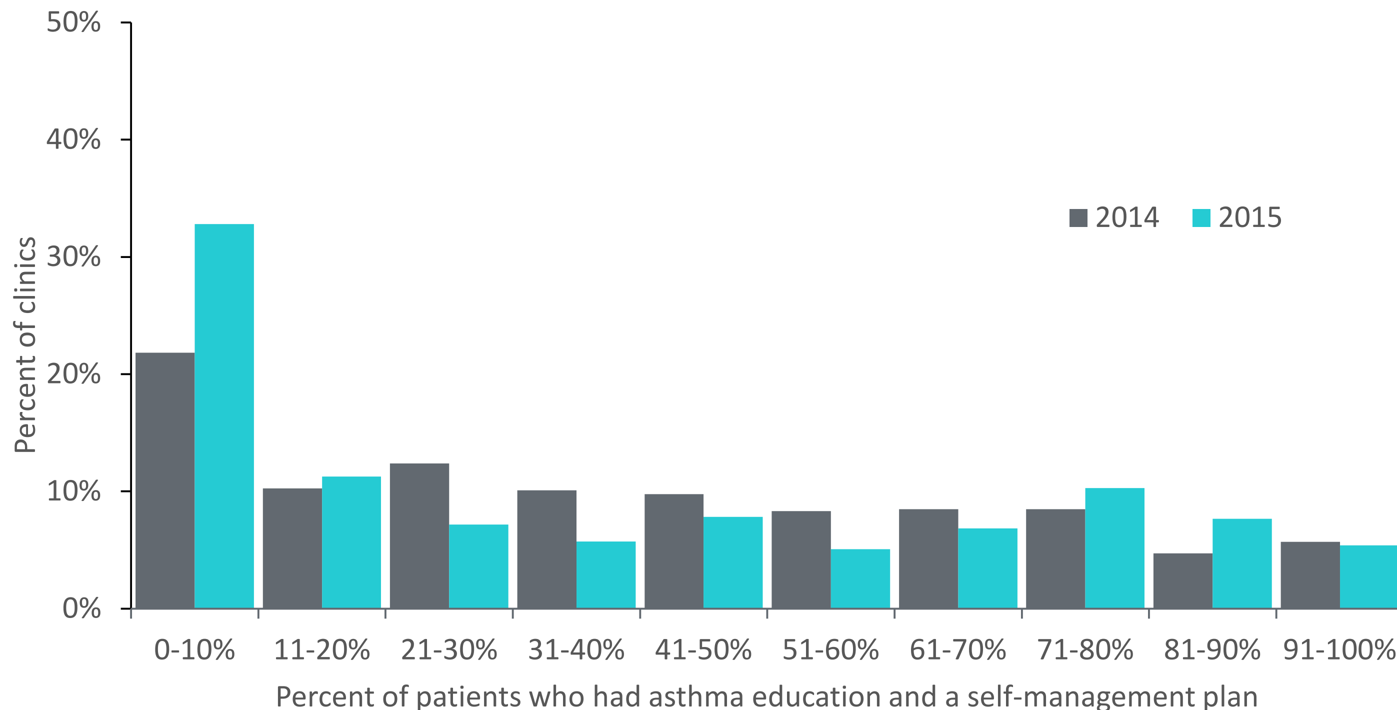


MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: July 1 through June 30.
Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Adult Asthma Education and Self-Management, Clinic Performance

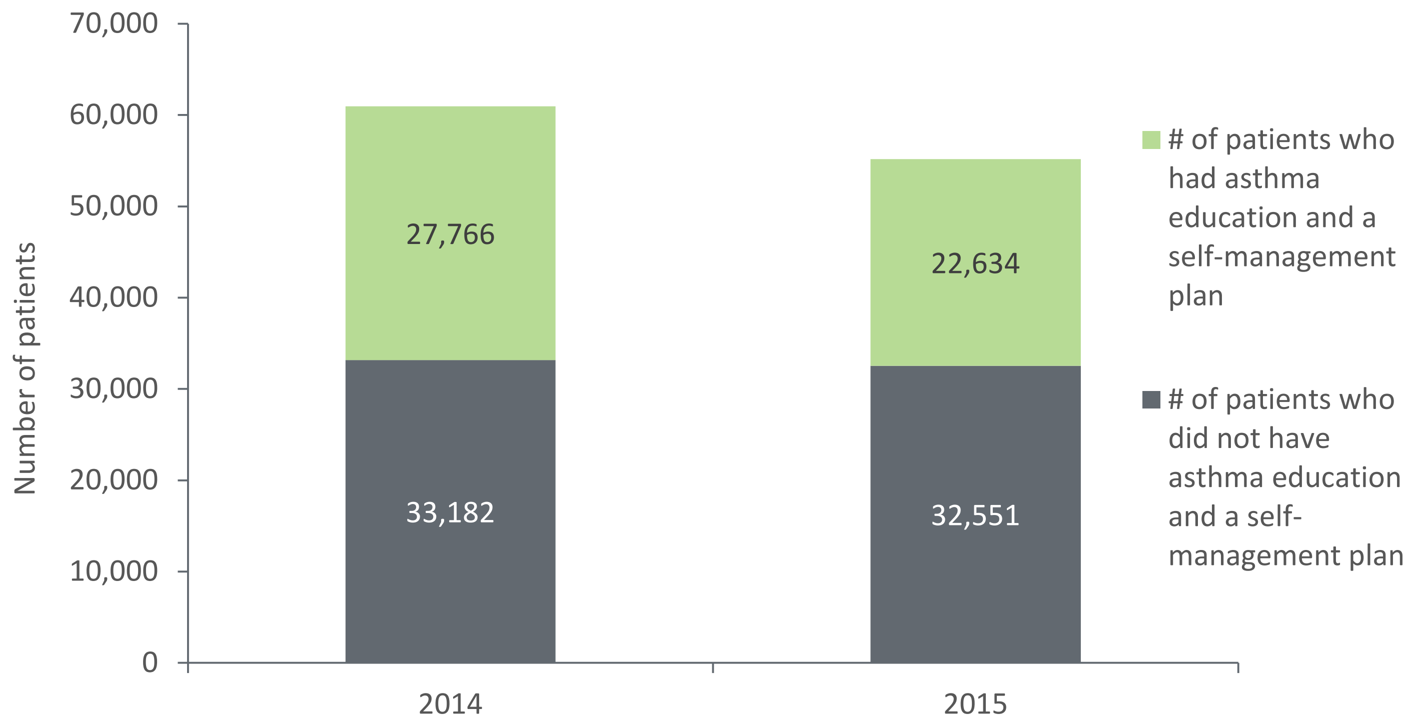
The share of clinics that delivered optimal asthma education and self-management to more than 50% of their patients remained roughly constant from 2014 to 2015 at 35%.



There were 614 reporting clinics in 2014 and 613 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Adult Asthma Education and Self-Management Patients

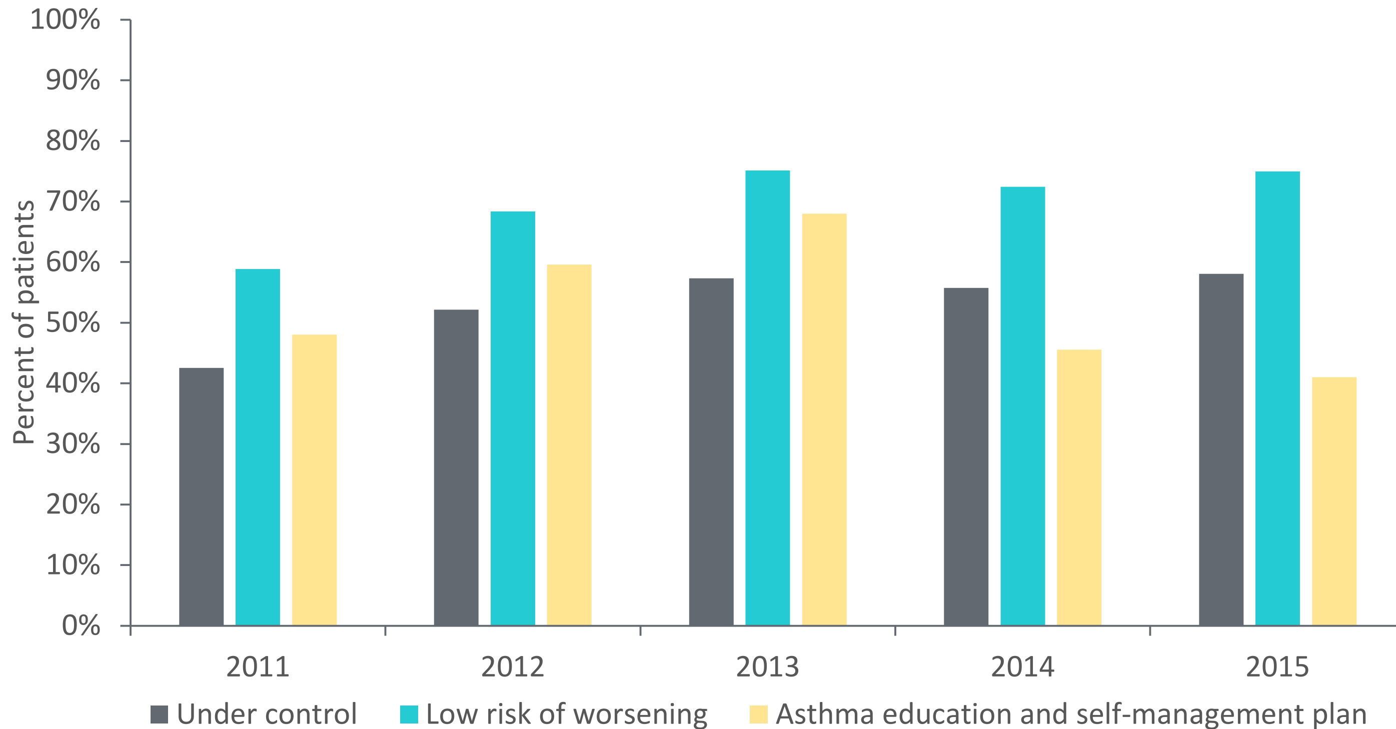
The number of patients in the adult asthma education measure decreased by approximately 5,700 between 2014 and 2015. In 2014, the statewide optimal rate was 46% and in 2015 it decreased to 41%.



There were 614 reporting clinics in 2014 and 613 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Adult Asthma Components

Since 2013, roughly two-thirds of adult asthma patients have had their asthma under control, with low risk of worsening. However, the rate of asthma patients with asthma education and a self-management plan has declined since peaking in 2013.



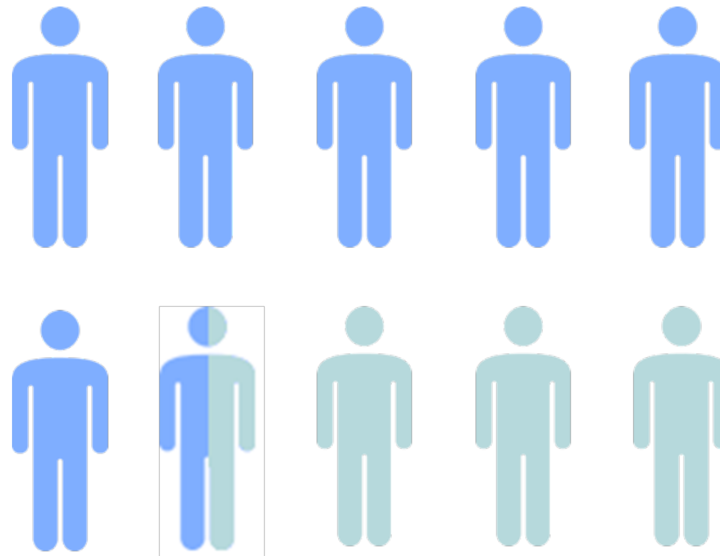
Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Child Asthma Education and Self-Management, Statewide Rate

6 ½ out of every **10**

child asthma patients had asthma education and a self-management plan

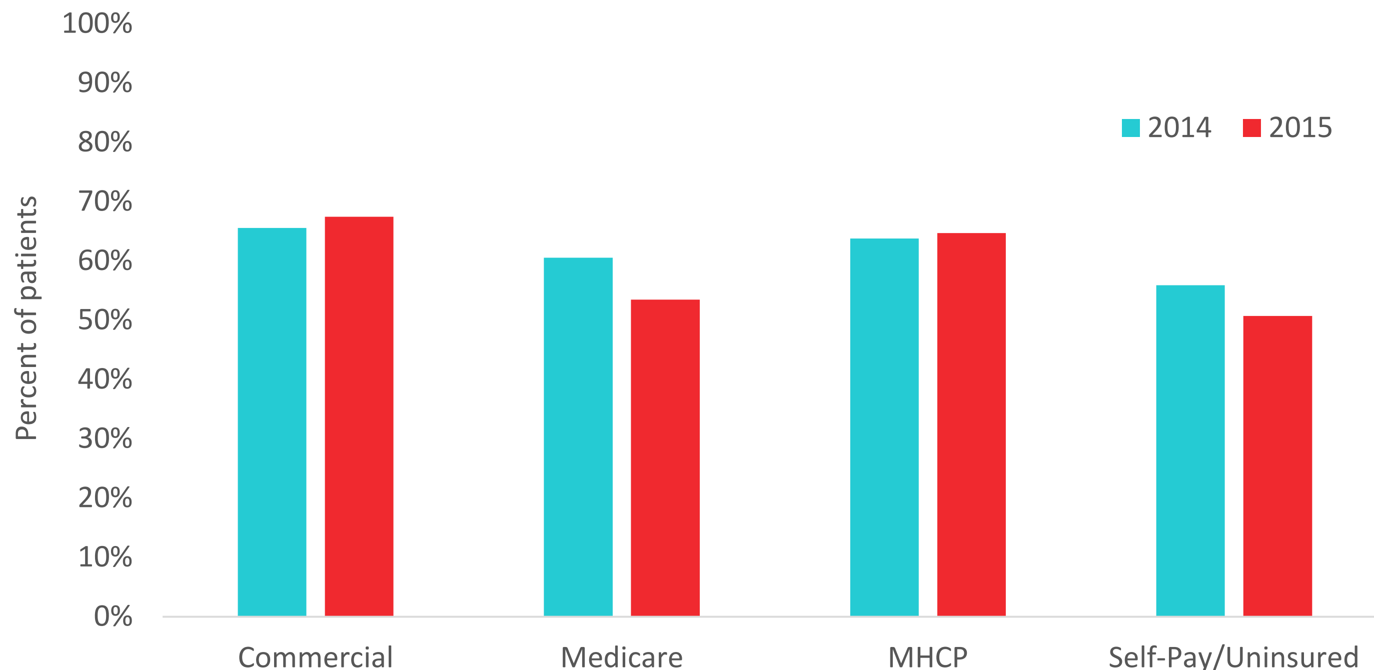


The 2015 statewide rate was 66%.

Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Child Asthma Education and Self-Management, Stratified by Insurance Type

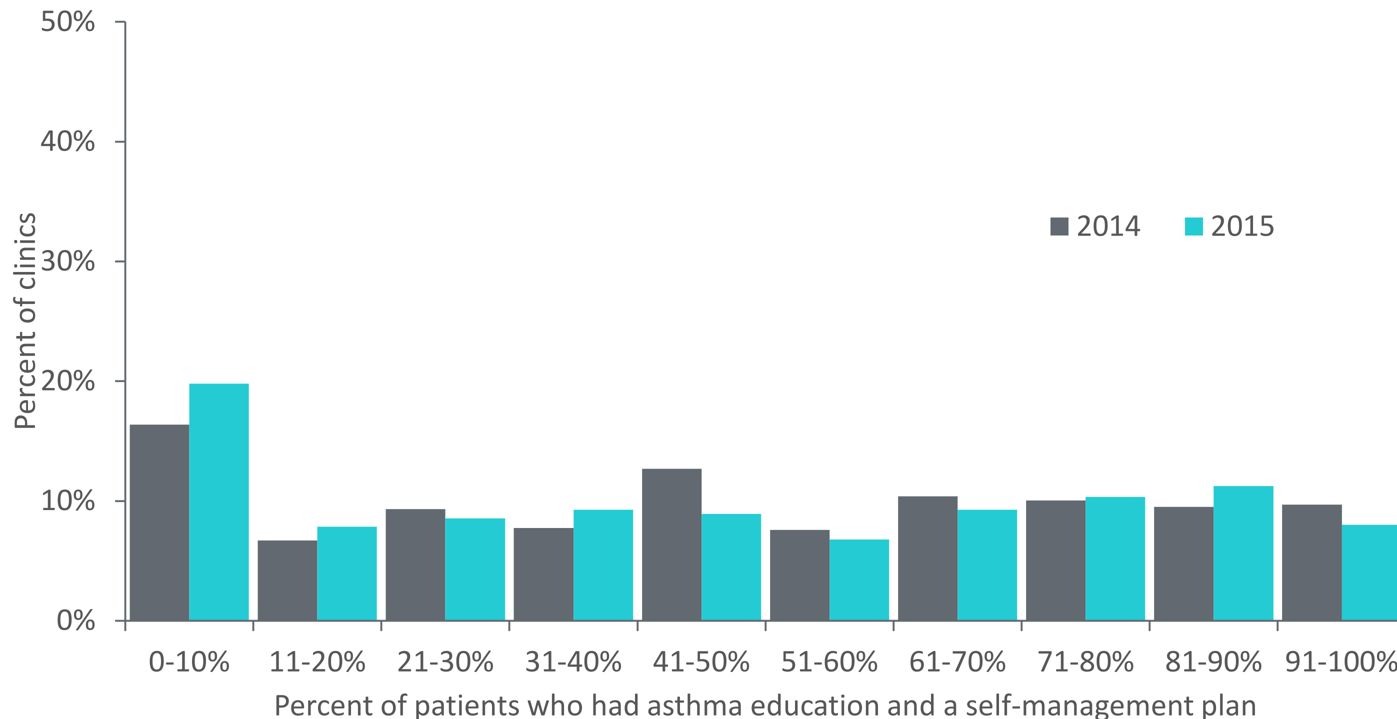
Patients with commercial insurance had the highest optimal control rate, followed by Minnesota Health Care Programs patients.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: July 1 through June 30.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Child Asthma Education and Self-Management, Clinic Performance

The share of clinics that delivered optimal asthma education and self-management to more than 50% of their patients remained roughly constant at 46%.



