

## Optimal Asthma Control in 2020 *Adults & Children*

### OVERVIEW

2020 was a year like no other, with the COVID-19 pandemic having dramatic impacts on most aspects of life including how patients sought care and how health care providers delivered it.

This issue brief presents statewide data for 2020 for the Optimal Asthma Control measures, with comparison to 2019 as context for understanding the disruptions experienced in 2020. In many respects, however, 2020 should be considered a new baseline from which recovery should be measured. Although MNCM is also publishing 2020 quality measures for individual medical groups\*, we urge caution in using this data or changes in rates for specific medical groups between 2019 and 2020 to draw general conclusions about quality of care. Organizations faced different types of challenges, that are likely reflected in the data in ways that are not typical of overall quality of care. However, MNCM stakeholders strongly supported continuing to make the data publicly transparent.

### KEY FINDINGS

- Statewide, the Optimal Asthma Control measure decreased from 53.4% in 2019 to 46.6% in 2020 for adults and from 58.3% in 2019 to 56.0% in 2020 for children.
- In general, all demographic categories showed a decline in patient volume between 2019 and 2020 in both the adult and child populations.
- Groups who experienced a significant worsening in their existing disparities for optimal asthma control include patients with the following demographic characteristics: adult males, Indigenous/Native children, patients in the 12-17 age group and both adults and children who are uninsured. Additionally, disparities worsened in some regions more than others for both populations.

### OPTIMAL ASTHMA CONTROL

The percentage of children (5-17 years of age) and adults (18-50 years of age) with asthma who had at least one eligible office visit with an eligible provider between 1/1/2020 and 12/31/2020 and who met both of the following criteria:



#### Well-controlled

As defined by the most recent asthma control tool\* used during the measurement period



#### Low risk of exacerbation

As defined as having less than two emergency department visits and/or hospitalizations due to asthma in the last 12 months

*\*Acceptable screening tools include Asthma Control Test (ACT)<sup>TM</sup> for patients 12 years and older; Childhood Asthma Control Test (C-ACT)<sup>®</sup> for patients 11 years and younger; Asthma Control Questionnaire (ACQ)<sup>®</sup> for patients 17 years and older; Asthma Therapy Assessment Questionnaire (ATAQ)<sup>®</sup> – Pediatric for patients 5 to 17 years; ATAQ<sup>®</sup> – Adults for patients 18 years and older*

\*Quality measures for individual clinic locations will not be public for 2020



### RATE CHANGES – ADULTS

#### Sex, Age Group, Insurance Type, Neighborhood Socioeconomic (SES) Variables

Comparison of 2020 to 2019

| Category                          | 2019 Rate       | 2020 Rate |
|-----------------------------------|-----------------|-----------|
| <b>STATEWIDE AVERAGE</b>          | 53.4%           | 46.6%     |
| <b>SEX</b>                        | Female          | 47.2%     |
|                                   | Male            | 45.5% *   |
| <b>AGE GROUP</b>                  | 18 - 29         | 46.9%     |
|                                   | 30 - 39         | 45.2%     |
|                                   | 40-50           | 47.6%     |
| <b>INSURANCE TYPE</b>             | Commercial      | 51.2%     |
|                                   | Medicare        | 40.5%     |
|                                   | MHCP            | 40.3%     |
|                                   | Uninsured       | 25.7% *   |
| <b>NEIGHBORHOOD SES VARIABLES</b> | Low SES         | 41.0%     |
|                                   | Low-Medium SES  | 42.1%     |
|                                   | Medium-High SES | 48.5%     |
|                                   | High SES        | 53.9%     |

Optimal Asthma Control rates for adults decreased across all demographic groups shown here. The largest significant decreases in rates occurred in the following groups within each demographic category:

- Males  
*(-7.7 percentage points)*
- 18-29 Age Group  
*(-7.1 percentage points)*
- Uninsured  
*(-12.2 percentage points)*
- Low-medium SES  
*(-8.9 percentage points)*

Additionally, in 2020, male patients and those who were uninsured had a significant worsening of their existing disparities for optimal asthma control in adults.

Socioeconomic status (SES) variables represent quartiles of distribution of SES data from the Census Bureau, which is based on zip codes in which patients reside.

