Childhood Obesity Rates for Children seen at Gundersen Health System, Ages 3+ 2012-2022

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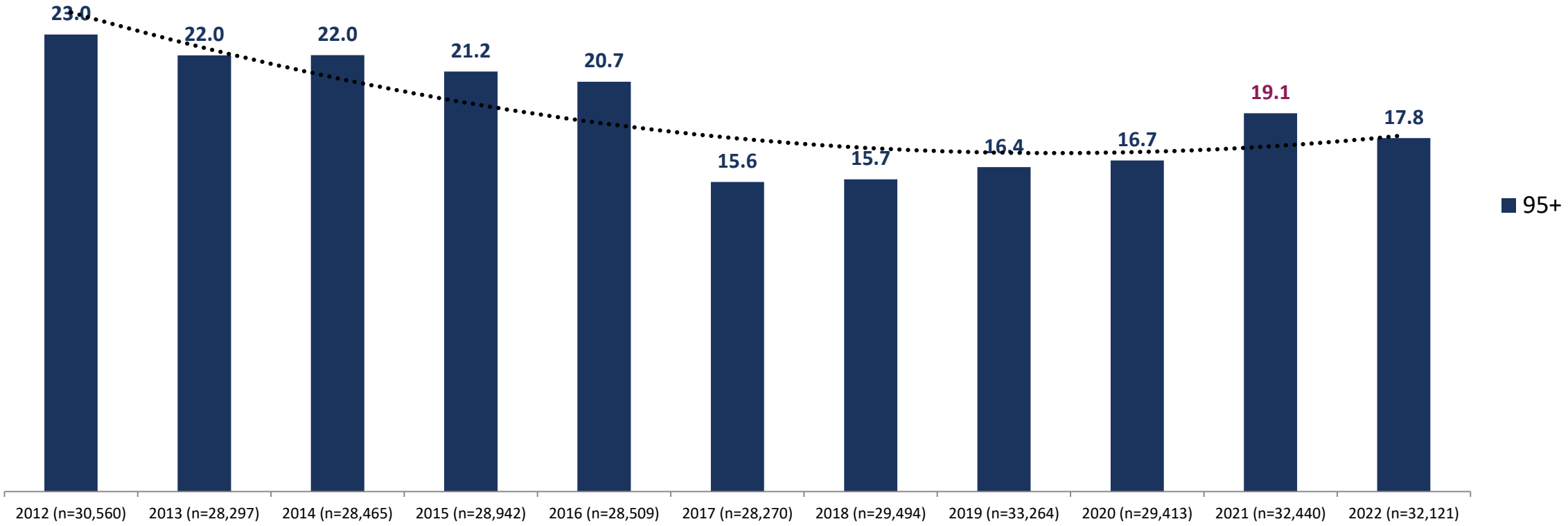
Obesity Definition for Children 3 to 19 years of age

- CDC Growth Charts are used to determine the corresponding BMI-for-age and sex percentile. For children and adolescents (aged 3—19 years):
  - Overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile for children of the same age and sex.
  - Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex

Number of Children by Year

Year	Children < 3	Children 3-19	Total
2012	5,374	30,560	35,934
2013	6,247	28,297	34,544
2014	6,062	28,465	34,527
2015	6,123	28,942	35,065
2016	6,240	28,509	34,749
2017	5,912	28,270	34,182
2018	6,291	29,494	35,785
2019	6,839	33,264	40,103
2020	6,567	29,413	35,980
2021	7,017	32,440	39,457
2022	6,799	32,803	39,602

Obesity rate *declined* from 2012 to 2017 but has been **increasing** since. There was a significant increase in 2021 to 19.1% of patients obese. In 2022 rate was lower at 17.8%.