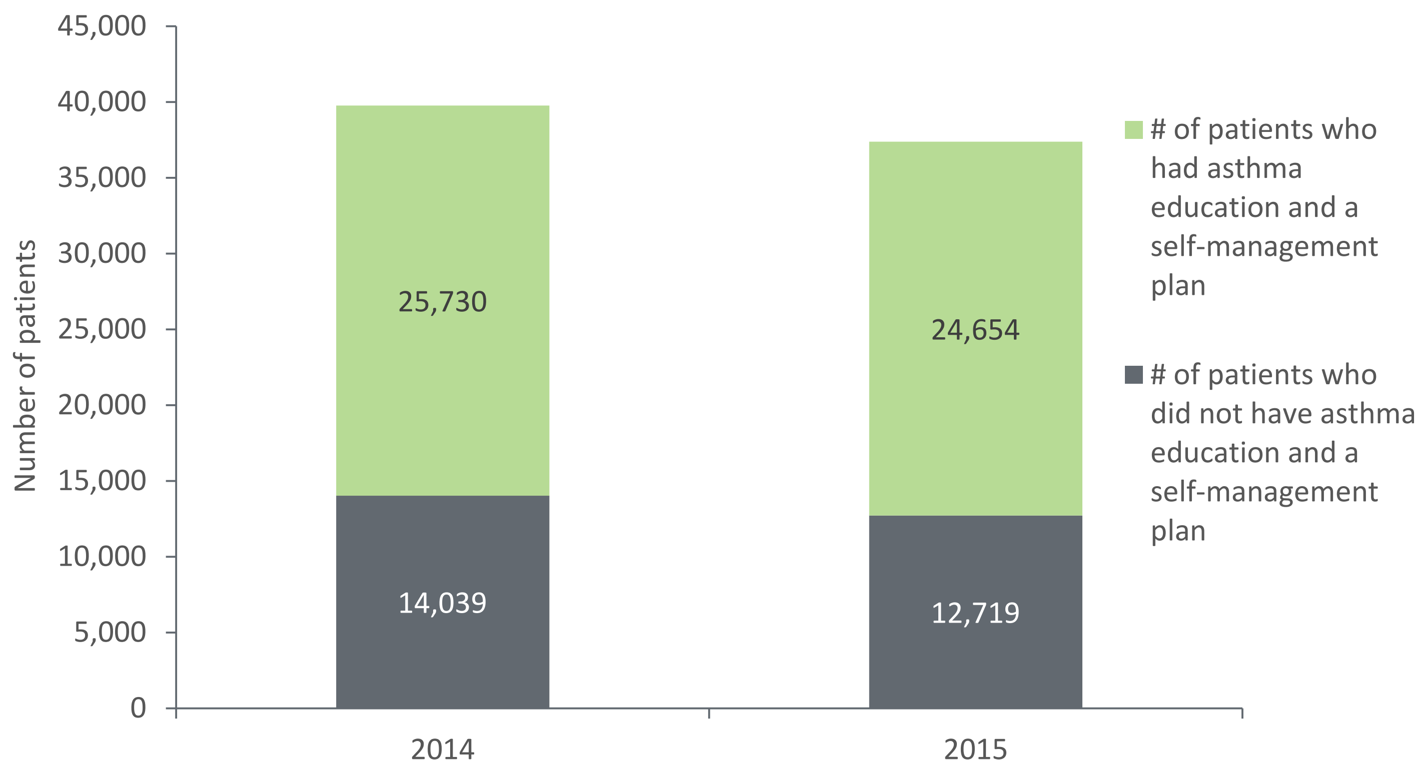
There were 568 reporting clinics in 2014 and 561 in 2015.

Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Child Asthma Education and Self-Management Patients

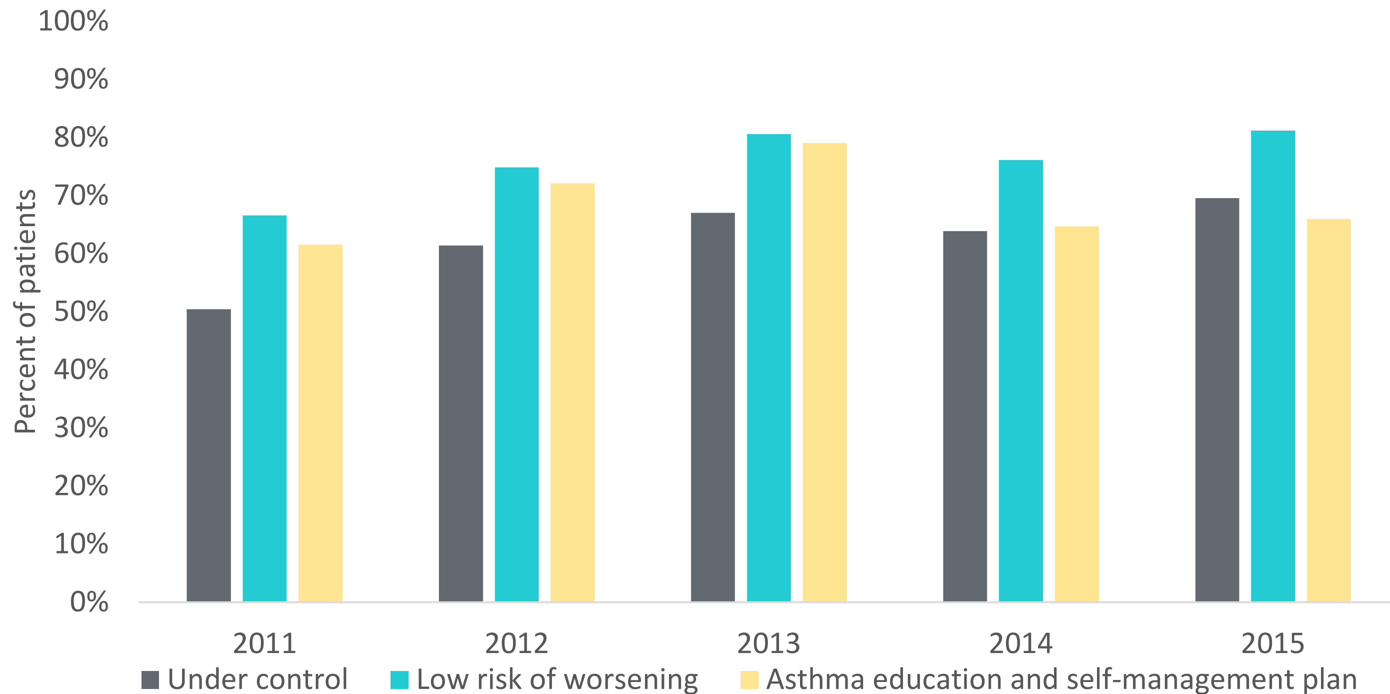
The number of patients in the child asthma education measure decreased by approximately 2,400 between 2014 and 2015. In 2014, the statewide optimal rate was 65% and in 2015 it was 66%.



There were 568 reporting clinics in 2014 and 561 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Child Asthma Components

The rates of child asthma patients who have their asthma under control, with low risk of worsening, rose steadily until 2013. After small decreases in 2014, these rates rose slightly again in 2015. The rate of child asthma patients with asthma education and a self-management plan peaked at 79% in 2013, and has since dropped to 66%.



Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Colorectal Cancer Screening

The percentage of patients ages 50-75 who are up to date with appropriate colorectal cancer screening exams, which include **ANY** of the following methods:

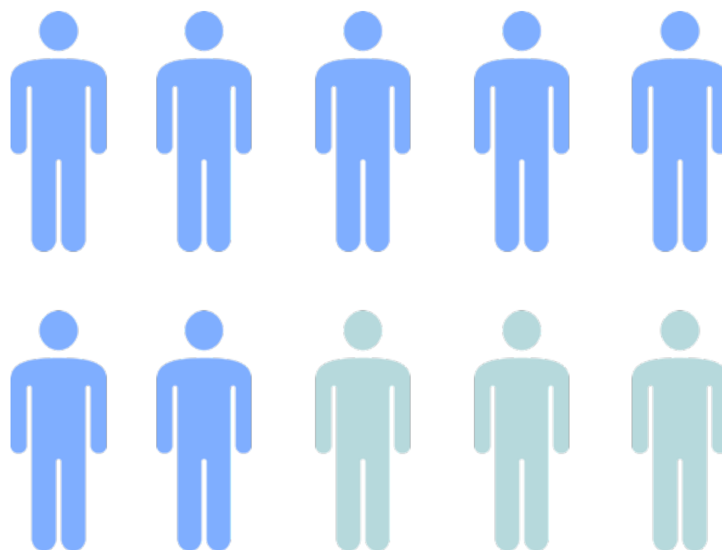
1) Colonoscopy within the measurement period or prior 9 years
2) Sigmoidoscopy within the measurement period or prior 4 years
3) Stool blood test within the measurement period

Definitions:
(1) Colonoscopy: An exam used to detect changes or abnormalities in the large intestine (colon) and rectum.
(2) Sigmoidoscopy: An exam used to evaluate the lower part of the large intestine (colon).
(3) Stool blood test: A lab test used to check stool samples for hidden blood, which may be an indicator of colon cancer or polyps in the colon or rectum.
The USPSTF recommends regular colorectal cancer screening for adults ages 50-75 using the tests described above.
Measure steward: MN Community Measurement

Colorectal Cancer Screening Statewide Rate

7 out of every **10**

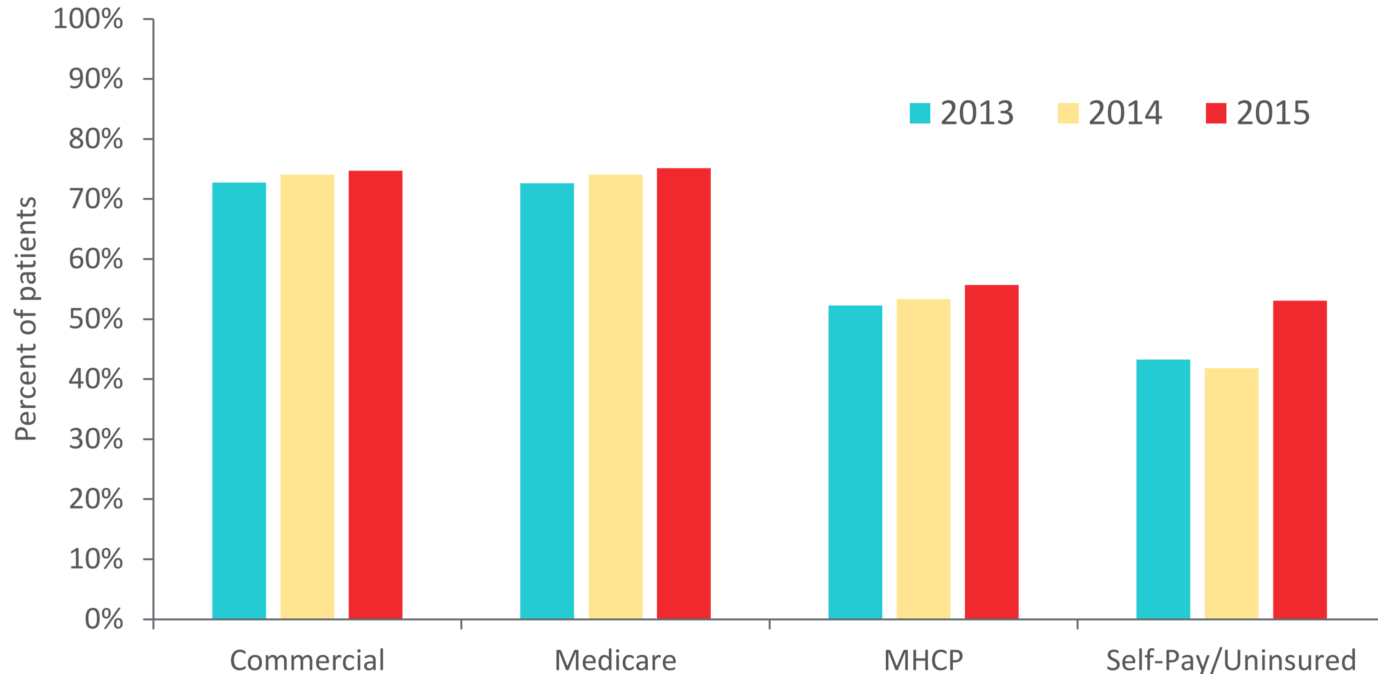
adult patients were screened for colorectal cancer



The 2016 statewide screening rate was 72%.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Colorectal Cancer Screening Stratified by Health Insurance Type

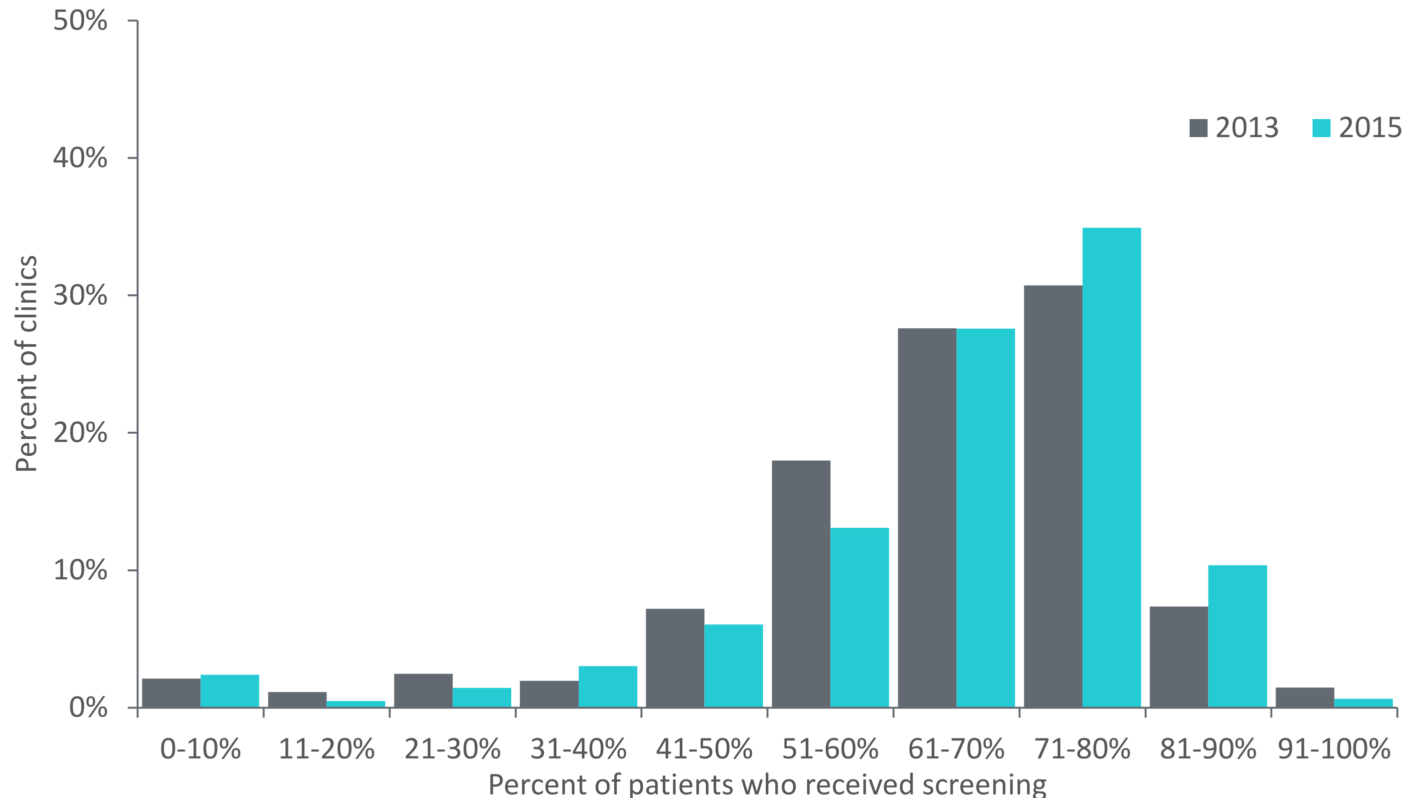
Optimal care rates for patients with commercial insurance and Medicare were notably higher than rates for MHCP and self-pay/uninsured patients.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: July 1 through June 30.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Colorectal Cancer Screening Clinic Performance

The share of clinics that screened more than 50% of their patients for colorectal cancer remained roughly constant from 2013 to 2015 at 87%.



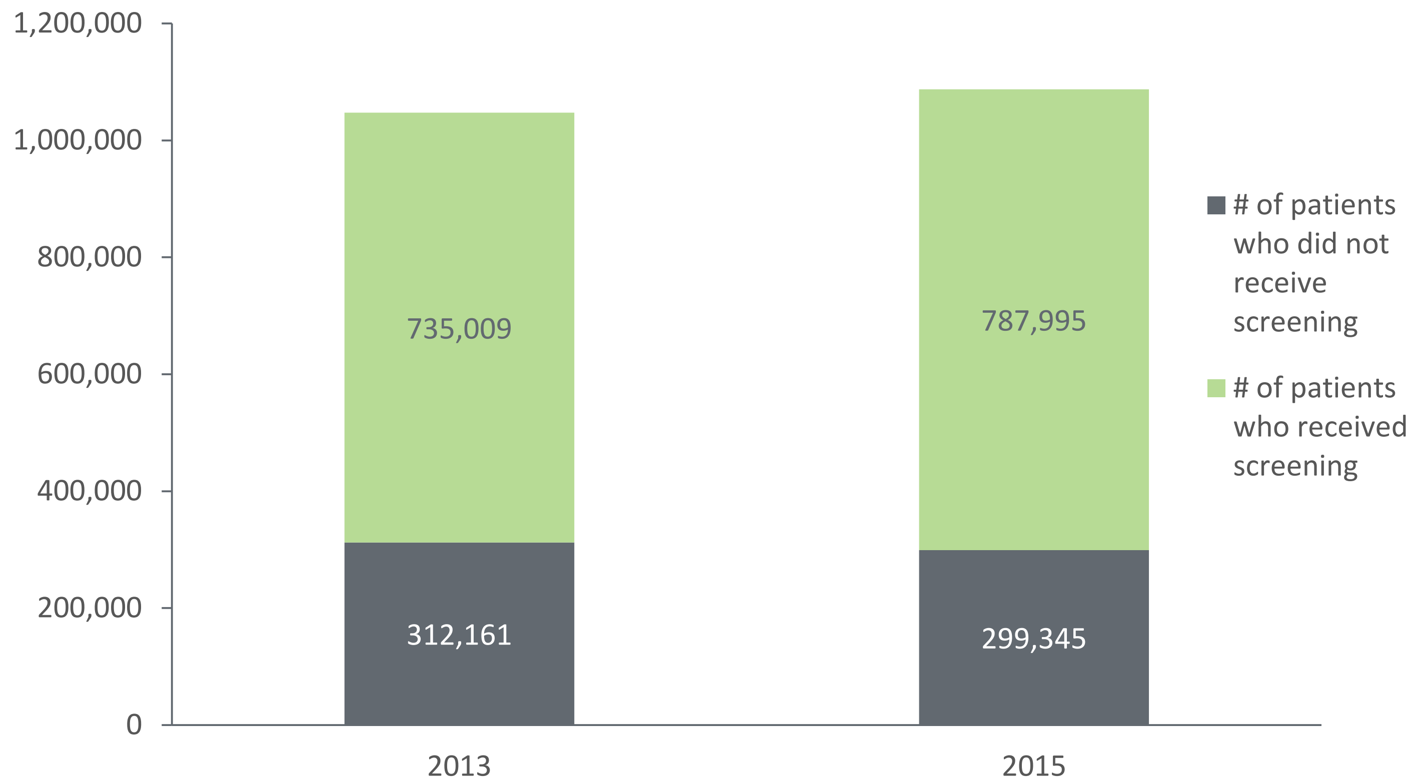
There were 612 reporting clinics in 2013 and 627 in 2015.

Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Colorectal Cancer Screening Patients

Approximately 53,000 more patients were screened in 2015 as compared to 2013. In 2013, the statewide screening rate was 70% and in 2015 it was 72%.



There were 612 reporting clinics in 2013 and 627 in 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Depression Remission at Six Months

The percentage of patients with Major Depression or Dysthymia who reached remission six months (+/- 30 days) after an initial visit

To achieve remission, patients must score below 5 on the Patient Health Questionnaire-9 (PHQ-9) tool

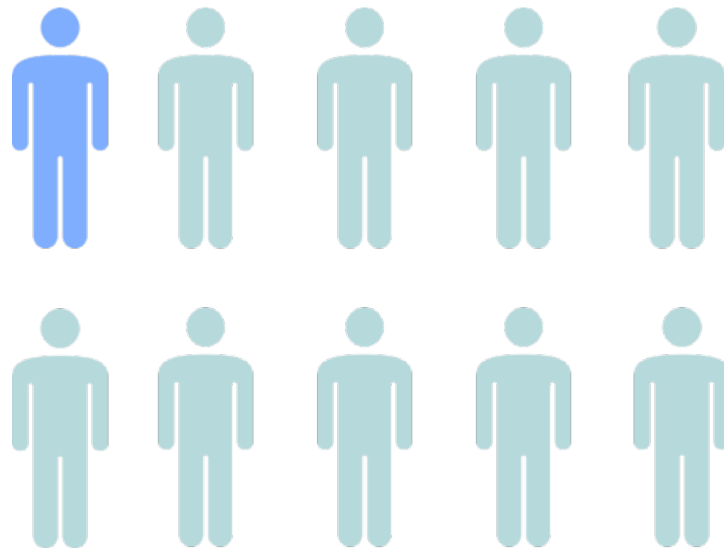
Patients are not counted as having reached remission if they do not complete a PHQ-9 six months (+/- 30 days) after their initial visit

Measure steward: MN Community Measurement
National Quality Forum# 0711

Depression Remission at Six Months Statewide Rate

1 out of every **10**

depression patients achieved remission in six months

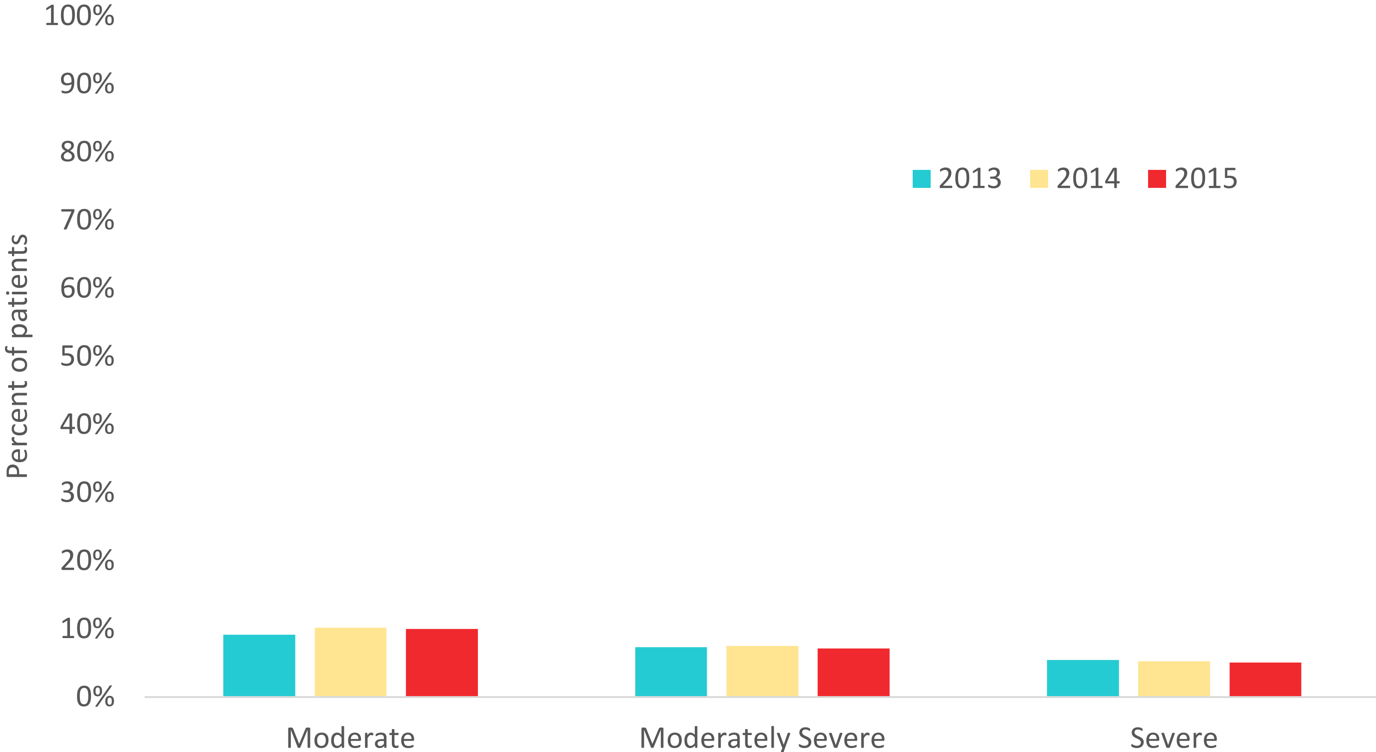


The 2015 statewide rate was 8%.

Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Depression Remission at Six Months Stratified by Severity

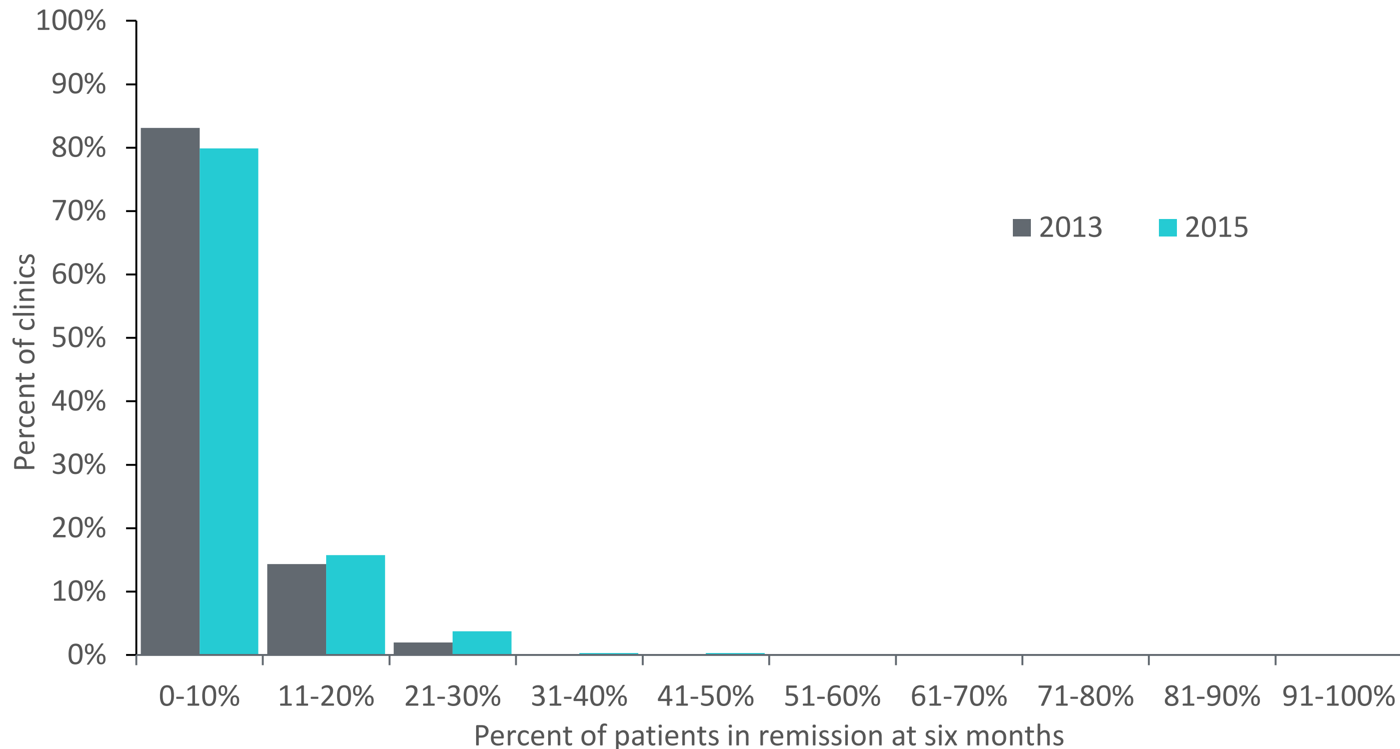
Patients with moderate depression had the highest remission rate for all three years.



Severity is determined by initial PHQ-9 scores.
Index year: January 1 through December 31.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Depression Remission at Six Months Clinic Performance

In 2015, compared to 2013, the share of clinics where more than 10% of depression patients achieved remission at six months increased by 3 percentage points to 20%.



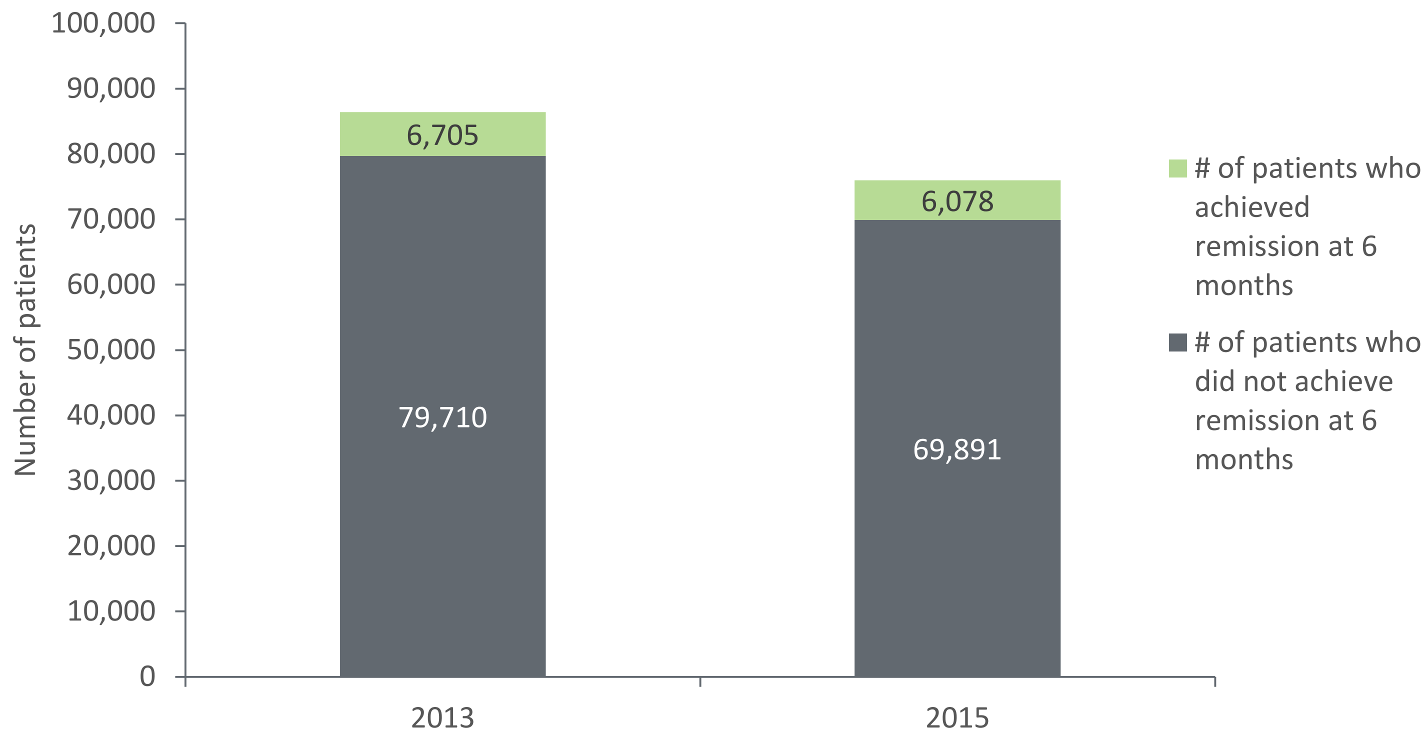
There were 599 reporting clinics in 2013, and 591 in 2015.

Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Depression Remission at Six Months Patients

There were over 10,000 fewer patients in the depression remission measure in 2015 as compared to 2013. The statewide remission rate remained roughly constant at 8%.



There were 599 reporting clinics in 2013, and 591 in 2015.
In 2015, to be included in this measure, patients had to have a PHQ-9 greater than 9 and a diagnosis of major depression or dysthymia. Previously, this diagnosis was only required at the first-ever index contact between patient and provider.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Adolescent Mental Health and/or Depression Screening

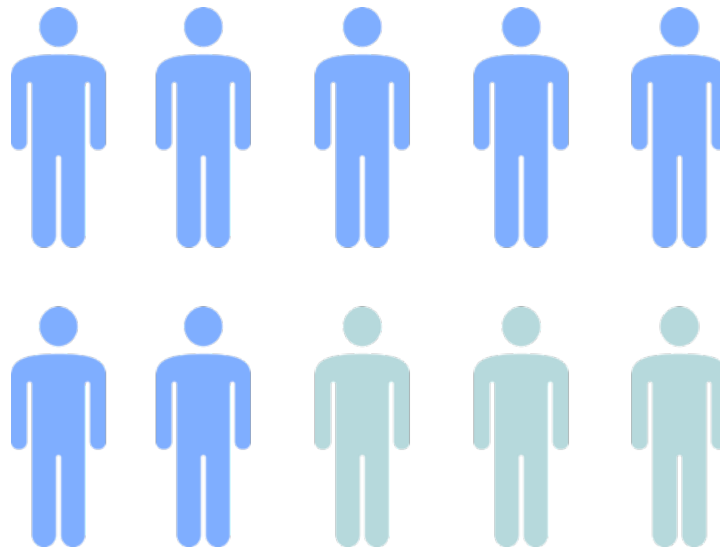
The percentage of patients 12-17 years of age who were screened for mental health and/or depression

Patients may be screened using any of the following tools: 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); Global Appraisal of Individual Needs screens for mental health and substance abuse (GAIN-SS).
Measure steward: MN Community Measurement

Adolescent Mental Health and/or Depression Screening, Statewide Rate

7 out of every **10**

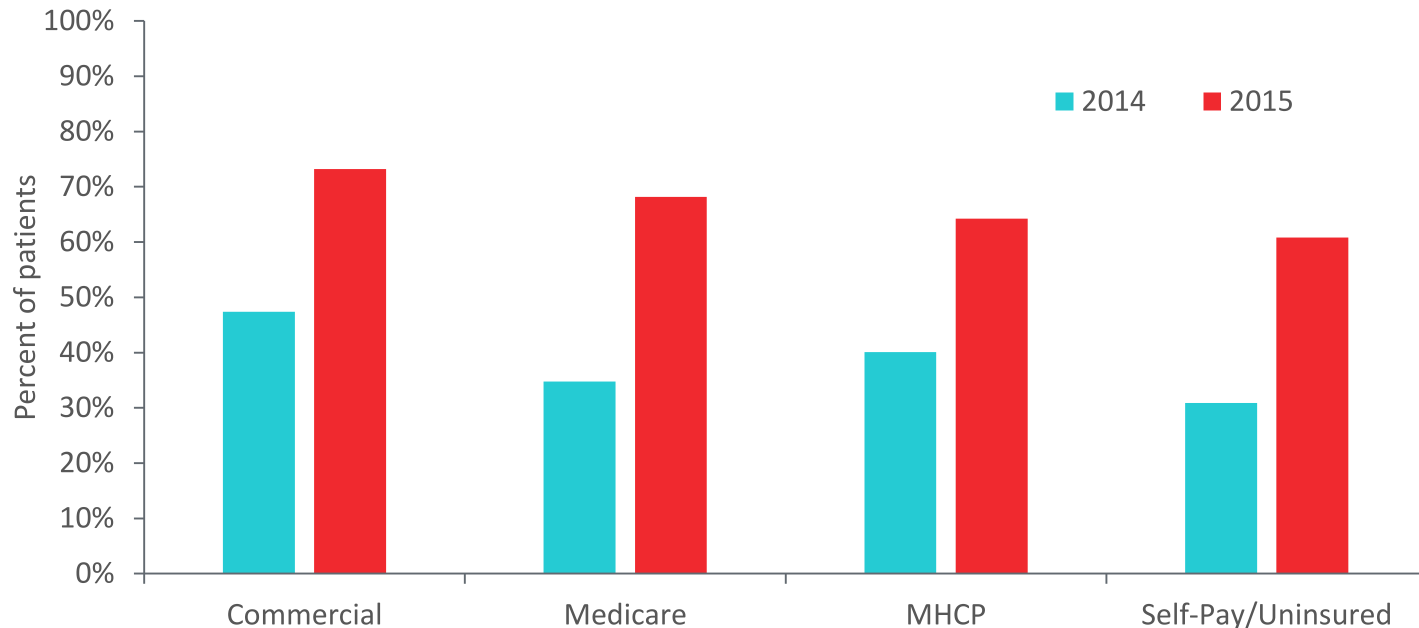
adolescent patients were screened for mental health or depression



The 2015 statewide screening rate was 70%.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2015 service dates.