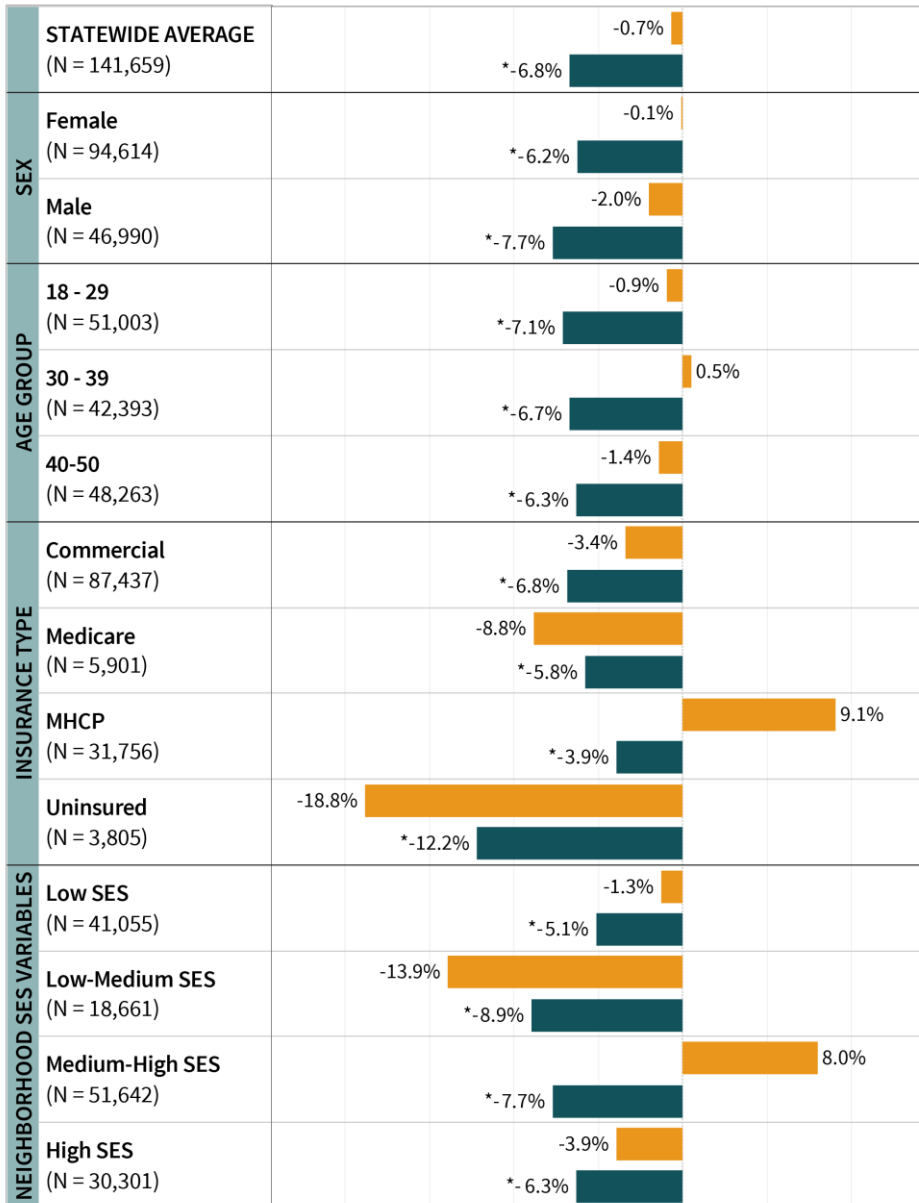
\* Disparity between the rate for this category and the statewide average increased in 2020  
 MHCP = Minnesota Health Care Program  
 2019 = care delivered in 2019 and reported in 2020  
 2020 = care delivered in 2020 and reported in 2021



### POPULATION & RATE CHANGES – ADULTS

#### Sex, Age, Insurance Type, Neighborhood Socioeconomic (SES) Variables

Comparison of 2020 to 2019



- Patients (Percent change)
- Rate (Percentage point change)

In general, the decline in number of adult patients was consistent across all demographic categories. The largest declines occurred in the uninsured and the low-medium SES populations (-18.8% and -13.9%, respectively).

Socioeconomic status (SES) variables represent quartiles of distribution of SES data from the Census Bureau, which is based on zip codes in which patients reside.

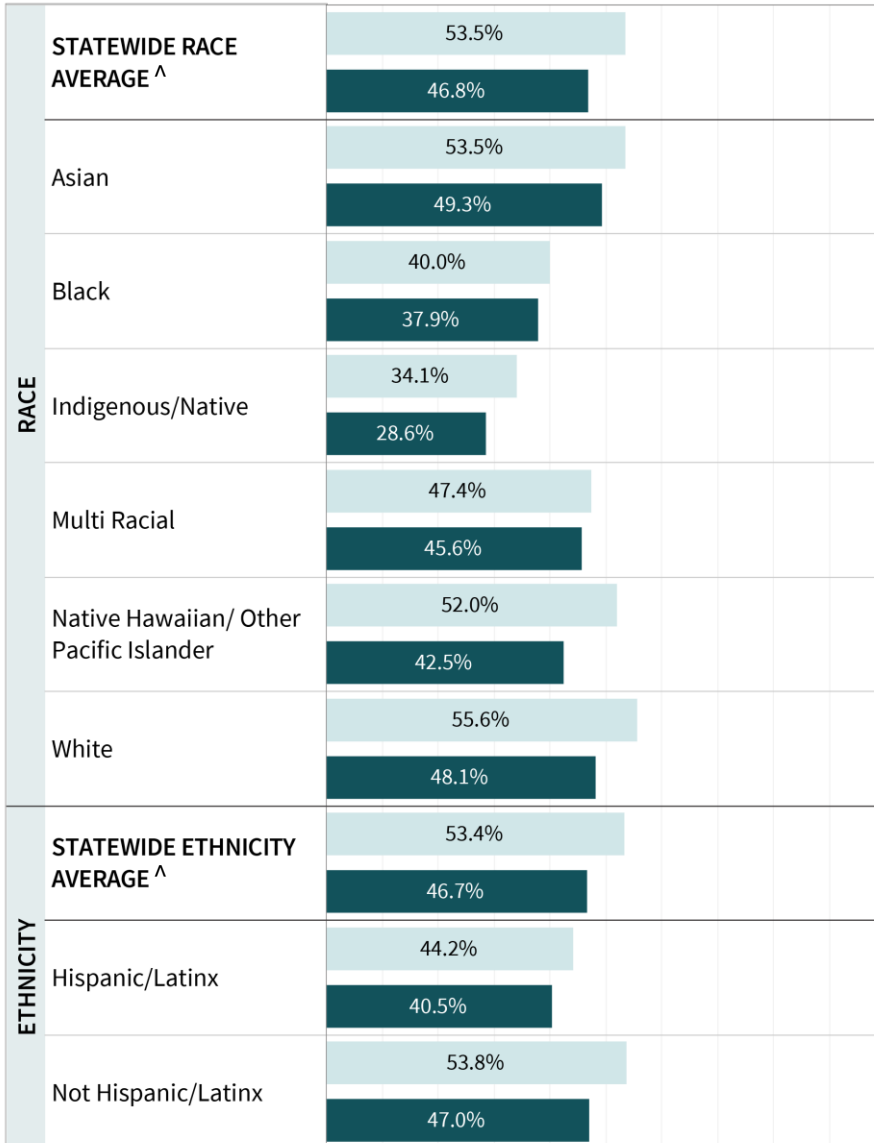
\*Significant rate change from 2019  
Note: Ns in chart are 2020 denominators