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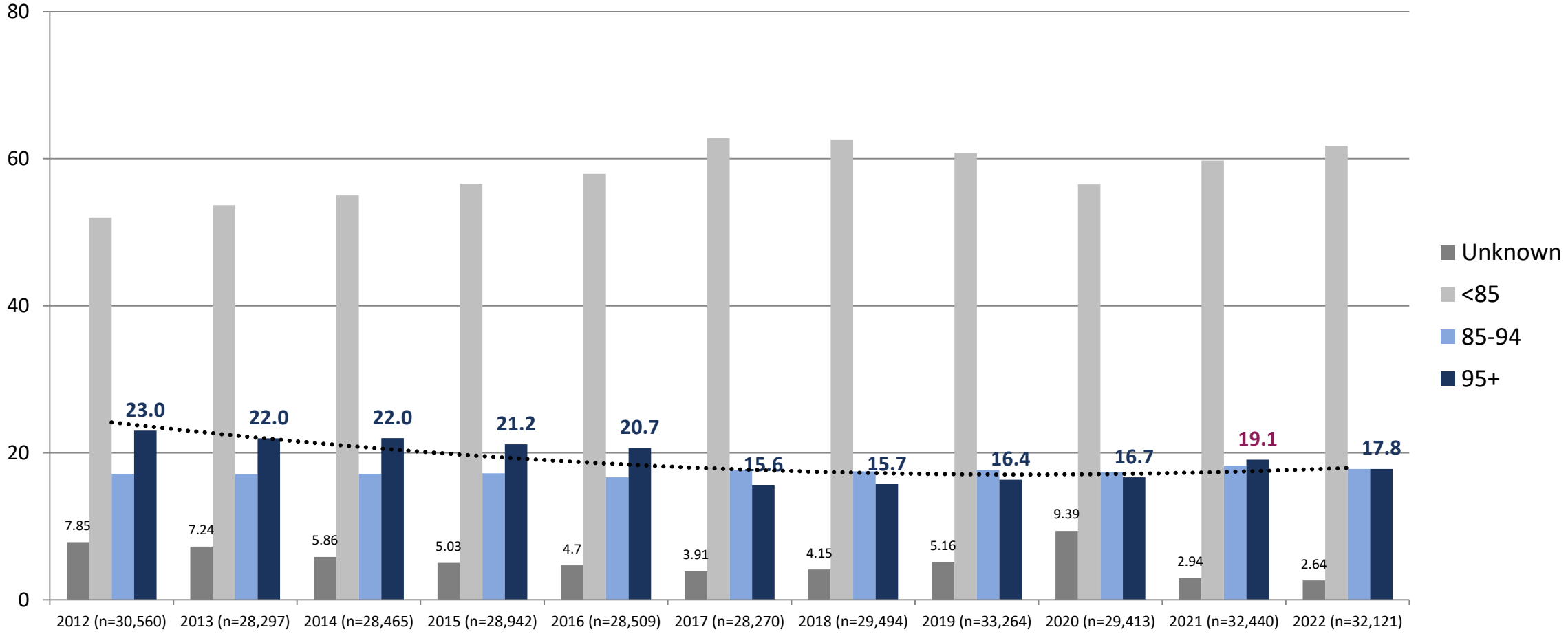
Obesity rate *declined* from 2012 to 2017 but has been **increasing** since. Percent of children in the 85-94 percentile has remained steady since 2012.