Adolescent Mental Health and/or Depression Screening, Stratified by Insurance Type

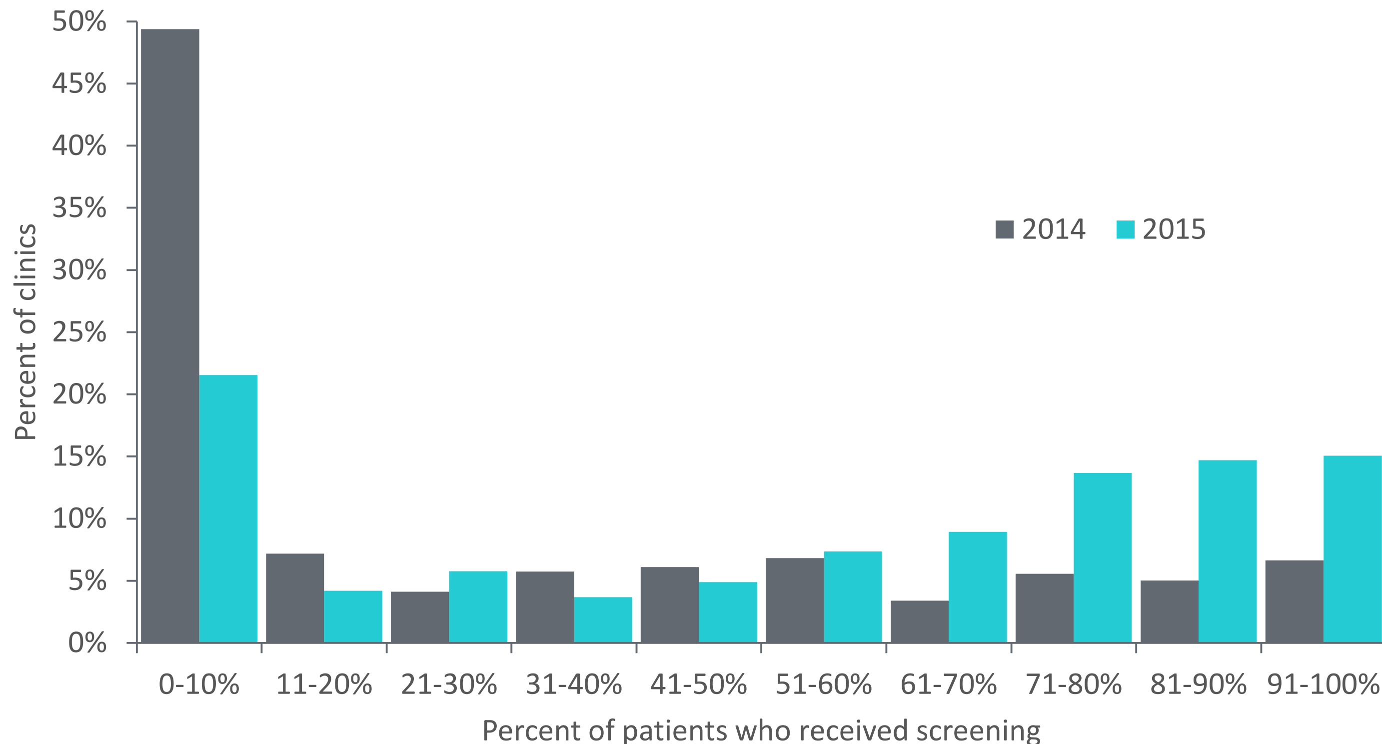
Patients with commercial insurance had the highest screening rates. Rates for all insurance types increased between 2014 and 2015.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Service year: January 1 through December 31.
The first year of reporting for this measure was 2014.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Adolescent Mental Health and/or Depression Screening, Clinic Performance

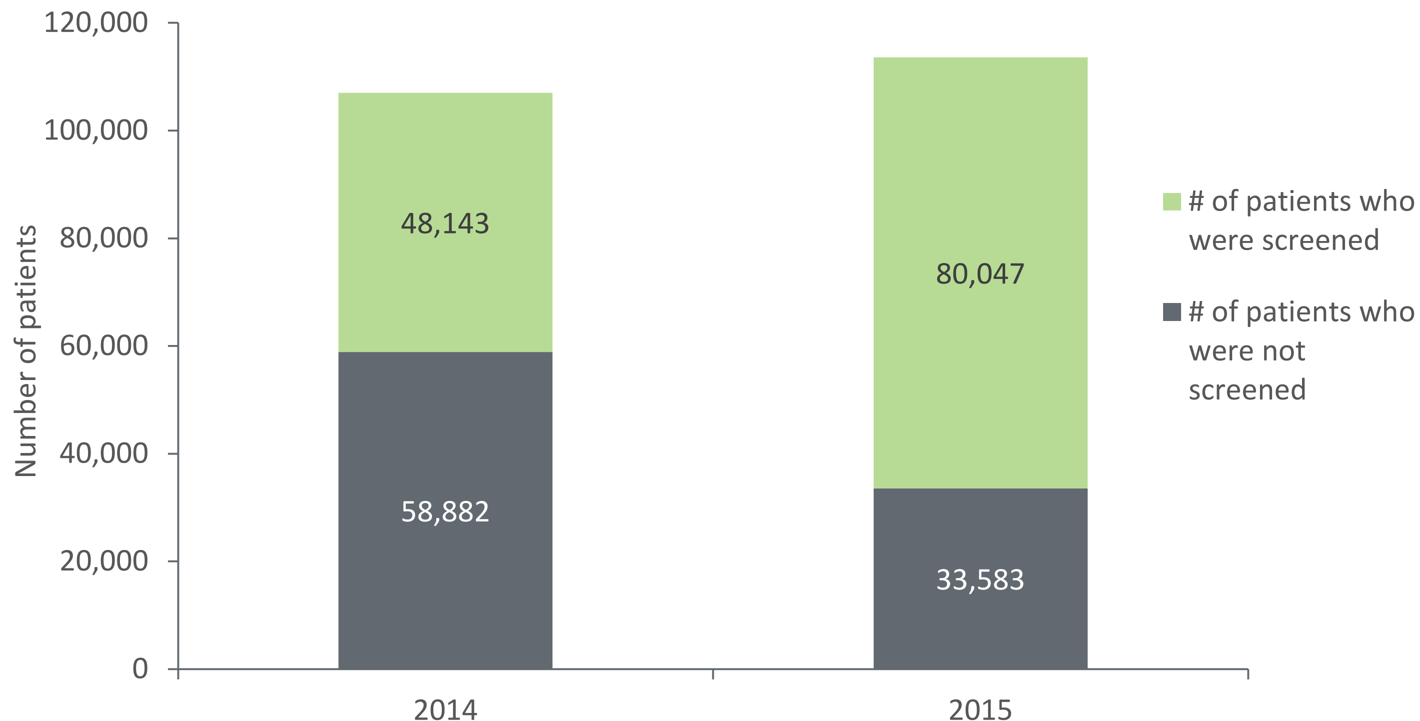
In 2015, compared to 2014, the share of clinics that screened more than 50% of their patients for mental health or depression increased by 32 percentage points.



There were 557 reporting clinics in 2014 and 571 in 2015.
The first year of reporting for this measure was 2014.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Adolescent Mental Health and/or Depression Screening Patients

Nearly 32,000 more patients were screened in 2015 as compared to 2014. In 2014, the statewide screening rate was 45% and in 2015 it was 70%.



There were 558 reporting clinics in 2014 and 571 in 2015.
The first year of reporting for this measure was 2014.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Spinal Surgery: Lumbar Fusion Functional Status and Pain

The average change (preoperative to 1 year post-operative) in functional status or pain, respectively, for patients 18 years of age or older who had lumbar spine fusion surgery.

Functional status is measured using the Oswestry Disability Index (ODI), which asks patients about 10 topics, including:

- Pain
- Ability to lift, walk, sit and stand
- Quality of life issues

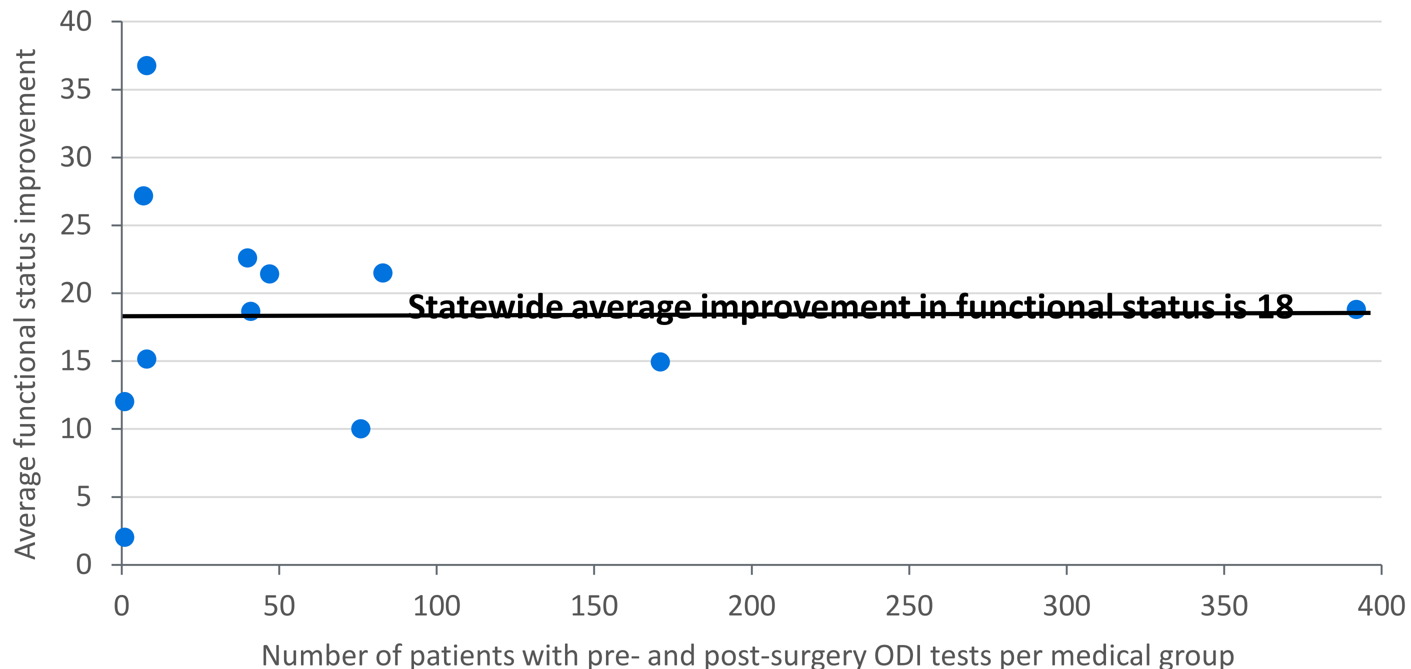
Pain is measured using the Visual Analog Scale (VAS) for leg and back pain. VAS asks patients to rate their pain on a 1-10 scale.

Patients complete tests 3 months before surgery and at 1 year (+/- 3 months) after surgery to measure change. A positive average change indicates that patients had improved functional status or less pain after surgery.

Measure steward: MN Community Measurement
National Quality Forum #2643

Spinal Surgery: Lumbar Fusion Average Functional Status Improvement

Average change in functional status after lumbar fusion surgery varied across medical groups. The largest average improvement in functional status was 36.8, and the smallest average improvement was 2. The statewide average improvement in functional status was 18. This indicates that on average, patients had improved functional status after surgery.



In report year 2016, 16 medical groups that provided lumbar fusion surgeries in 2014 reported some data to MDH; and of these, 12 medical groups provided patients with pre-and post-surgery ODI tests.

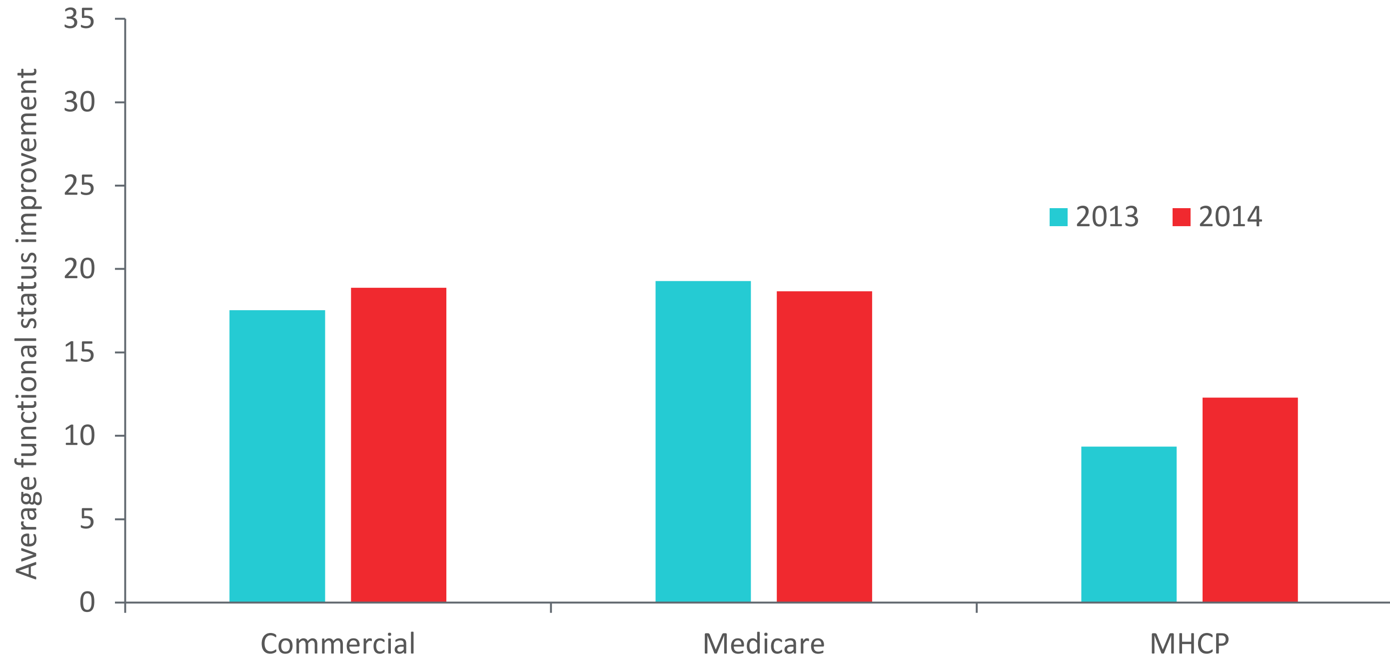
Two eligible medical groups—Twin Cities Orthopedics and St. Cloud Orthopedics—did not report procedures or results to MDH; therefore, measure results may not be representative of the full lumbar fusion patient population.

Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 dates of procedure.

Summary of graph

Spinal Surgery: Lumbar Fusion Average Functional Status Improvement Stratified by Insurance Type

Patients with commercial insurance and Medicare had the most improvement in functional status after surgery in 2014.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.

Dates of procedure: January 1 through December 31, 2013 and 2014; 2013 was the first year of data collection for this measure.

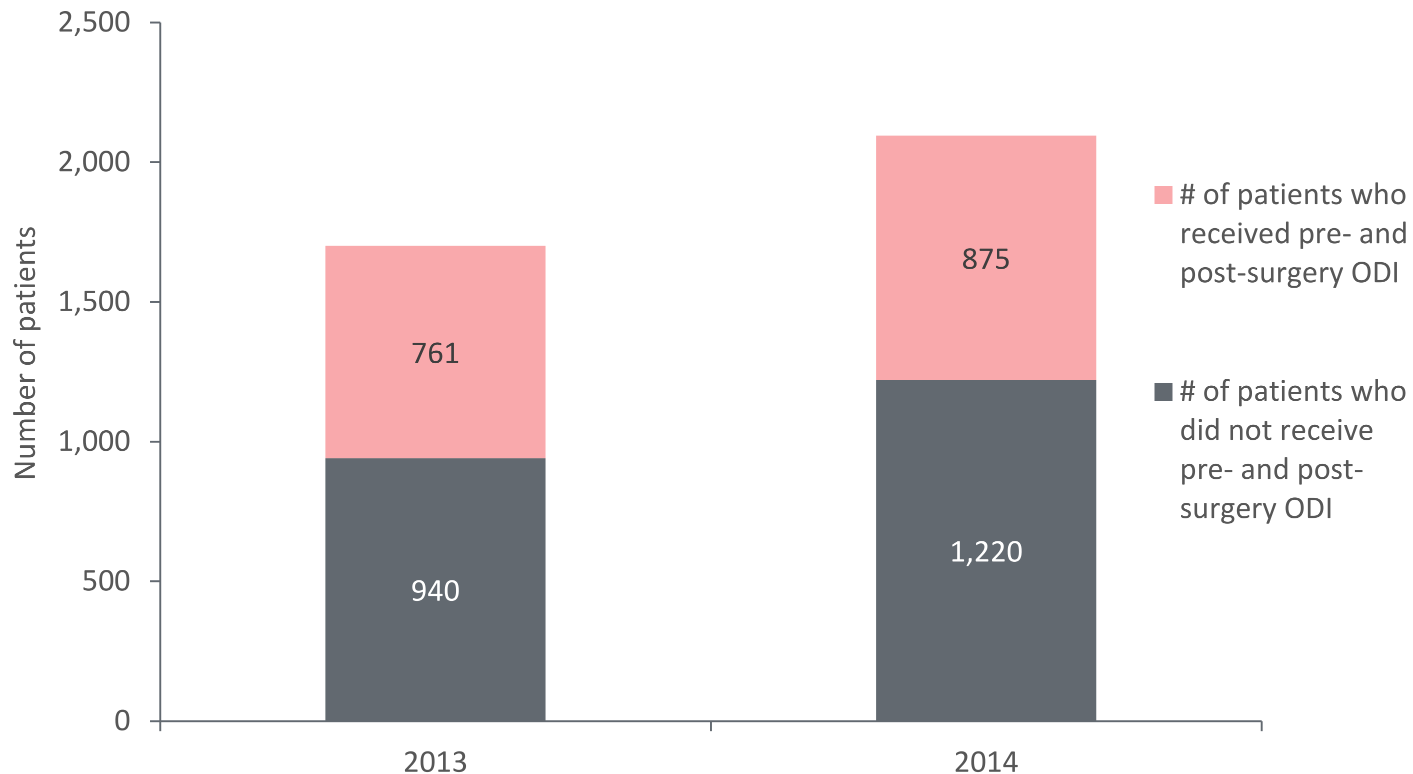
Self-pay/Uninsured patient average change is not reported because there were fewer than 10 Self-Pay/Uninsured patients with pre- and post-tests.

Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Spinal Surgery: Lumbar Fusion Functional Status Patients

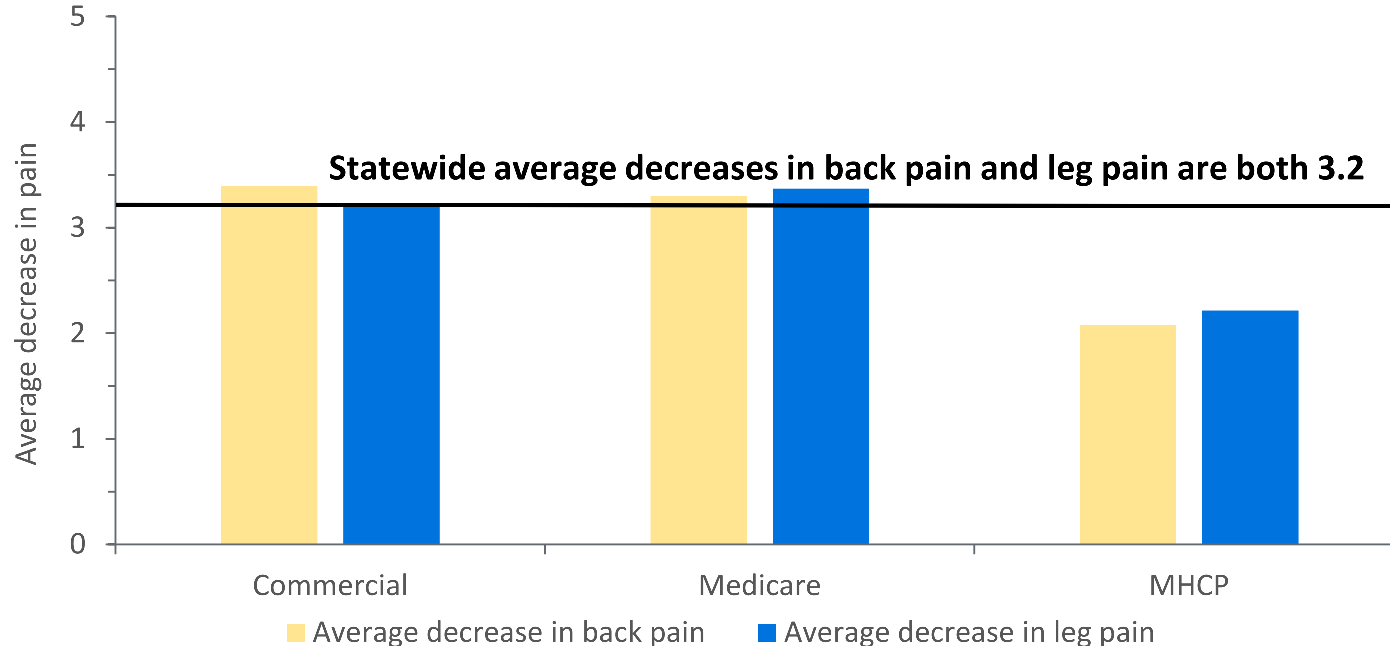
Forty-two percent of patients who had lumbar fusion surgery in 2014 received pre- and post-surgery ODI tests. This is a decrease from the 2013 rate of 45%. The majority of patients are not receiving functional status tests at the appropriate times before and after surgery.



Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Spinal Surgery: Lumbar Fusion Average Decrease in Back and Leg Pain Stratified by Insurance Type

Commercial and Medicare patients had larger decreases in back and leg pain than MHCP patients. Average decreases represent the reduction in patient leg and back pain ratings (0-10), before and after lumbar fusion surgery.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Dates of procedure: January 1 through December 31, 2014.
Self-pay/Uninsured patient average change is not reported because there were fewer than 10 Self-Pay/Uninsured patients with pre- and post-tests.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 dates of procedure.

Summary of graph

Spinal Surgery: Lumbar Discectomy Laminotomy Functional Status and Pain

The average change (preoperative to 1 year post-operative) in functional status or pain, respectively, for patients 18 years of age or older who had a lumbar discectomy laminotomy procedure.

Functional status is measured using the Oswestry Disability Index (ODI), which asks patients about 10 topics, including:

- Pain
- Ability to lift, walk, sit and stand
- Quality of life issues

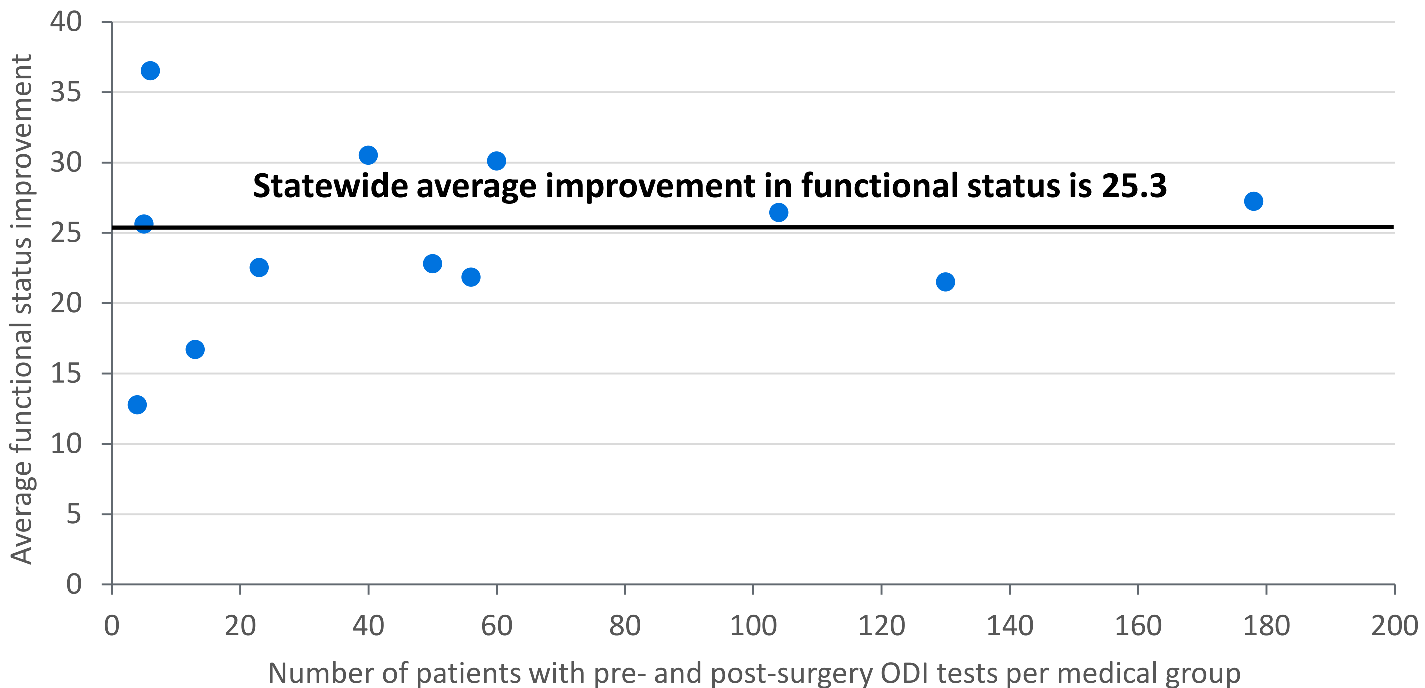
Pain is measured using the Visual Analog Scale (VAS) for leg and back pain. VAS asks patients to rate their pain on a 1-10 scale.

Patients complete tests 3 months before surgery and at 1 year (+/- 3 months) after surgery to measure change. A positive average change indicates that patients had improved functional status or less pain after surgery.

Measure steward: MN Community Measurement

Spinal Surgery: Lumbar Discectomy Laminotomy Average Functional Status Improvement

Average change in functional status after lumbar discectomy laminotomy surgery varied across medical groups. The largest average improvement in functional status was 36.5, and the smallest average improvement was 12.8. The statewide average improvement in functional status was 25.3.



In report year 2016, 18 medical groups that provided lumbar discectomy laminotomy surgeries in 2014 reported data to MDH; and of these, 12 medical groups provided patients with pre- and post-surgery ODI tests.

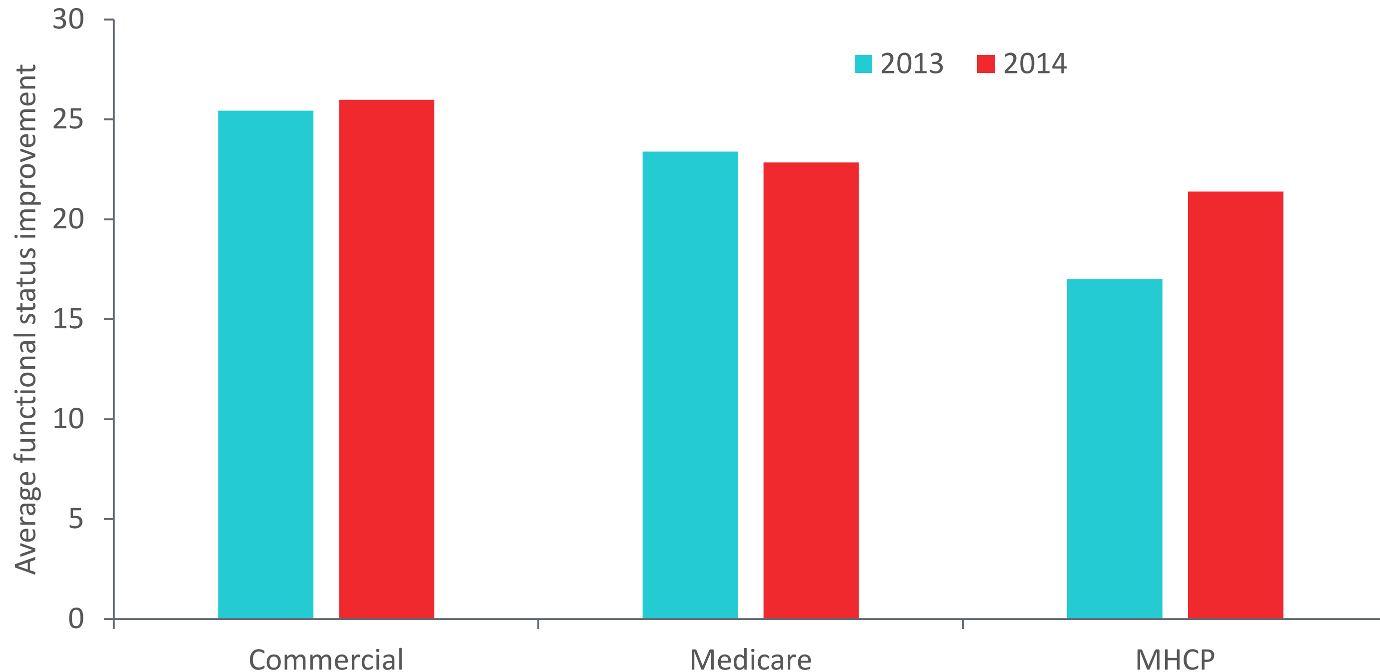
Two eligible medical groups—Twin Cities Orthopedics and St. Cloud Orthopedics—did not report procedures or results to MDH; therefore, measure results may not be representative of the full lumbar discectomy/laminotomy patient population.

Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 dates of procedure.

Summary of graph

Spinal Surgery: Lumbar Discectomy Laminotomy Average Functional Status Improvement Stratified by Insurance Type

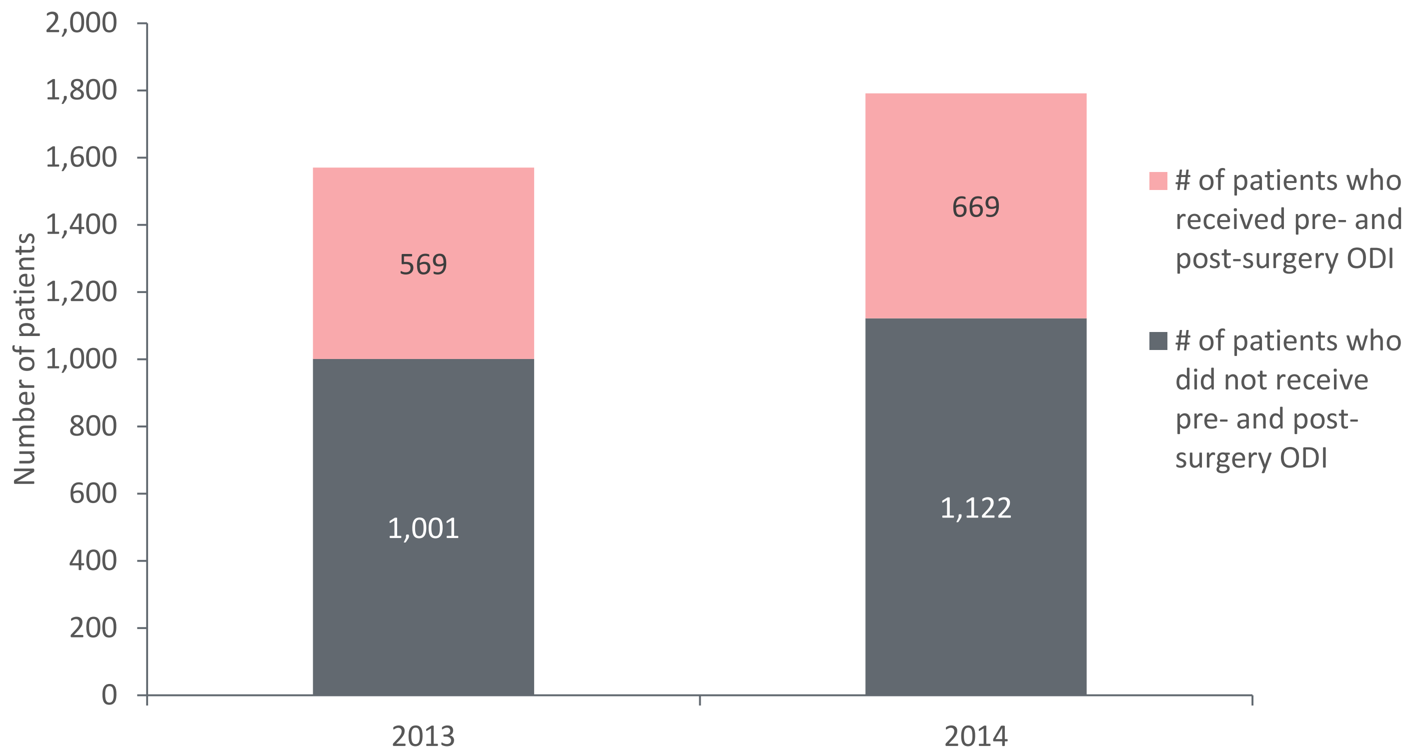
Patients with commercial insurance had the most improvement in functional status after surgery in both 2013 and 2014.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Dates of procedure: January 1 through December 31, 2013 and 2014; 2013 was the first year of data collection for this measure.
Self-pay/Uninsured patient average change is not reported because there were fewer than 10 Self-Pay/Uninsured patients with pre- and post-tests.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Spinal Surgery: Lumbar Discectomy Laminotomy Functional Status Patients

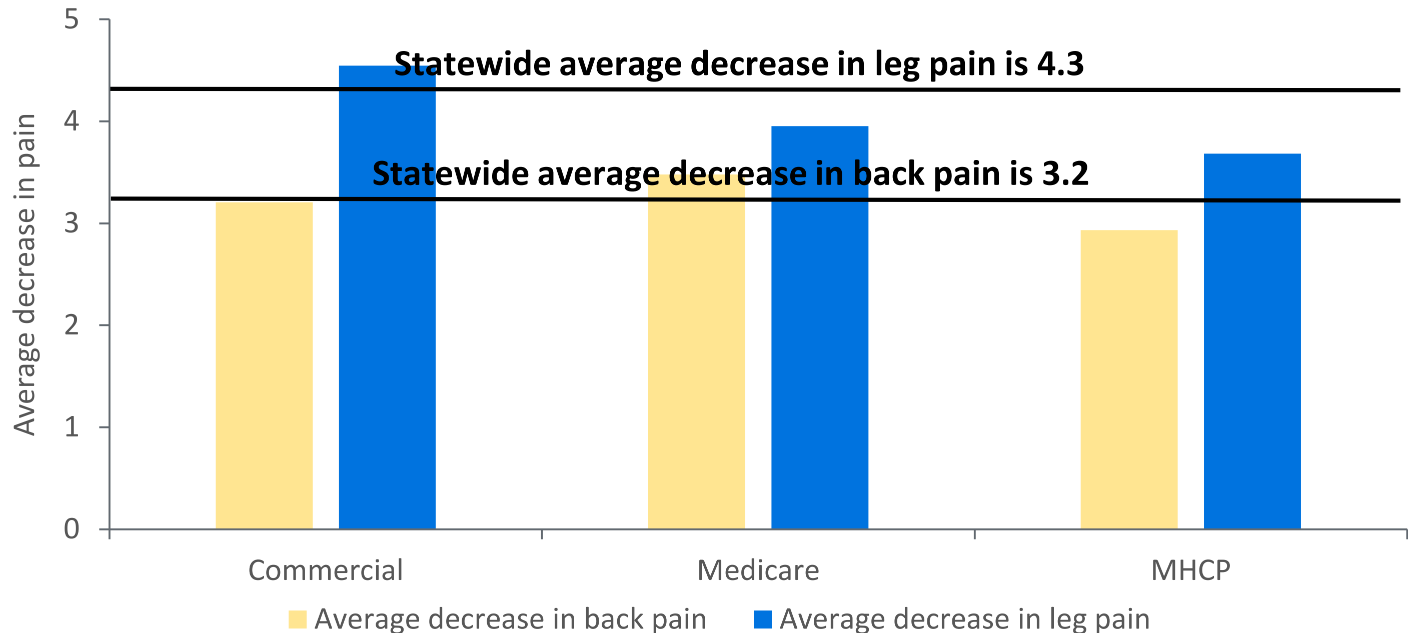
Thirty-seven percent of patients who had lumbar discectomy laminotomy surgery in 2014 received pre- and post-surgery ODI tests. The 2013 rate was 36%. The majority of patients are not receiving functional status tests at the appropriate times before and after surgery.



Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Spinal Surgery: Lumbar Discectomy Laminotomy Average Decrease in Back and Leg Pain Stratified by Insurance Type

Lumbar discectomy laminotomy patients had larger decreases in leg pain than in back pain after surgery. Commercial patients had the largest average decrease in leg pain. Average decreases represent the reduction in patient leg and back pain ratings (0-10), before and after lumbar fusion surgery.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.
Dates of procedure: January 1 through December 31, 2014.
Self-pay/Uninsured patient average change is not reported because there were fewer than 10 Self-Pay/Uninsured patients with pre- and post-tests.
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 dates of procedure.
Summary of graph

Total Knee Replacement Functional Status

The average change (preoperative to 1 year post-operative) in functional status for patients 18 years of age or older who had primary total knee replacement surgery.

Functional status is measured using the Oxford Knee Score (OKS), which asks patients about 12 topics, including:

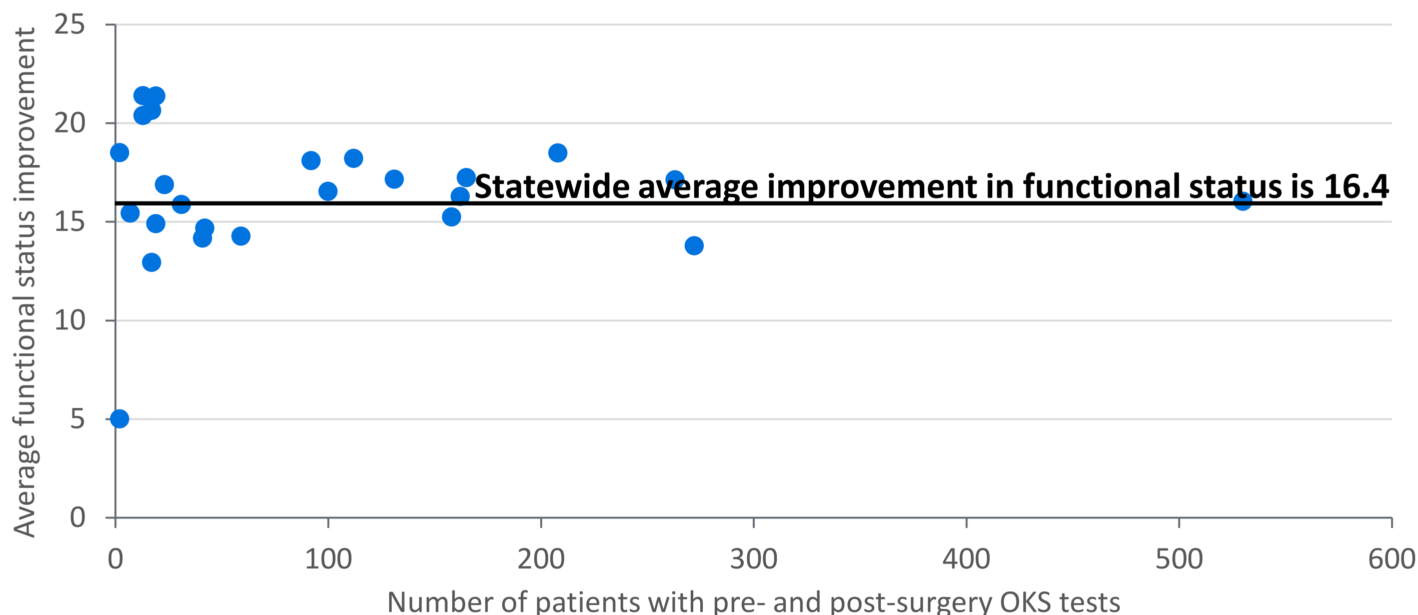
- Pain
- Ability to kneel, walk, and sit
- Ability to complete everyday tasks

Patients complete tests 3 months before surgery and at 1 year (+/- 3 months) after surgery to measure change. A positive average OKS change indicates that patients had improved functional status after surgery.

Measure steward: MN Community Measurement
National Quality Forum #2653

Total Knee Replacement
Average Functional Status Improvement

Average change in functional status after total knee replacement varied across medical groups. The largest average improvement in functional status was 21.4, and the smallest average improvement was 5. The statewide average improvement in functional status was 16.4. This indicates that on average, patients had improved functional status after surgery.



In report year 2016, 34 medical groups that provided primary total knee replacement surgeries in 2014 reported data to MDH; and of these, 25 medical groups provided patients with pre- and post-surgery OKS tests.

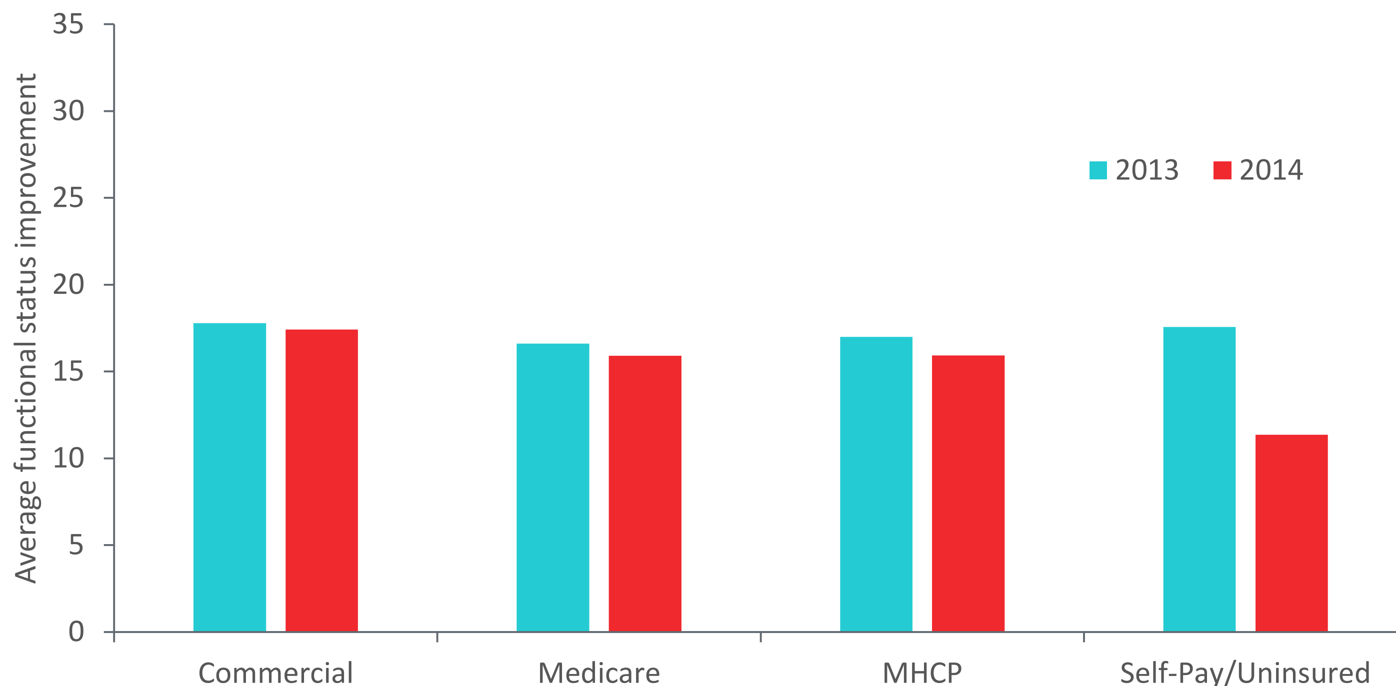
Two eligible medical groups—Twin Cities Orthopedics and St. Cloud Orthopedics—did not report procedures or results to MDH; therefore, measure results may not be representative of the full primary total knee replacement patient population.

Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 dates of procedure.

Summary of graph

Total Knee Replacement Average Functional Status Improvement Stratified by Insurance Type

Patients with commercial insurance had the most improvement in functional status after surgery in 2014, followed closely by Medicare and MHCP patients.



MHCP is Minnesota Health Care Programs, which includes: Medical Assistance, MinnesotaCare, Minnesota Family Planning Program, home and community-based waiver programs, and Medicare Savings Programs.

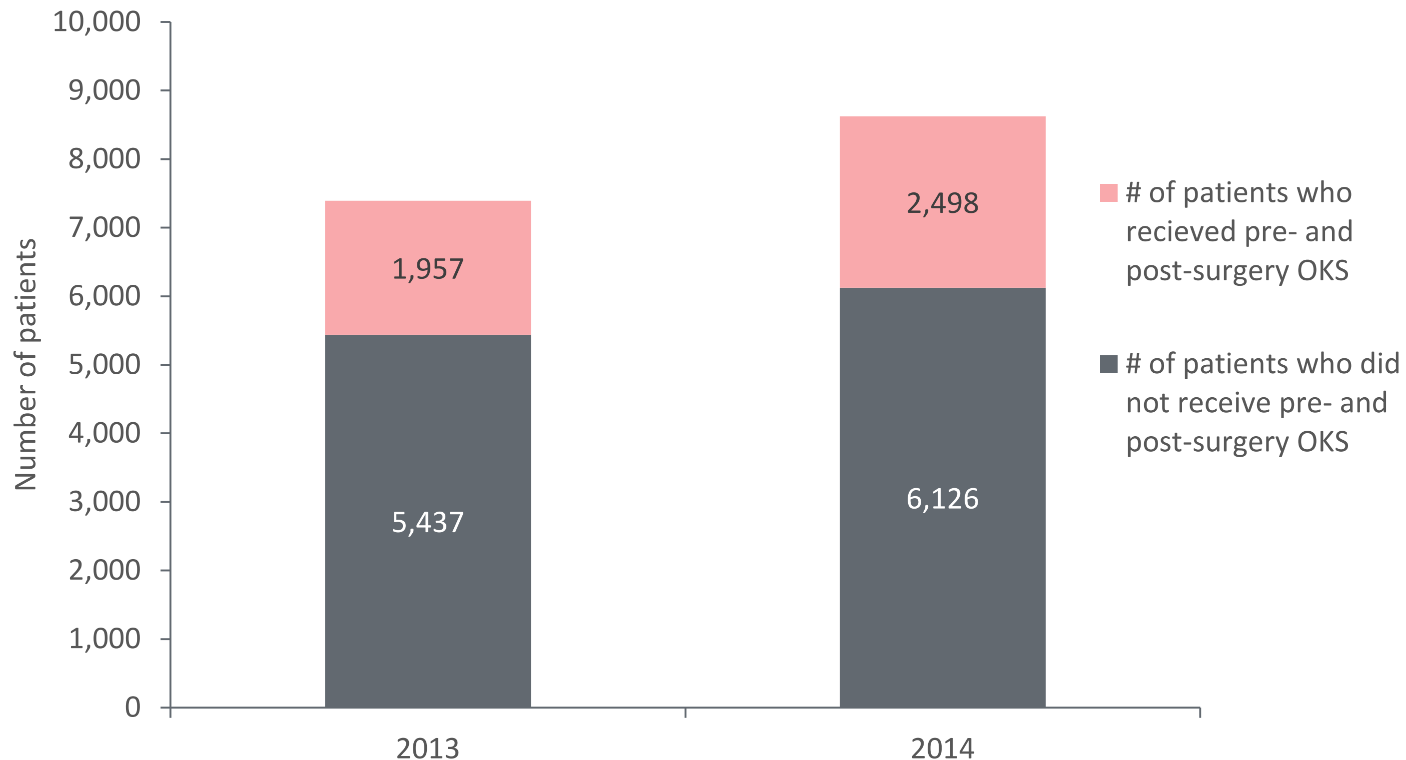
Dates of procedure: January 1 through December 31, 2013 and 2014.

Source: MDH Health Economics Program analysis of Quality Reporting System data.

Summary of graph

Total Knee Replacement Functional Status Patients

Twenty-nine percent of patients who had primary total knee replacement surgery in 2014 received pre- and post-surgery OKS tests. This is a slight increase from the 2013 rate of 27%. The majority of patients are not receiving functional status tests at the appropriate times before and after surgery.



Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Clinic Patient Experience of Care

- **Clinics administer the Clinician & Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) every two years to measure patients' perceptions of their clinic experience.**
- **The CG-CAHPS 12-month Survey covers the following domains:**
  - Access to care
  - Provider communication
  - Office staff
  - Provider rating

Note: Clinics used the CG-CAHPS 6-Month Survey in 2016; this data will be available in 2017.
Measure steward: Agency for Healthcare Research and Quality (AHRQ).
National Quality Forum #0005

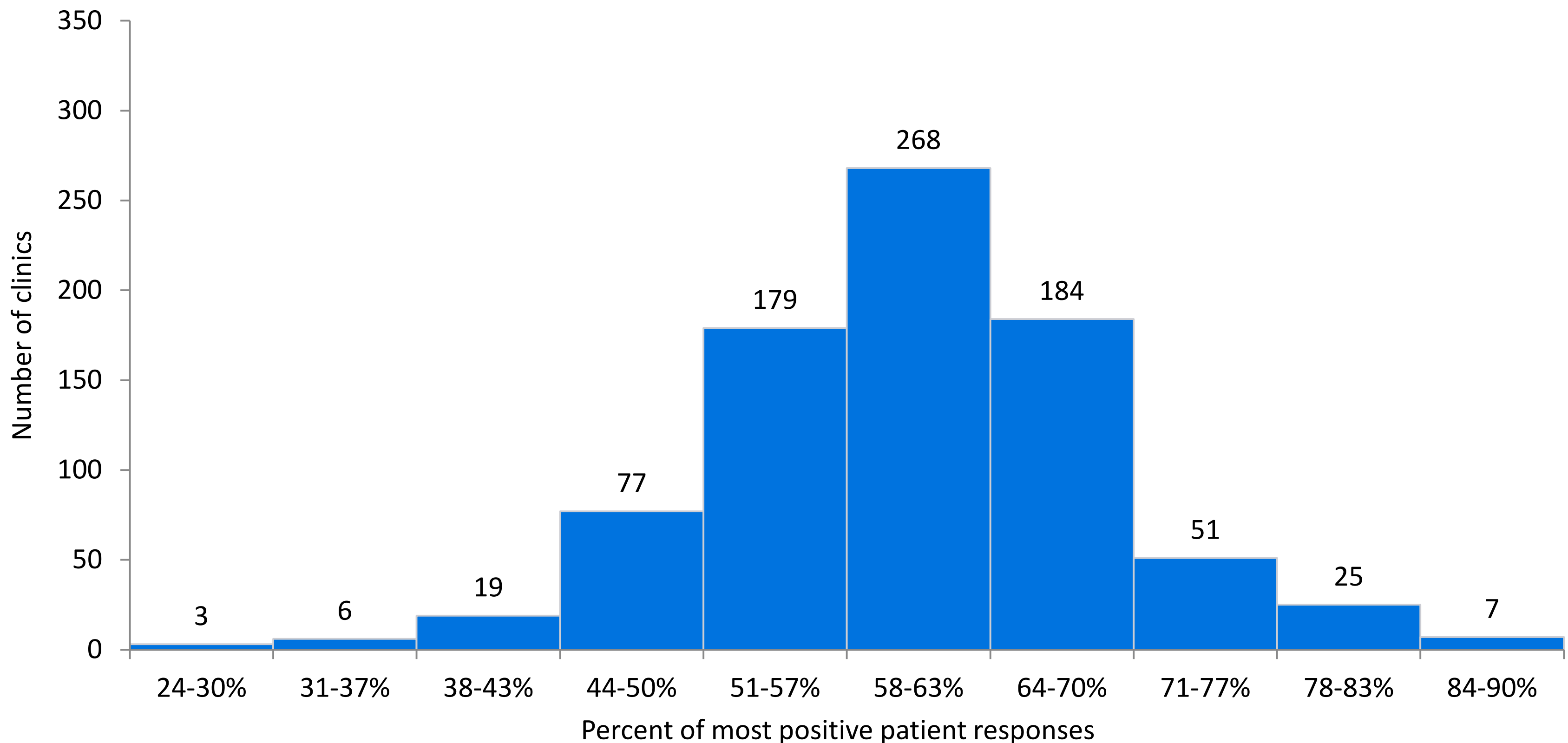
Clinic Patient Experience of Care

Domain	Description
Access to care	The survey asked patients how often they received: 1) appointments for care as soon as needed and 2) timely answers to questions when they called the office
Provider communication	The survey asked patients if their doctors explained things clearly, listened carefully, showed respect, provided easy to understand instructions, knew their medical history, and spent enough time with the patient.
Office staff	The survey asked patients if office staff were helpful and treated them with courtesy and respect.
Provider rating	The survey asked patients to rate their doctors on a scale of 0 to 10, with 0 being the worst and 10 being the best.

Clinic Patient Experience of Care

Percent of Patients Who Chose the Most Positive Response to Access to Care Questions, by Number of Clinics

For the majority of clinics, 51% to 70% of patients selected the highest possible positive response when asked about getting timely appointments, care, and information.