### RATE CHANGES – ADULTS

#### Race/Ethnicity

Comparison of 2020 to 2019



Within the adult asthma population, patients from all races and ethnicities experienced lower rates of optimal care in 2020. The following groups showed significant decreases:

- White  
*(-7.4 percentage points)*
- Indigenous/Native  
*(-5.4 percentage points)*
- Asian  
*(-4.2 percentage points)*
- Black  
*(-2.1 percentage points)*
- Not Hispanic/Latinx  
*(-6.8 percentage points)*
- Hispanic/Latinx  
*(-3.7 percentage points)*

2019 = care delivered in 2019 and reported in 2020

2020 = care delivered in 2020 and reported in 2021

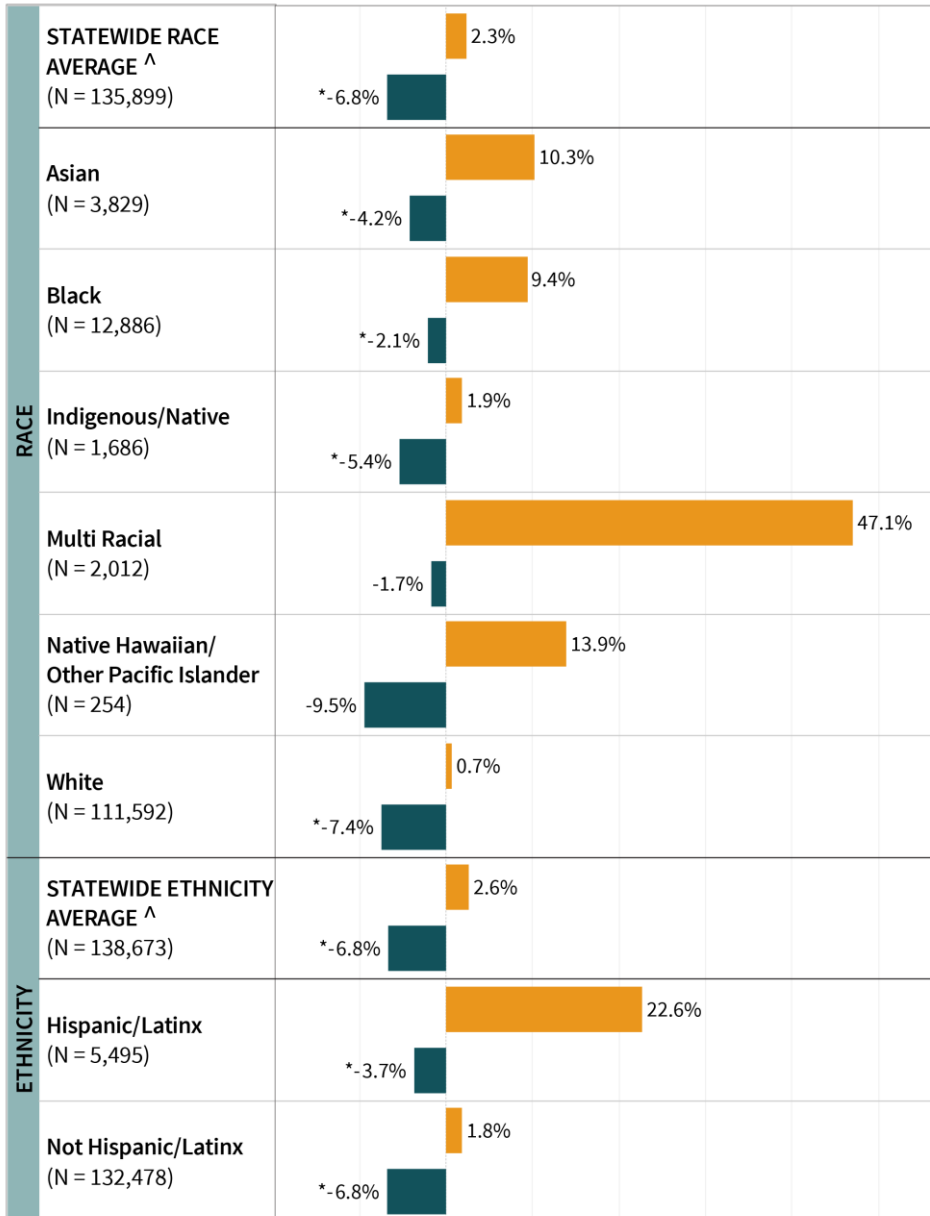
^ Statewide race/ethnicity averages are averages for patients with race/ethnicity information available



### POPULATION & RATE CHANGES – ADULTS

#### Race/ethnicity

Comparison of 2020 to 2019



■ Patients (Percent change)  
■ Rate (Percentage point change)

The multi-race and Hispanic/Latinx populations showed a large increase in number of patients; however, the number of patients reporting multiple races or Hispanic/Latinx ethnicity has been increasing for several years and is not unique to 2020 dates of service.