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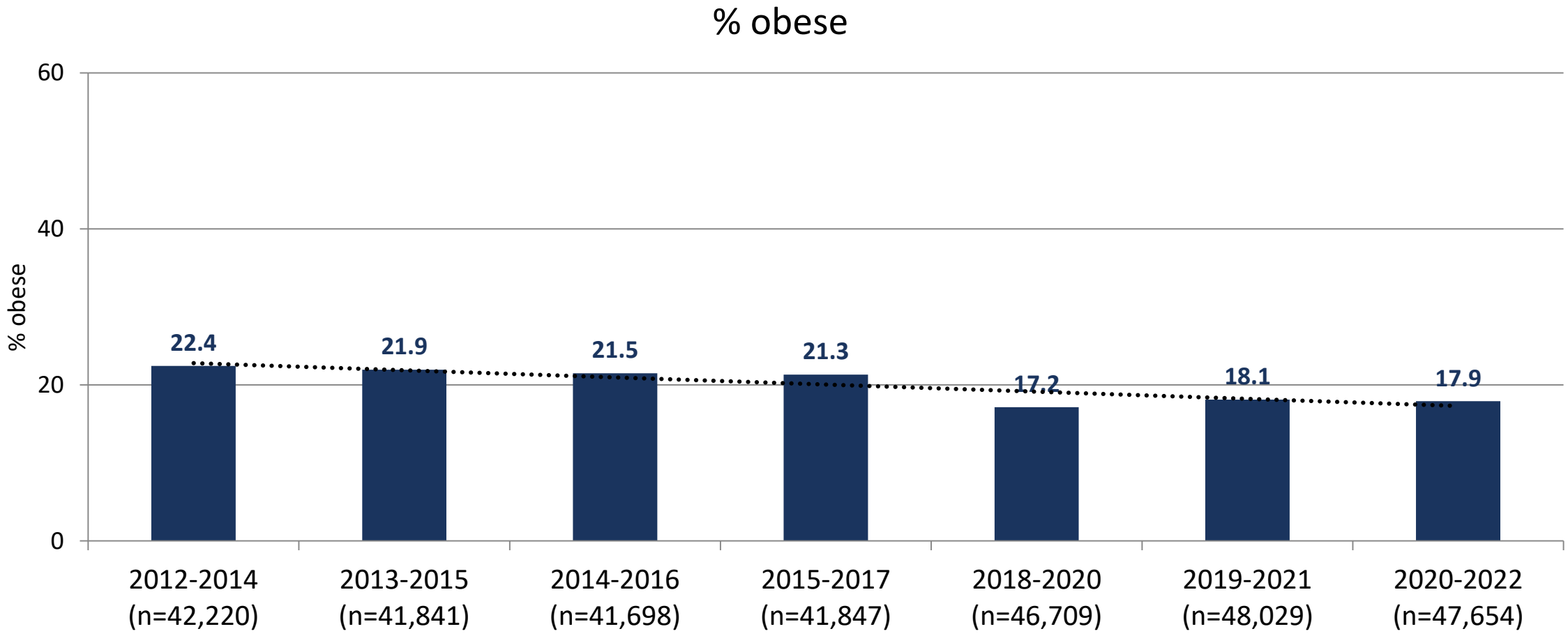
Last known status when combining patients into 3-year panels. Obesity status was declining but has been increasing since 2018.



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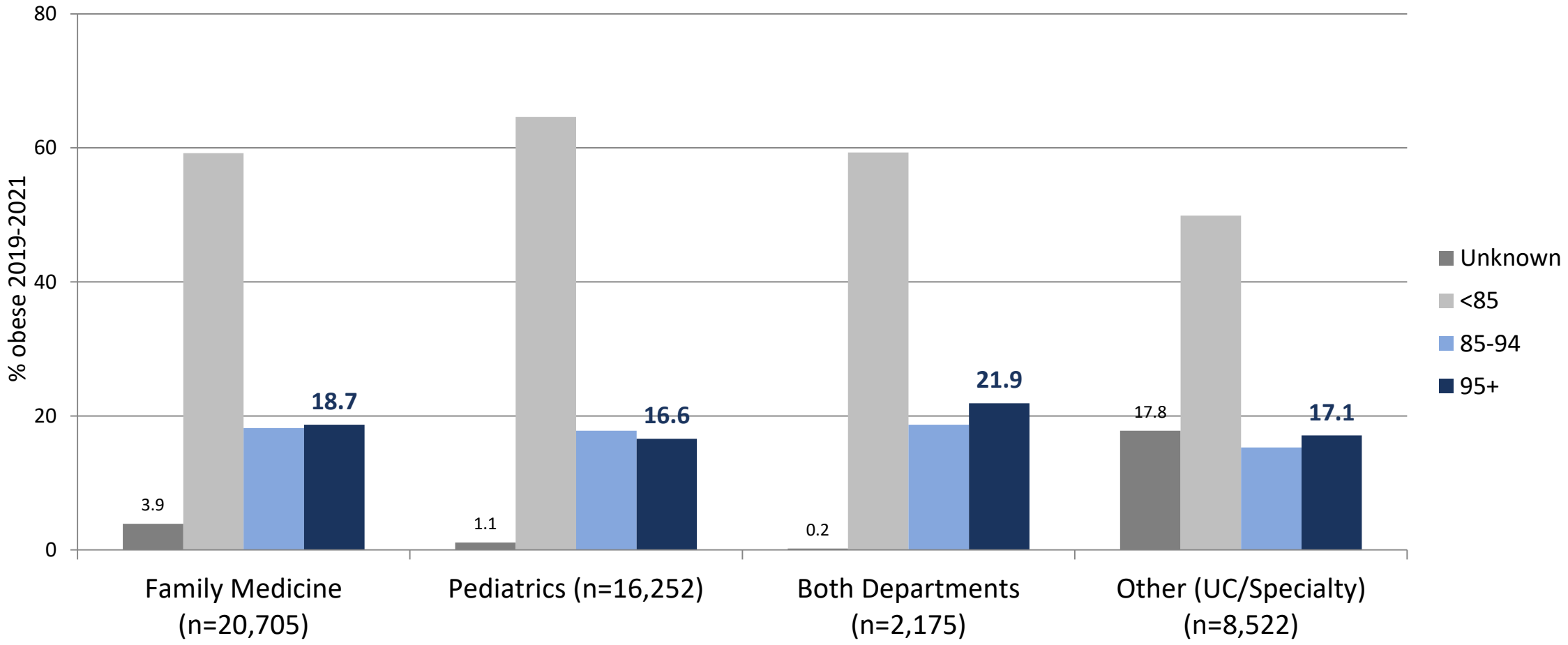