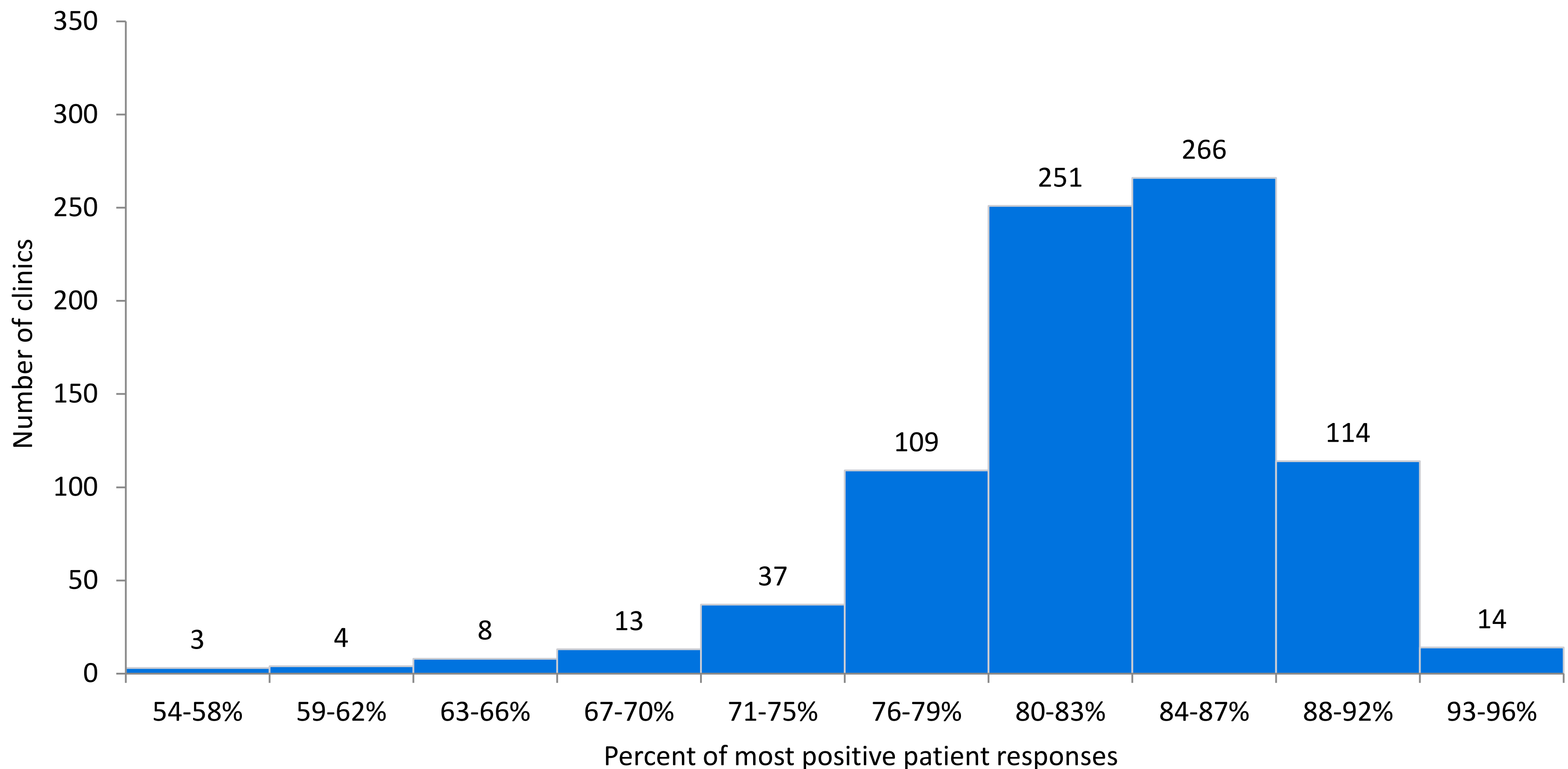
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 service dates.

Summary of graph

Clinic Patient Experience of Care

Percent of Patients Who Chose the Most Positive Response to Provider Communication Questions, by Number of Clinics

For the majority of clinics, 76% to 92% of patients selected the highest possible positive response when asked how well providers communicate with patients.



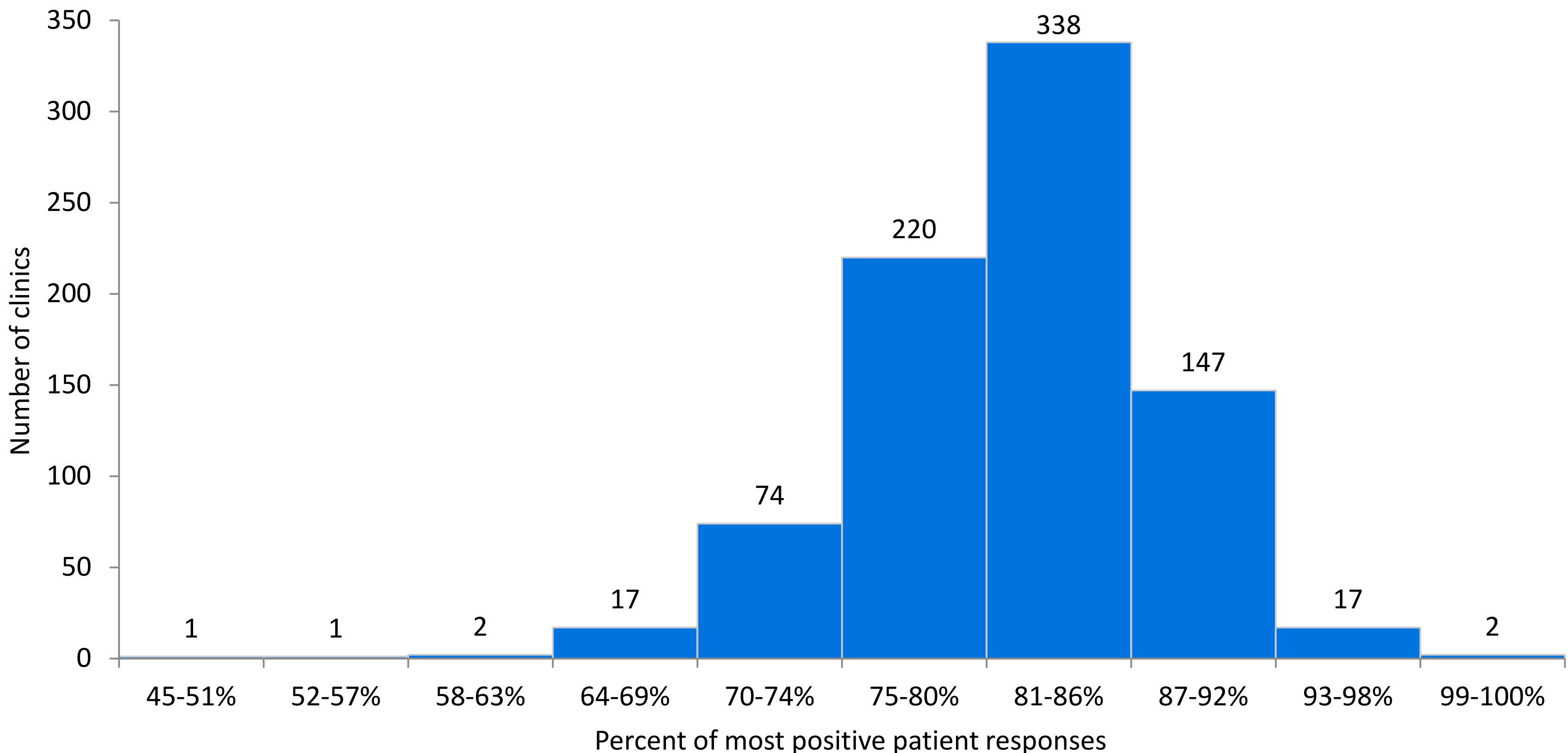
Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 service dates.

Summary of graph

Clinic Patient Experience of Care

Percent of Patients Who Chose the Most Positive Response to Office Staff Questions, by Number of Clinics

For the majority of clinics, 75% to 92% of patients selected the highest possible positive response when asked about how often office staff were helpful, courteous, and respectful.

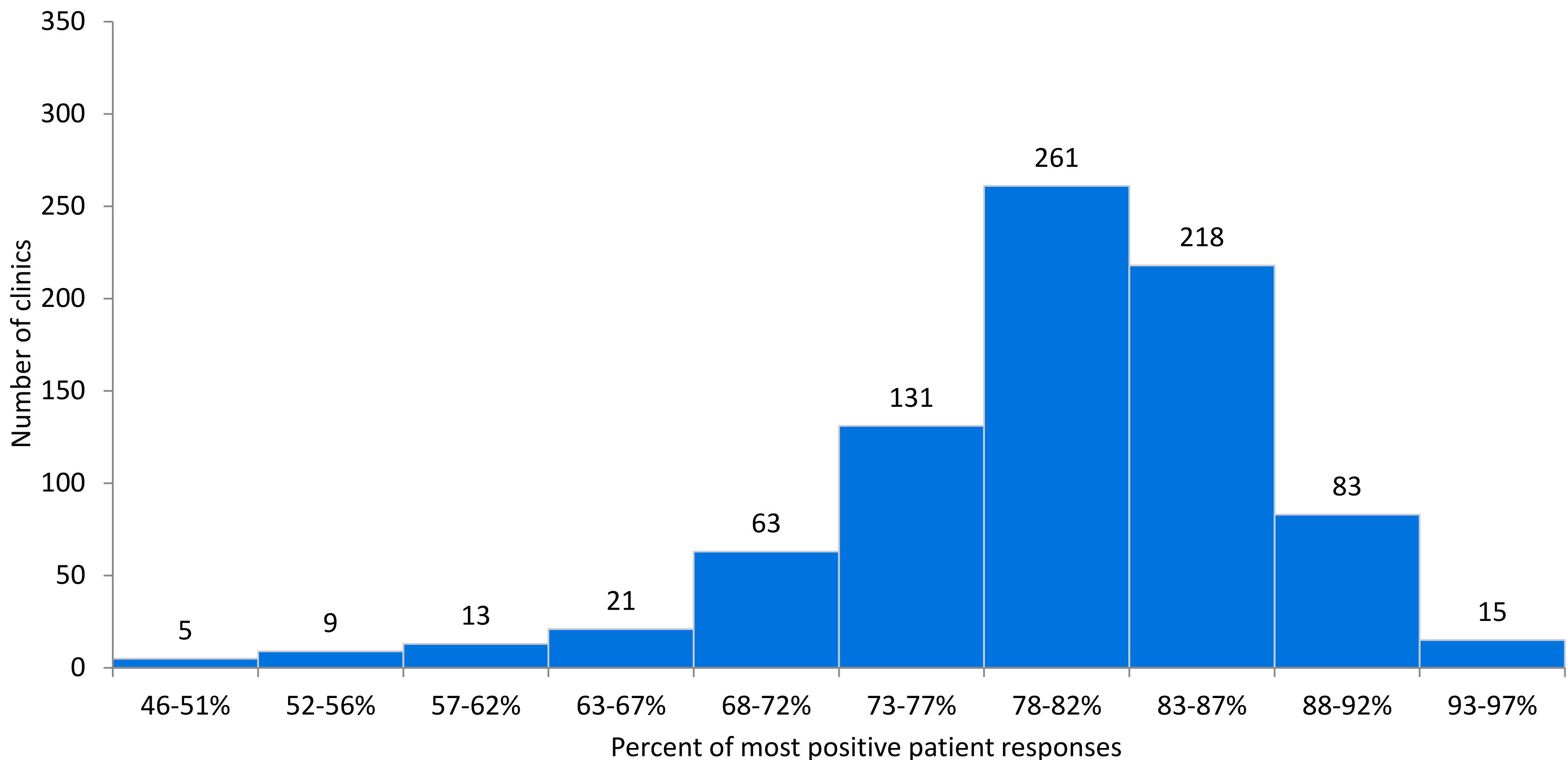


Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 service dates.
Summary of graph

Clinic Patient Experience of Care

Percent of Patients Who Chose the Most Positive Response to Provider Rating Question, by Number of Clinics

For the majority of clinics, 73% to 87% of patients selected the highest possible positive response when asked to rate their doctor.



Source: MDH Health Economics Program analysis of Quality Reporting System data from 2014 service dates.

Summary of graph

Hospital Quality Measures

Hospital Value-Based Purchasing Total Performance Score

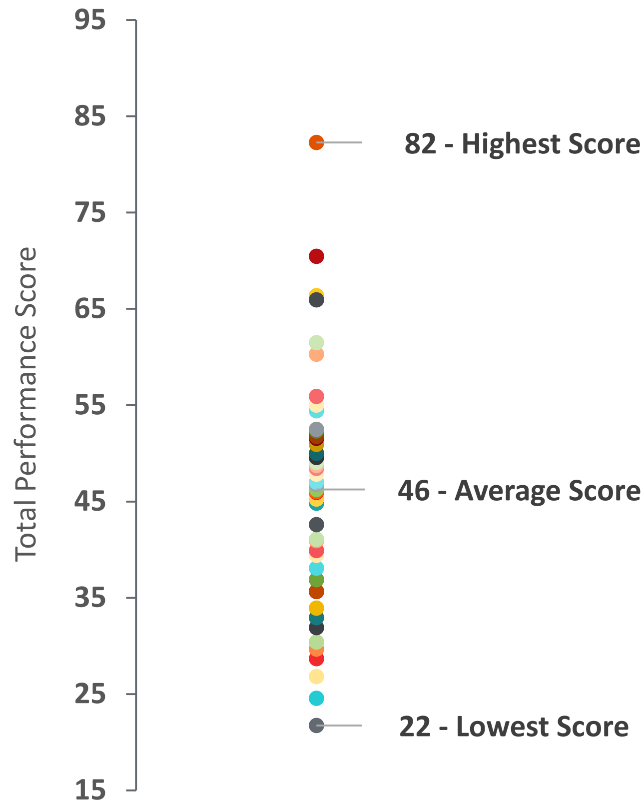
The Hospital Value-Based Purchasing (VBP) Program is a Centers for Medicare & Medicaid Services incentive program designed to tie payment to the quality of care provided by a hospital.

The VBP Total Performance Score is calculated based on each prospective payment system hospital's performance and improvement on a number of measures in the following domains:

- Clinical care (process and outcome measures)
- Patient- and caregiver centered experience of care/care coordination
- Patient safety
- Efficiency and cost reduction

Hospital Value-Based Purchasing Total Performance Score

Total Performance Scores ranged from 22 to 82 for 44 Minnesota hospitals; 100 is the best possible score.



Service year varies by component: October 1, 2013 – June 30, 2015 and January 1 through December 31, 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

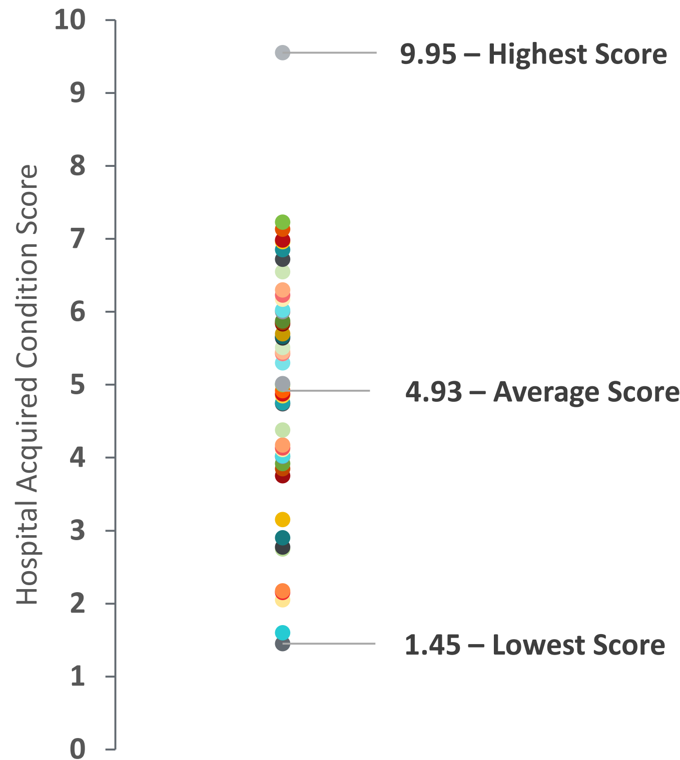
Hospital Acquired Condition Reduction Program Score

The Hospital Acquired Condition Reduction Program is a Centers for Medicare & Medicaid Services incentive program designed to tie payment to hospital acquired conditions: conditions that patients acquire while receiving treatment.

The Hospital Acquired Condition Reduction Program Score is calculated based on how often hospital-acquired infections and other conditions, including ulcers and falls, occur at each prospective payment system hospital.

Hospital Acquired Condition Reduction Program Score

Hospital Acquired Condition Scores ranged from 9.95 to 1.45 for 50 Minnesota hospitals. Higher scores indicate a higher rate of hospital acquired conditions.



Service year varies by domain: July 1, 2013 through June 30, 2015 and January 1, 2014 through December 31, 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Hospital Readmissions Reduction Program
Excess Readmission Score

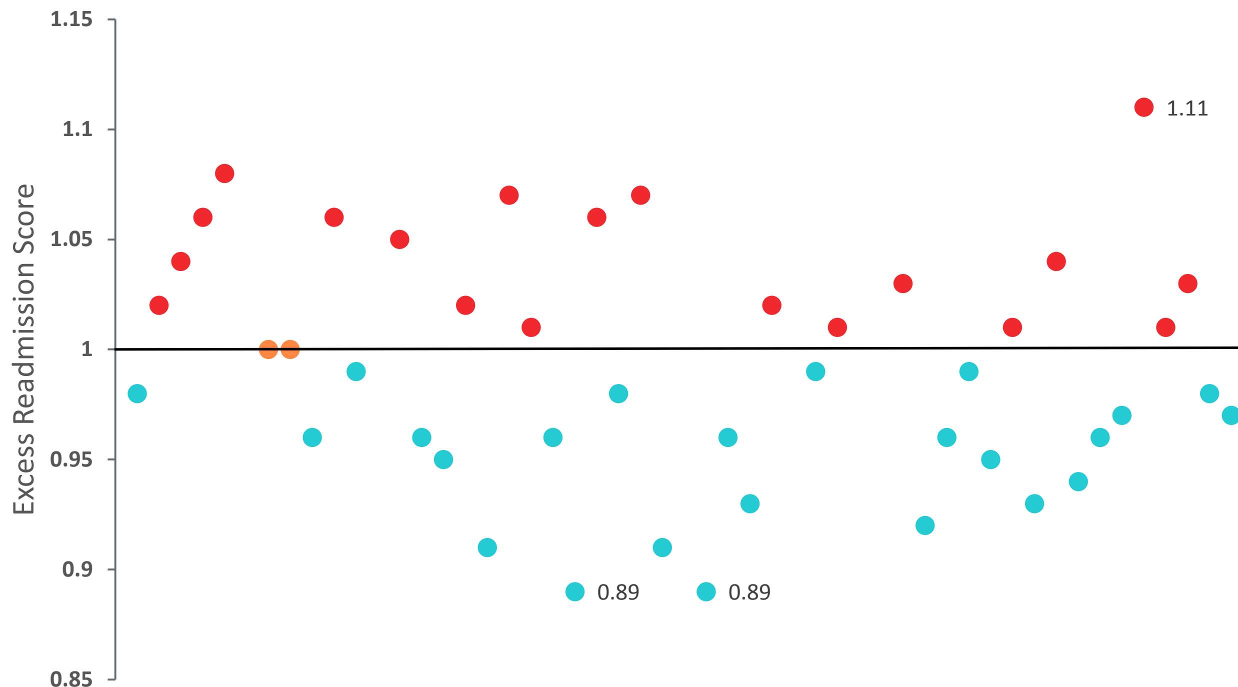
The Readmission Reduction Program Excess Readmission Score is based on each prospective payment system hospital's 30-day readmission rate for the following conditions:

- Acute myocardial infarction (AMI)
- Heart failure
- Pneumonia
- Chronic obstructive pulmonary disease (COPD)
- Total hip arthroplasty
- Total knee arthroplasty
- Coronary artery bypass graft

Hospitals with Readmission Reduction Composite rates above 1 had more readmissions than expected; hospitals with rates below 1 had fewer readmissions than expected

Hospital Readmissions Reduction Program Excess Readmission Score

The highest Excess Readmission Score was 1.11, and the lowest was 0.89. Twenty-five out of 44 Minnesota hospitals (57%) had rates of 1.0 or lower, indicating that they had fewer readmissions than expected or the expected number of readmissions.