The number of patients increased across all race/ethnicity categories in the adult population.

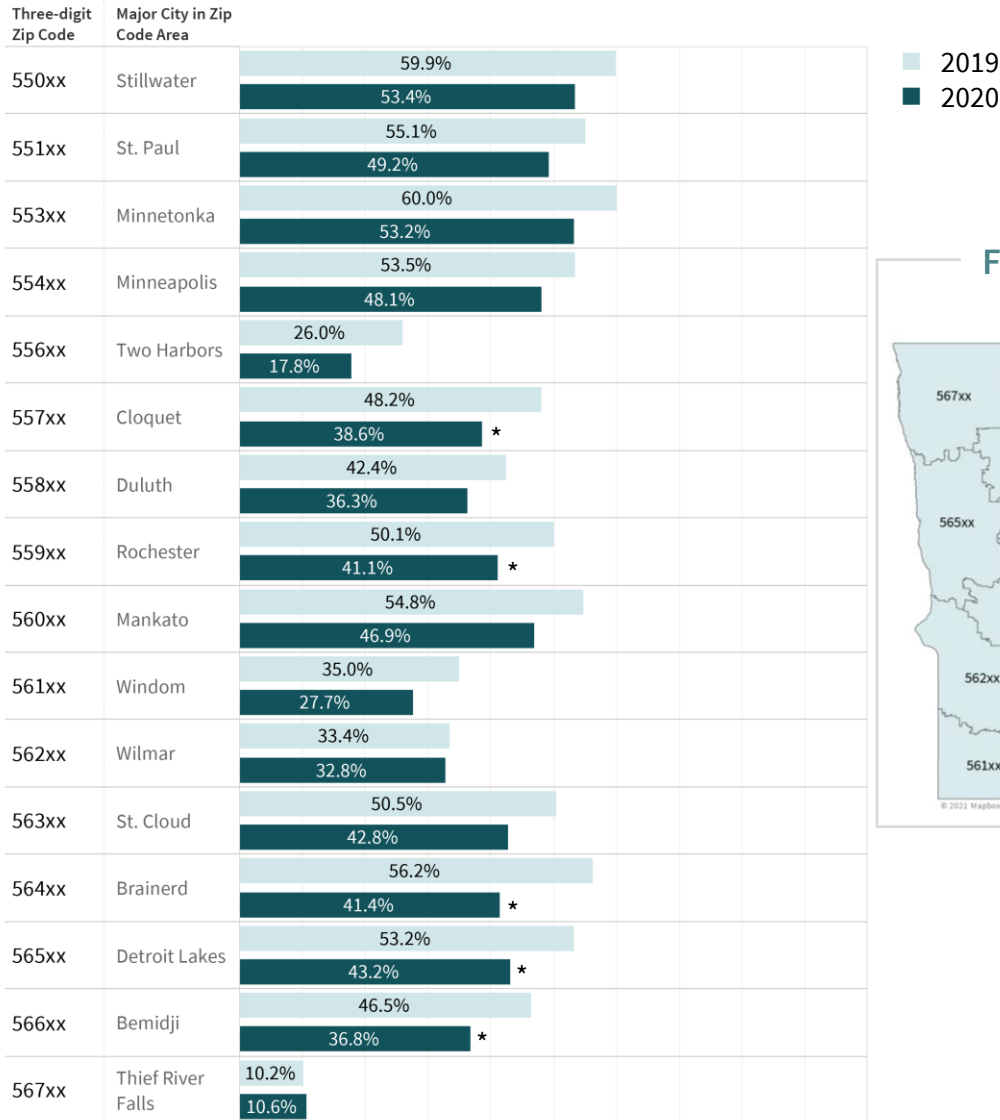
\*Significant rate change from 2019

<sup>^</sup>Statewide race/ethnicity averages are averages for patients with race/ethnicity information available