Obesity is highest in children seen in multiple departments, but overall, slightly higher in Family Medicine than Pediatrics departments (2020-2022)



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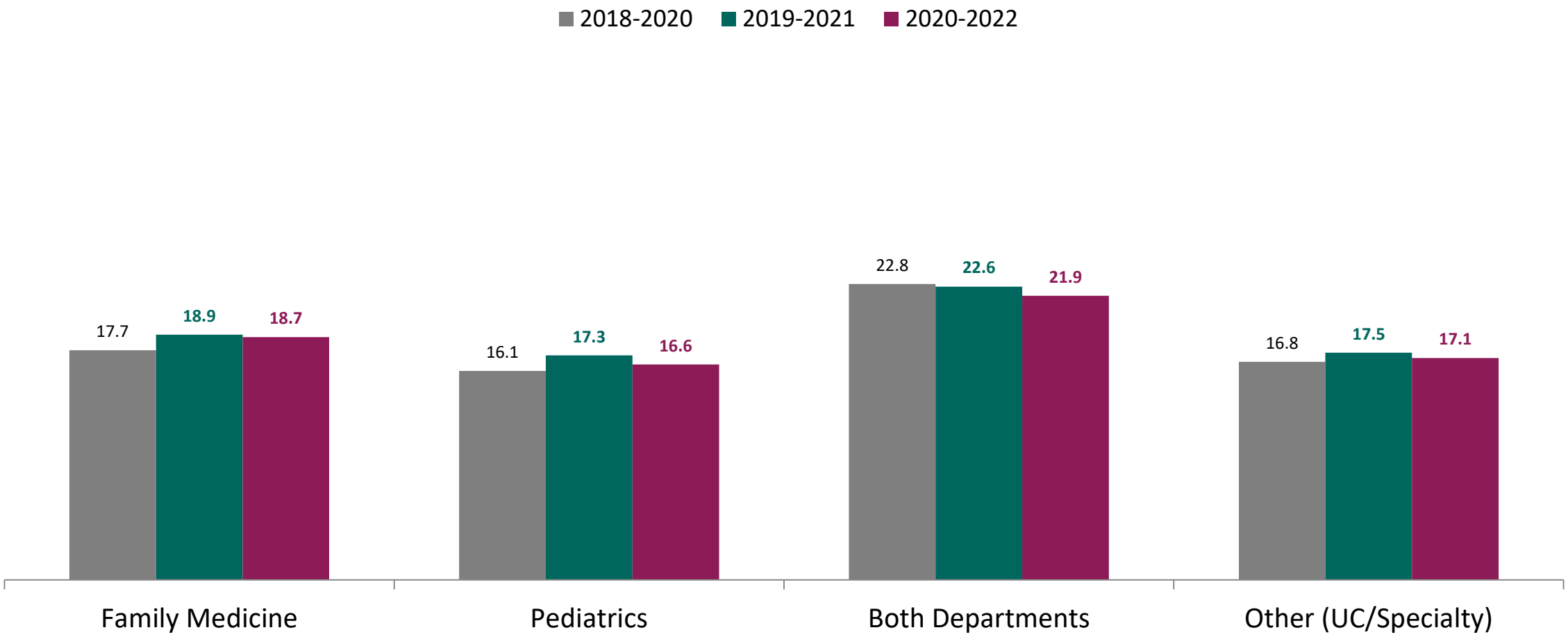