Service years: July 1, 2011 through June 30, 2014.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Hospital Emergency Department Transfer Communication Composite

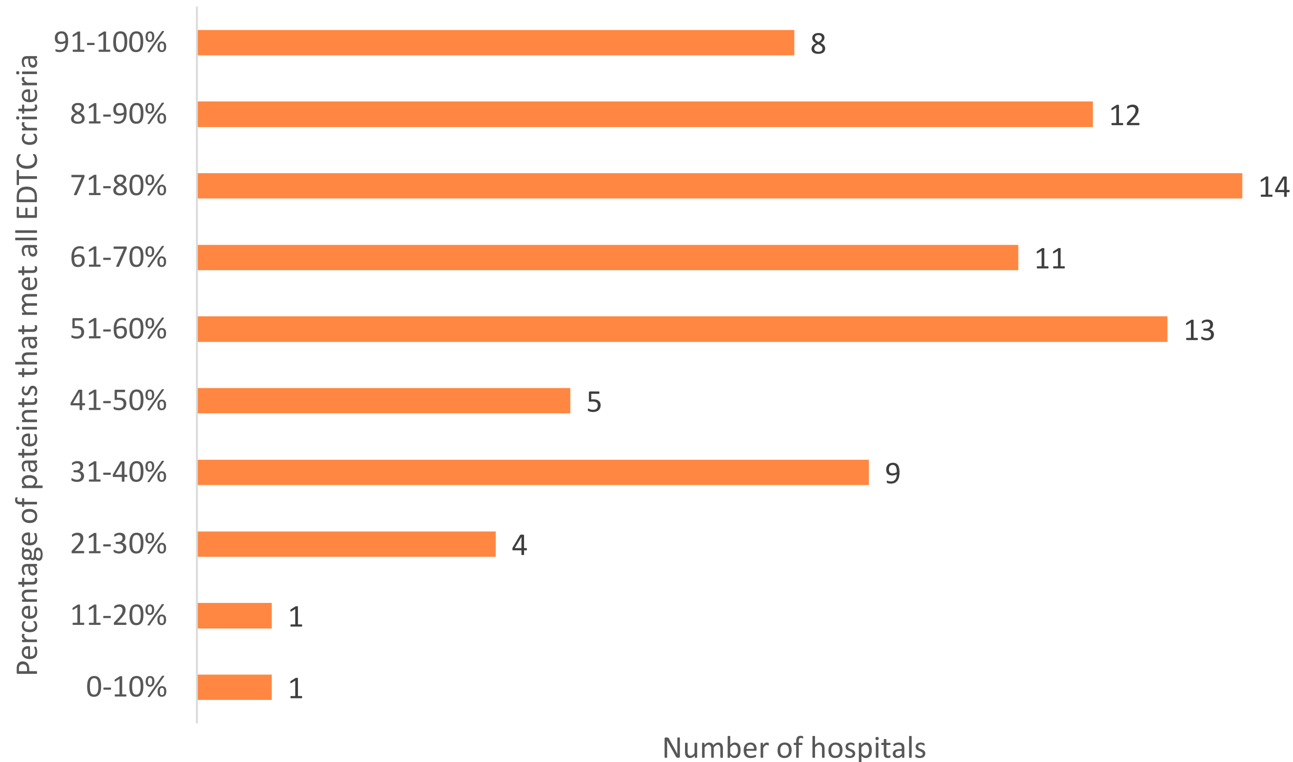
The Emergency Department Transfer Communication (EDTC) measure tracks how well hospitals communicate patient information when they transfer a patient to another health care facility.

The EDTC composite measure represents the percentage of each hospitals' transferred patients whose required information was quickly communicated to the receiving facility. This required information includes:

- Patient identity
- Vital signs
- Information about medications, procedures and tests

Hospital Emergency Department Transfer Communication Composite

Sixty percent or more of patients met all EDTC measure criteria at 45 of 78 critical access hospitals.



Service year: October 1, 2014 through September 30, 2015.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Hospital Patient Experience of Care

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) is a survey that measures patients' perceptions of their hospital experience.

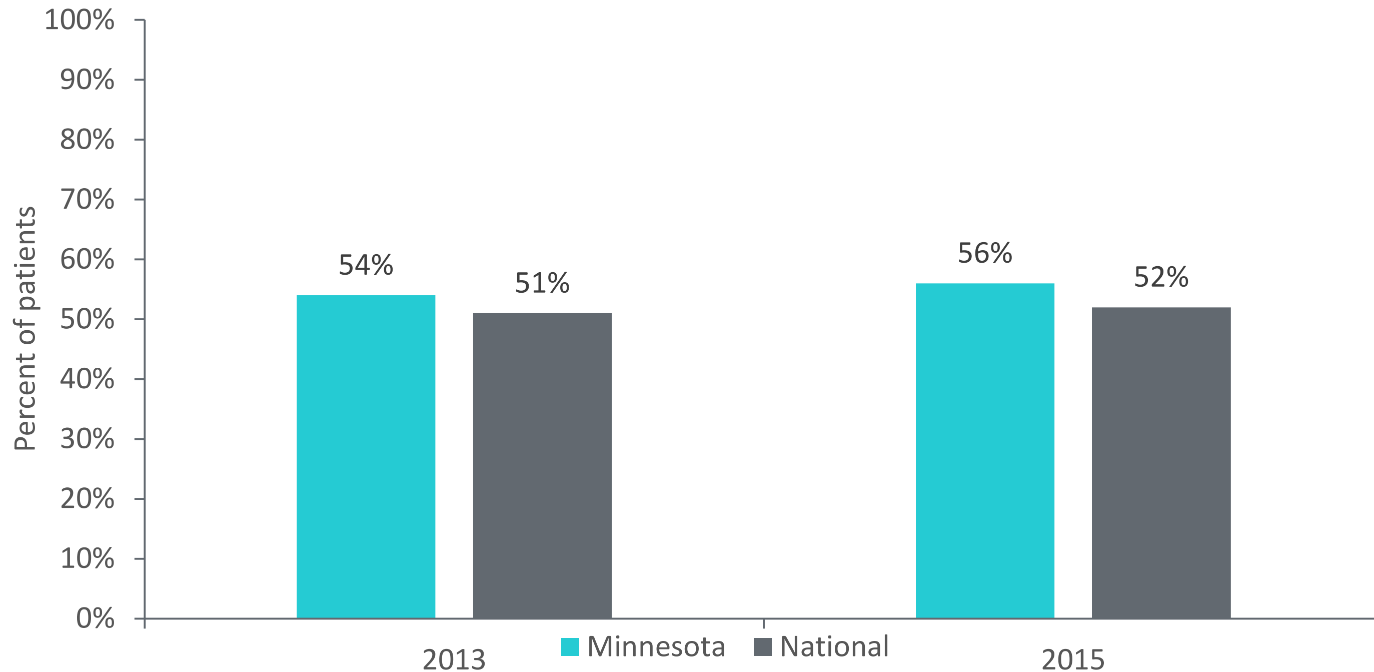
The HCAHPS survey asks discharged patients 27 questions about important aspects of their recent hospital stay, including:

- Communication with nurses and doctors
- Communication about medicines
- Overall rating of the hospital

Hospital Patient Experience of Care

Percent of Patients Who "Strongly Agreed" They Understood Their Care When Leaving the Hospital

Minnesota's rate was slightly higher than the national average in both 2013 and 2015.

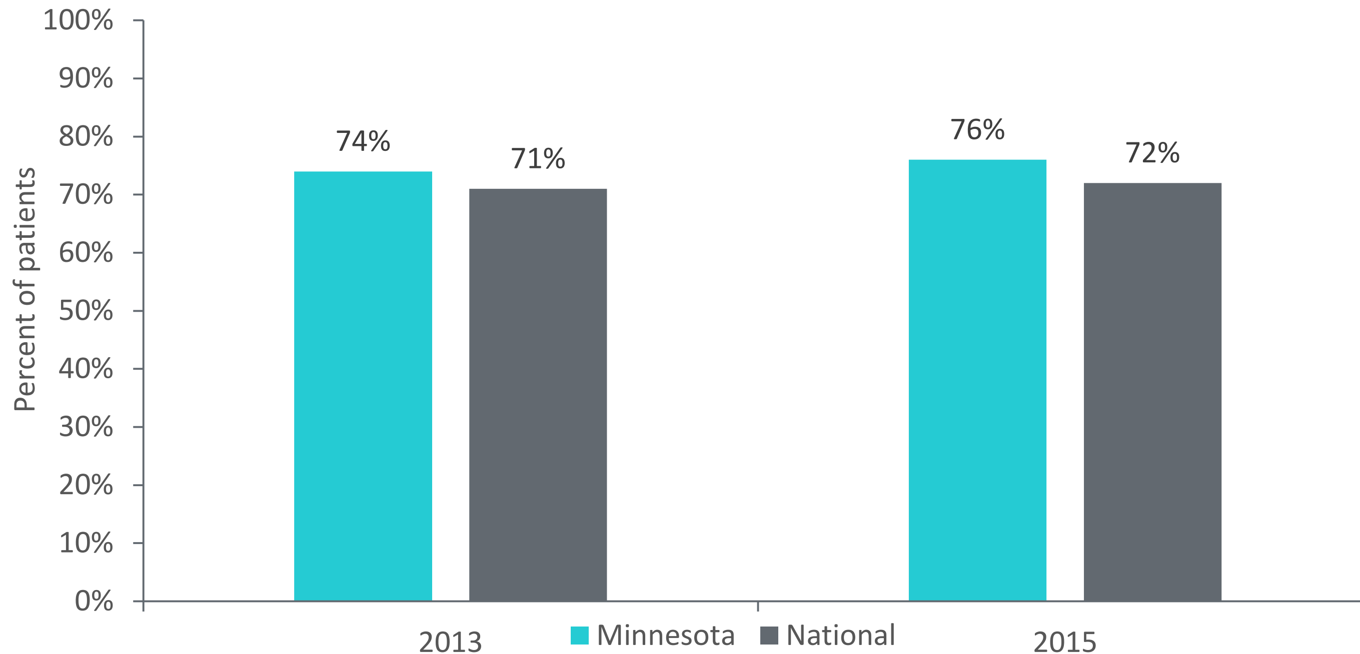


Service years: January 1 through December 31, 2013 and April 1, 2015 through March 31, 2016.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Hospital Patient Experience of Care

Percent of Patients Who Gave their Hospital a Rating of 9 or 10

Minnesota's rate was slightly higher than the national average in both 2013 and 2015.



Service years: January 1 through December 31, 2013 and April 1, 2015 through March 31, 2016.
Source: MDH Health Economics Program analysis of Quality Reporting System data.
Summary of graph

Appendix:
Quality Reporting System Measures

2016 Reporting Year
Clinic Quality Measures

Measure	Steward
Data Source: Medical Record	
Optimal Diabetes Care	MNCM
Optimal Vascular Care	MNCM
Depression Remission at Six Months	MNCM
Optimal Asthma Control – Adult and Child	MNCM
Asthma Education and Self-Management - Adult and Child	MNCM
Colorectal Cancer Screening	MNCM
Cesarean Section Rate	MNCM
Total Knee Replacement Outcome Measures	MNCM
Spinal Surgery: Lumbar Spinal Fusion Outcome Measures	MNCM
Spinal Surgery: Discectomy/Laminotomy Outcome Measures	MNCM
Pediatric Preventive Care: Pediatric Overweight Counseling	MNCM
Pediatric Preventive Care: Adolescent Mental Health and/or Depression Screening	MNCM
Data Source: Health Care Claims	
Healthcare Effectiveness Data and Information Set (HEDIS) measures	NCQA
Data Source: Clinic Survey	
Health Information Technology Survey	MNCM/MDH
Data Source: Patient Survey	
Patient Experience of Care Survey: Consumer Assessment of Healthcare Providers and Systems Clinician & Group 3.0 Survey – Adult	AHRQ

NCQA is the National Committee on Quality Assurance, AHRQ is the Agency of Healthcare Research and Quality
Medical record data is obtained from electronic health records or paper records.
A Measure Steward is an organization that owns and is responsible for maintaining the measure. Measure stewards are often the same as measure developers, but not always.
Source: Quality Reporting System, 2016.

2016 Reporting Year Hospital Quality Measures

Measure	Steward	Hospital Type
Data Source: Medical Record		
Influenza Immunization: Influenza Immunization (IMM-2)	CMS	CAH
Emergency Department Measures Median Time from ED Arrival to ED Departure for Admitted ED Patients – Overall Rate (ED-1a) Admit Decision Time to ED Departure Time for Admitted Patients - Overall Rate (ED-2a) Median Time from ED Arrival to ED Departure for Discharged ED Patients (OP-18) ED Median Time to Pain Management for Long Bone Fracture (OP-21) ED Patient Left without Being Seen (OP-22)	CMS	CAH
Elective Delivery (PC-01)	The Joint Commission	CAH
Outpatient Acute Myocardial Infarction and Chest Pain Fibrinolytic Therapy Received within 30 Minutes (OP-2) Median Time to Transfer to Another Facility for Acute Coronary Intervention – Overall Rate (OP-3a) Median Time to ECG (OP-5) Median Time to Fibrinolysis (OP-1)	CMS	CAH

CMS is Centers for Medicare and Medicaid Services; CAH is Critical Access Hospitals
Medical record data is obtained from electronic health records or paper records.
A Measure Steward is an organization that owns and is responsible for maintaining the measure. Measure stewards are often the same as measure developers, but not always.
Source: Quality Reporting System, 2016.

Hospital Quality Measures (Continued)

Measure	Steward	Hospital Type
Data Source: Medical Record		
Chronic Obstructive Pulmonary Disease 30-Day Readmission Rate (READM-30-COPD)	CMS	CAH
Door to Diagnostic Evaluation by a Qualified Medical Professional (OP-20)	CMS	CAH
Head CT or MRI Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Patients who Received Head CT or MRI Scan Interpretation within 45 Minutes of Arrival (OP-23)	CMS	CAH
Catheter Associated Urinary Tract Infection (CAUTI)	CDC	CAH
Emergency Department Stroke Registry Indicators Door-to-Imaging Initiated Time	Minnesota Stroke Registry Program	PPS and CAH
Time to Intravenous Thrombolytic Therapy	American Heart Association/ American Stroke Association	PPS and CAH
Emergency Department Transfer Communication Composite	CMS	CAH
Hospital Value-Based Purchasing Total Performance Score	CMS	PPS
Hospital Readmissions Reduction Program Excess Readmission Score	CMS	PPS
Hospital Acquired Condition Reduction Program Score	CMS	PPS

PPS stands for Prospective Payment System hospitals, CAH stands for Critical Access Hospital
Source: Quality Reporting System, 2016.

Hospital Quality Measures (Continued)

Measure	Steward	Hospital Type
Data Source: Health Care Claims		
Heart Failure 30-Day Readmission Rate (READM-30-HF)	CMS	CAH
Pneumonia 30-Day Readmission Rate (READM-30-PN)	CMS	CAH
Data Source: Hospital Survey		
Health Information Technology Survey	American Hospital Association/MDH	PPS and CAH
Data Source: Patient Survey		
Patient Experience of Care: Hospital Consumer Assessment of Healthcare Providers and Systems	CMS	PPS and CAH
Data Source: Provider Survey		
Safe Surgery Checklist Use (OP-25)	CMS	CAH
Data Source: Inpatient Administrative Data		
Mortality for Selected Conditions (IQI 91)	AHRQ	PPS and CAH
Death Among Surgical Inpatients with Serious Treatable Complications (PSI 4)	AHRQ	PPS and CAH
Patient Safety and Adverse Events Composite (PSI 90)	AHRQ	PPS and CAH
Pediatric Patient Safety for Selected Indicators Composite (PDI 19)	AHRQ	PPS and CAH
Data Source: Management & Personnel Data		
Influenza Vaccination Coverage Among Healthcare Personnel (OP-27)	CDC	CAH

Source: Quality Reporting System, 2016.

Resources

Additional Information from the Health Economics Program

Health Economics Program

www.health.state.mn.us/divs/hpsc/hep

Publications

www.health.state.mn.us/divs/hpsc/hep

Health Care Markets Chartbook

www.health.state.mn.us/divs/hpsc/hep/chartbook

Statewide Quality Reporting and Measurement System

www.health.state.mn.us/healthreform/measurement

Quality Measurement Resources

MN Community Measurement and HealthScores

- mncm.org
- www.mnhealthscores.org

Stratis Health

- www.stratishealth.org

Minnesota Hospital Association

- www.mnhospitals.org
- www.mnhospitalquality.org/#/consumer

Hospital Compare

- www.medicare.gov/hospitalcompare

National Quality Forum

- www.qualityforum.org
- www.qualityforum.org/QPS/QPSTool.aspx

Agency for Healthcare Research and Quality

- www.ahrq.gov