Note: Ns in chart are 2020 denominators



### THREE-DIGIT ZIP CODE – ADULTS



\* Disparity between the rate for this category and the statewide average increased in 2020  
 2019 = care delivered in 2019 and reported in 2020  
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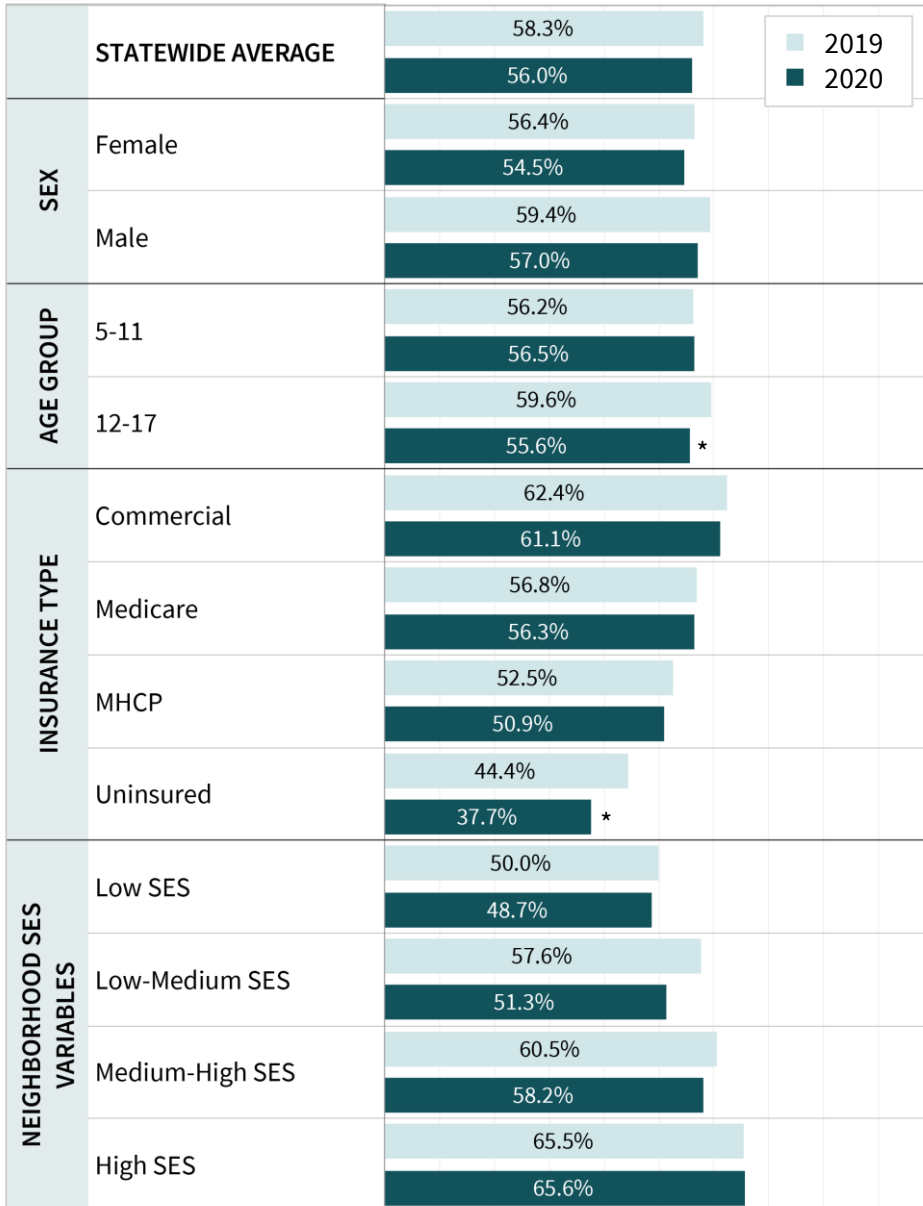
For most three-digit zip code areas, the rates of optimal asthma control for adults decreased from 2019 to 2020. In 2020, the 557 region (Cloquet area), 559 region (Rochester area), 564 region (Brainerd area), 565 region (Detroit Lakes area) and 566 region (Bemidji area) all showed a significant worsening of the regions' existing disparity for optimal asthma control for adults.



### RATE CHANGES – CHILDREN

#### Sex, Age Group, Insurance Type, Neighborhood Socioeconomic (SES) Variables

Comparison of 2020 to 2019



Optimal Asthma Control rates for children decreased across almost all demographic groups shown here. The largest significant decreases in rates occurred in the following groups within each demographic category:

- Males  
*(-2.4 percentage points)*
- 12-17 Age Group  
*(-4.0 percentage points)*
- Uninsured  
*(-6.8 percentage points)*
- Low-Medium SES  
*(-6.3 percentage points)*

Additionally, in 2020, patients who were in the 12-17 age group and those who were uninsured had a significant worsening of their existing disparities for optimal asthma control for children.

Socioeconomic status (SES) variables represent quartiles of distribution of SES data from the Census Bureau, which is based on zip codes in which patients reside.