% Obesity is highest in children seen in multiple departments, but overall higher in Family Medicine than Pediatrics departments



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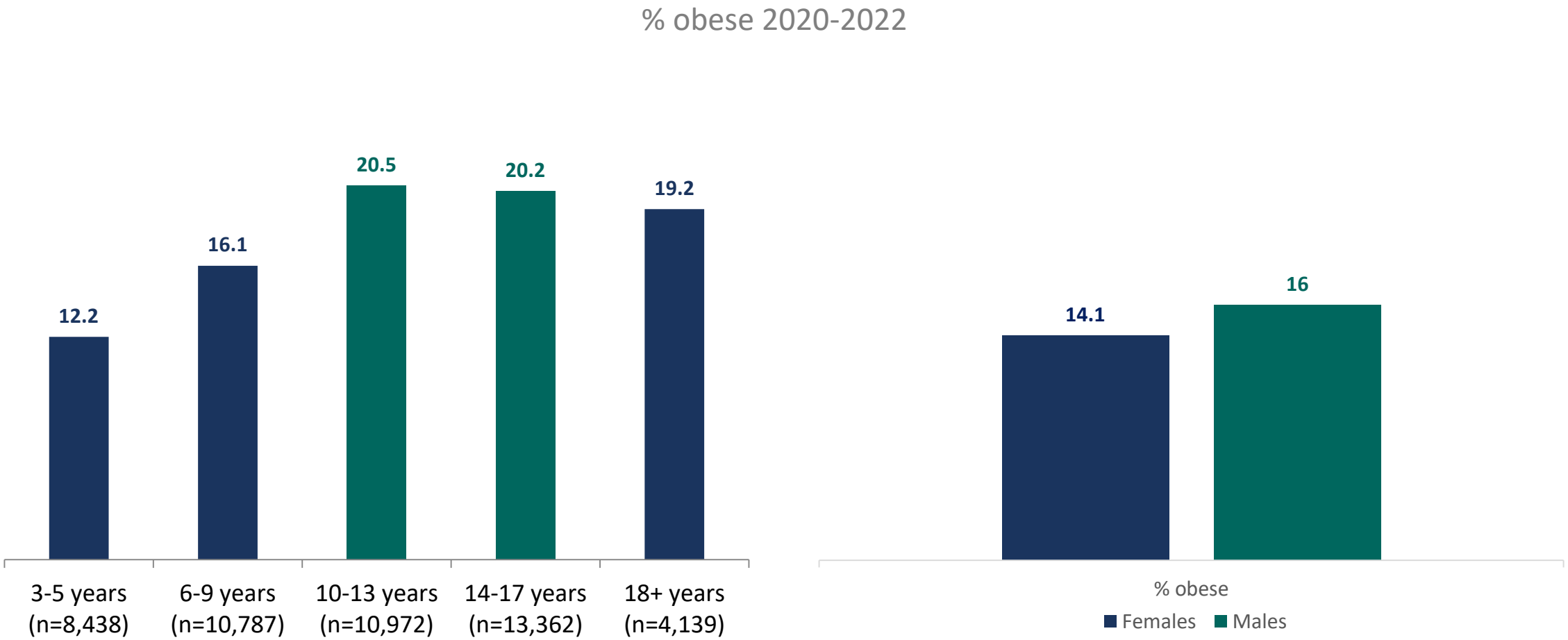
Males, and children ages 10-13, and 14-17 had the highest rate of obesity (over one in five children).