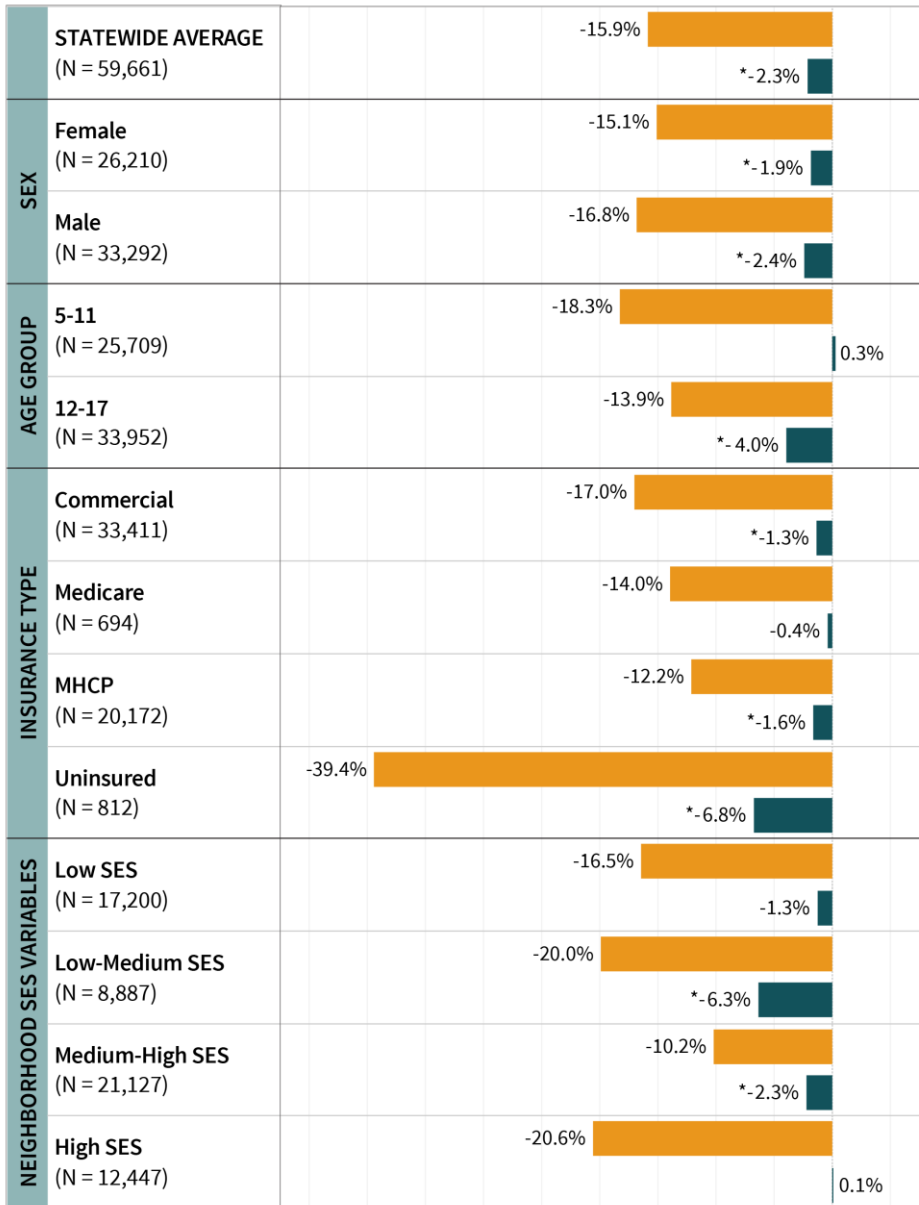
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 MHCP = Minnesota Health Care Program  
 2019 = care delivered in 2019 and reported in 2020  
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### POPULATION & RATE CHANGES – CHILDREN

#### Sex, Age, Insurance Type, Neighborhood Socioeconomic (SES) Variables

Comparison of 2020 to 2019



■ Patients  
(Percent change)  
■ Rate  
(Percentage point change)

The decline in number of child patients was consistent across all demographic categories. The largest declines occurred in the uninsured and the high SES populations (-39.4% and -20.6%, respectively).

Socioeconomic status (SES) variables represent quartiles of distribution of SES data from the Census Bureau, which is based on zip codes in which patients reside.

\*Significant rate change from 2019  
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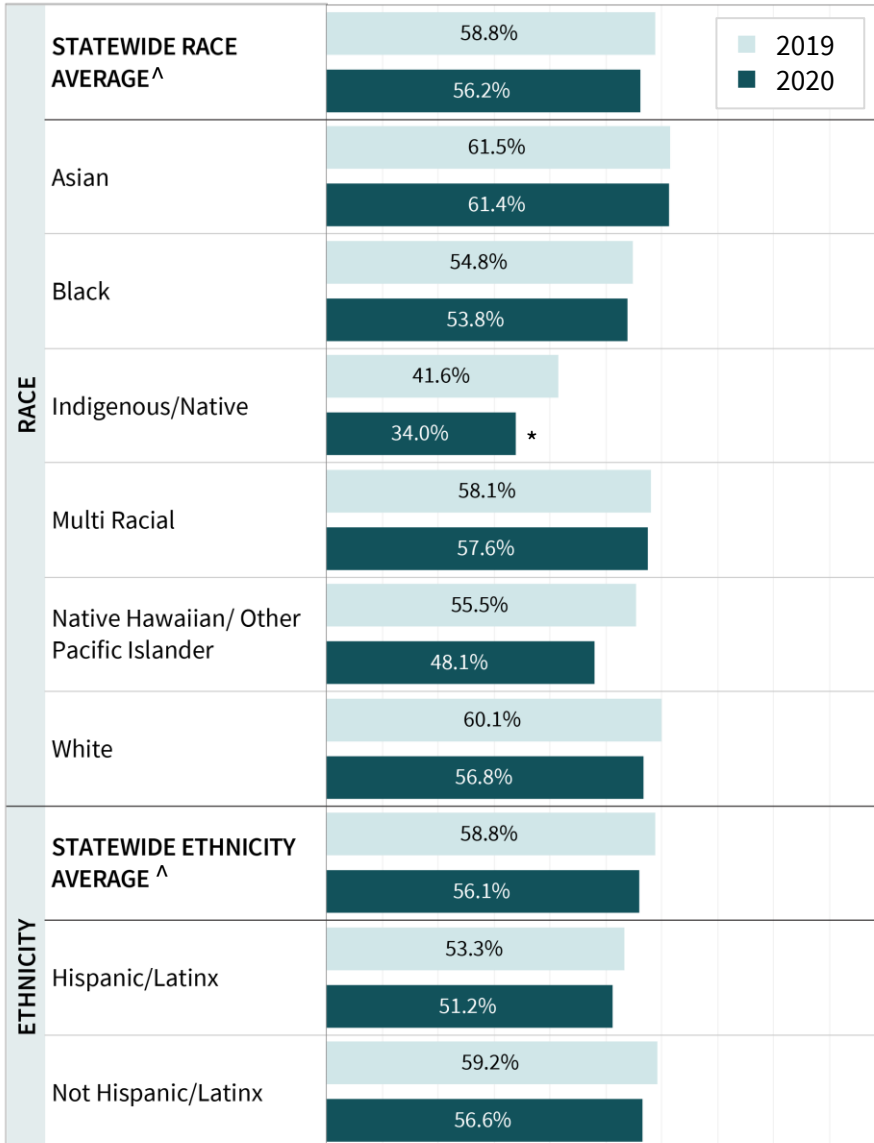




### RATE CHANGES – CHILDREN

#### Race/Ethnicity

Comparison of 2020 to 2019



Within the child asthma population, patients from all races and ethnicities experienced lower rates of optimal care in 2020. The following groups showed significant decreases:

- Indigenous/Native (-7.7 percentage points)
- White (-3.3 percentage points)
- Not Hispanic/Latinx (-2.7 percentage points)

Additionally, in 2020, Indigenous/Native patients had a significant worsening of their existing disparities for optimal asthma control in children.

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2020 = care delivered in 2020 and reported in 2021

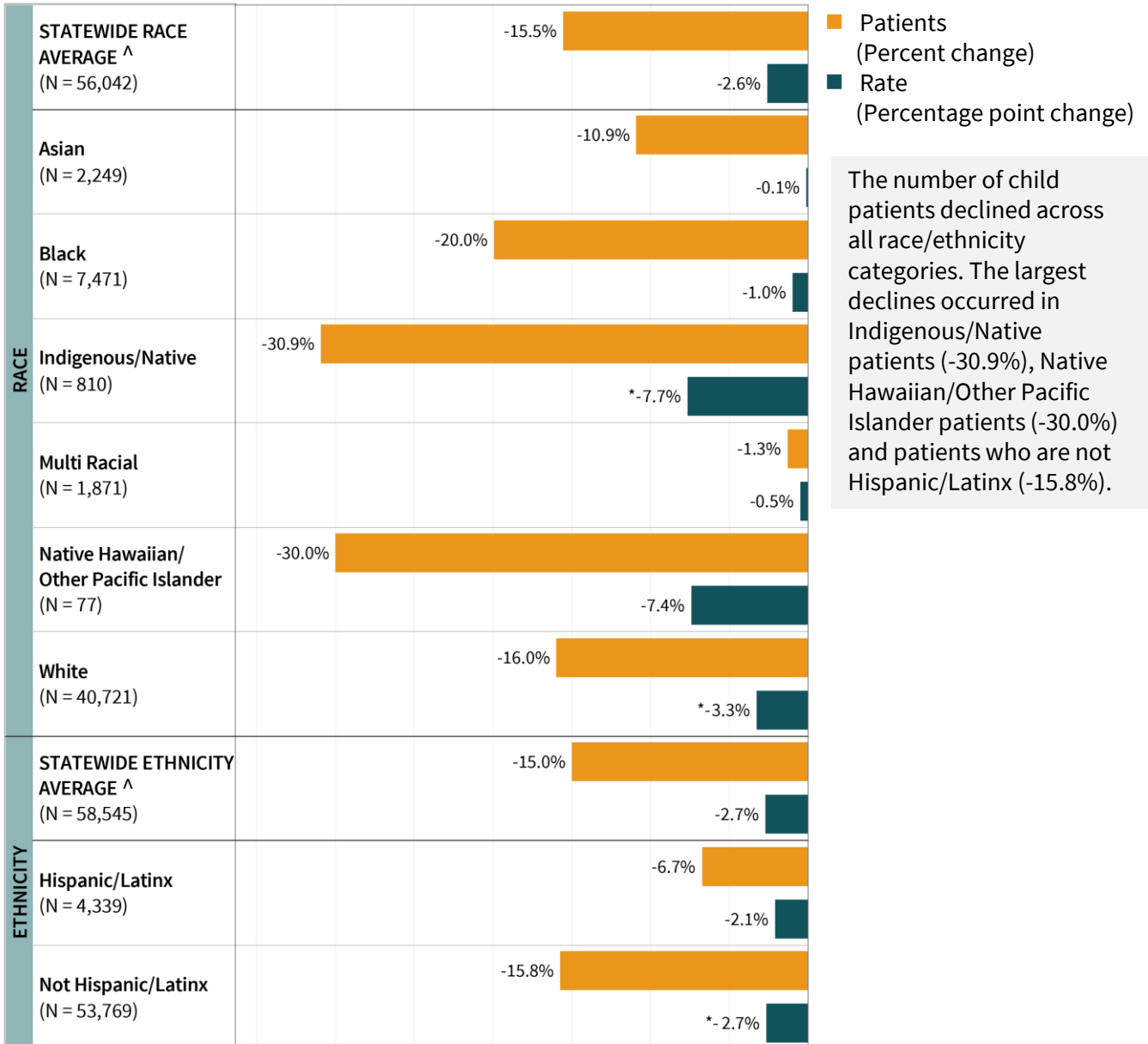
<sup>^</sup>Statewide race/ethnicity averages are averages for patients with race/ethnicity information available