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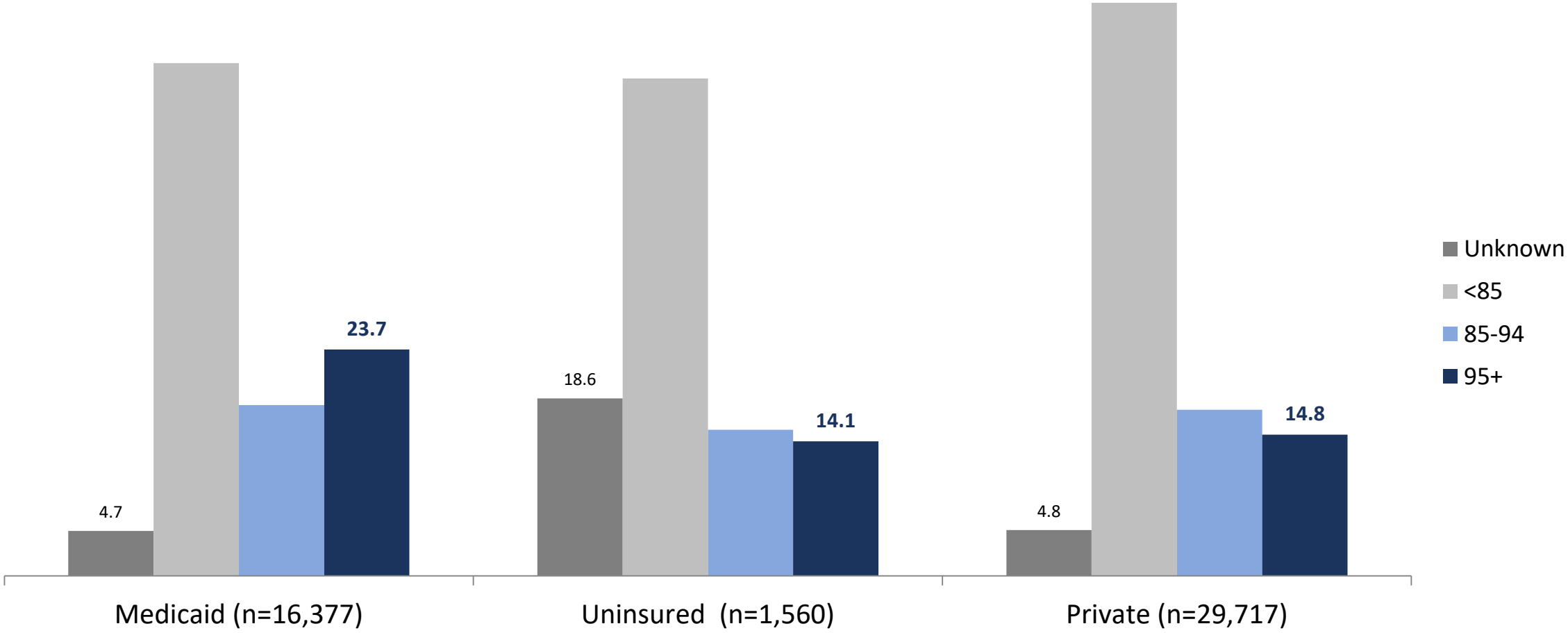
Obesity rate for children seen in 2020-2022 was the highest for those on Medicaid (nearly one in four children). Children with **Medicaid** were 1.6X more likely to be obese than children with private insurance. Many uninsured children were missing measures for BMI.