### POPULATION & RATE CHANGES – CHILDREN

#### Race/ethnicity

Comparison of 2020 to 2019



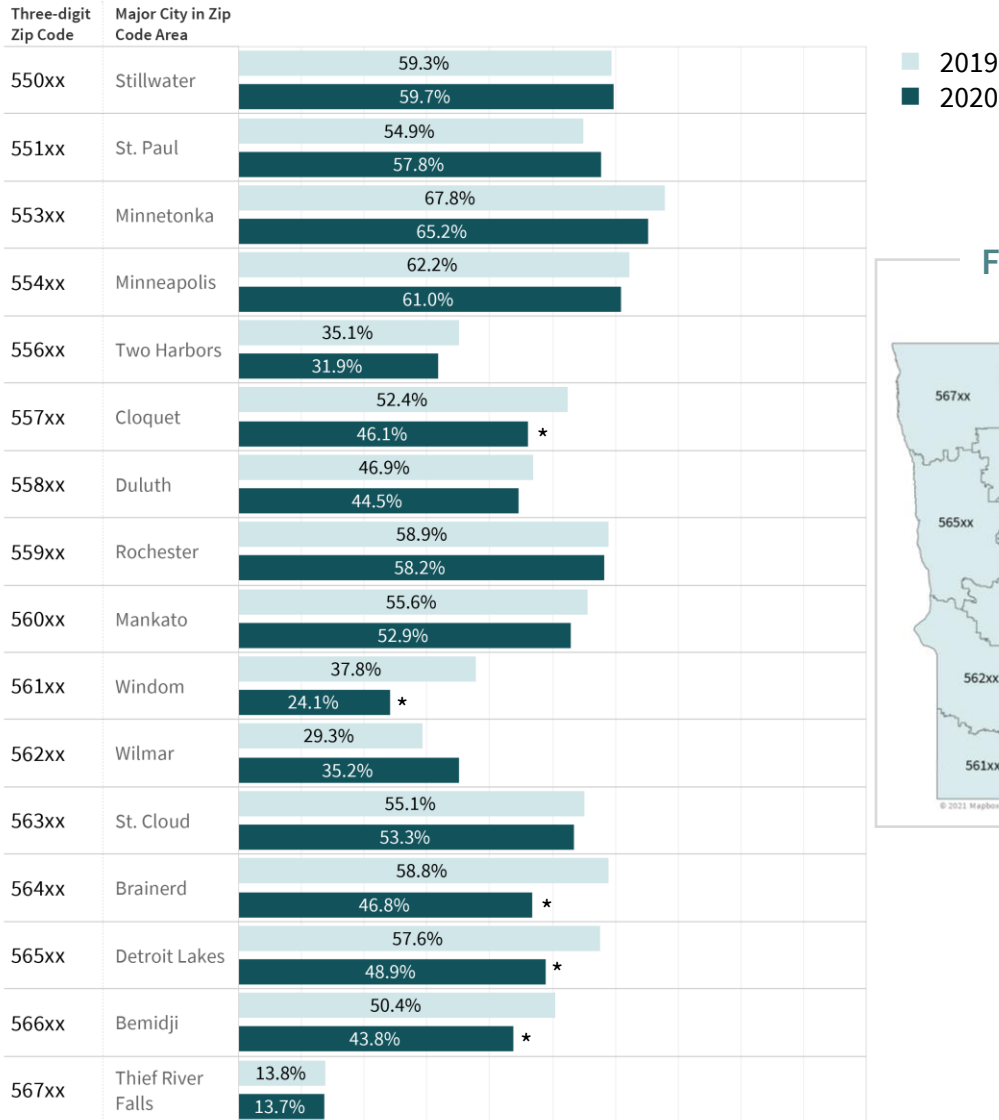
\*Significant rate change from 2019

<sup>^</sup>Statewide race/ethnicity averages are averages for patients with race/ethnicity information available

Note: Ns in chart are 2020 denominators



### THREE-DIGIT ZIP CODE – CHILDREN



\* Disparity between the rate for this category and the statewide average increased in 2020  
 2019 = care delivered in 2019 and reported in 2020  
 2020 = care delivered in 2020 and reported in 2021

For most three-digit zip code areas, the rates of optimal asthma control for children decreased from 2019 to 2020. In 2020, the 557 region (Cloquet area), 561 region (Windom area), 564 region (Brainerd area), 565 region (Detroit Lakes area) and 566 region (Bemidji area) all showed a significant worsening of the regions' existing disparity for optimal asthma control for children.



### ISSUE BRIEF SERIES

This issue brief is one of a series of issue briefs that summarizes the impact of COVID-19 at the demographic level for each of the measures. The measures featured in the summary report and in the issue briefs are measures collected by MNCM directly from medical groups and clinics. Below are links to each of the other measure issue briefs as well as the spotlight report which summarizes the overall rate changes and findings.

- [Spotlight Report](#)
- [Optimal Diabetes Care](#)
- [Optimal Vascular Care](#)
- [Colorectal Cancer Screening](#)
- [Adolescent Mental Health and/or Depression Screening](#)
- [Depression Care](#)

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