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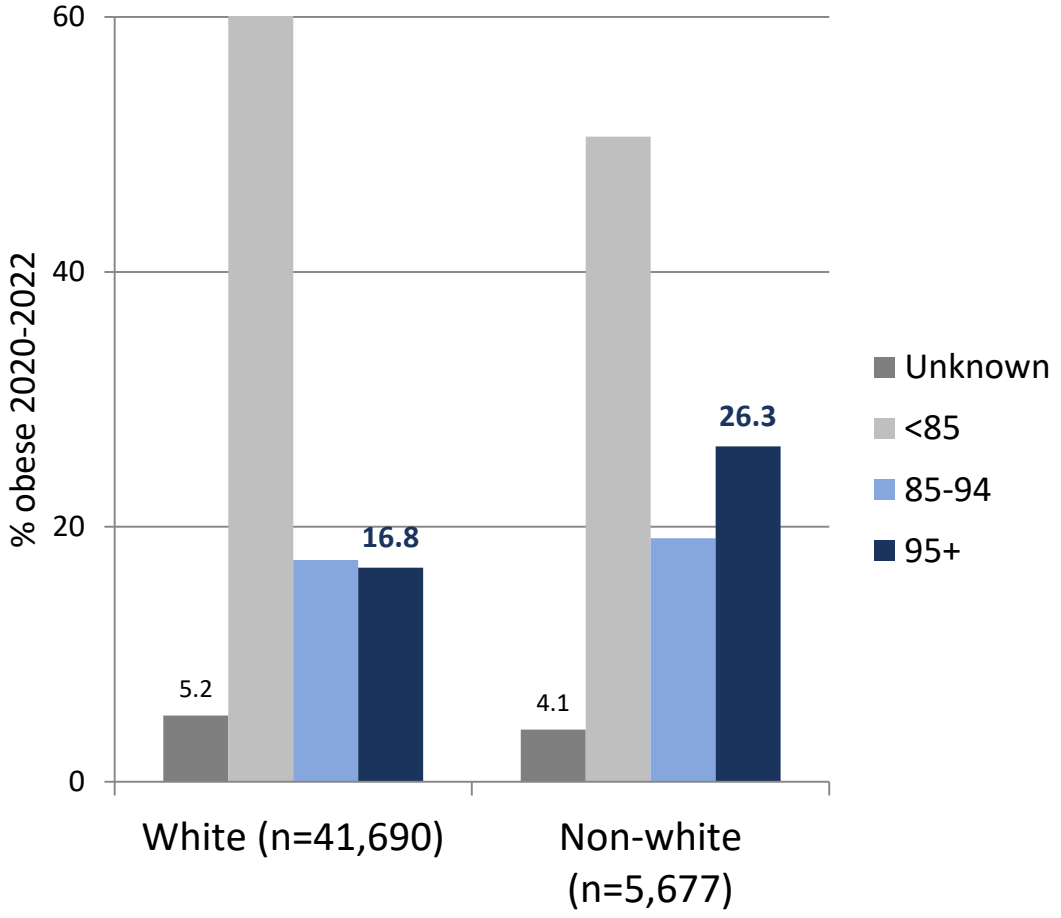
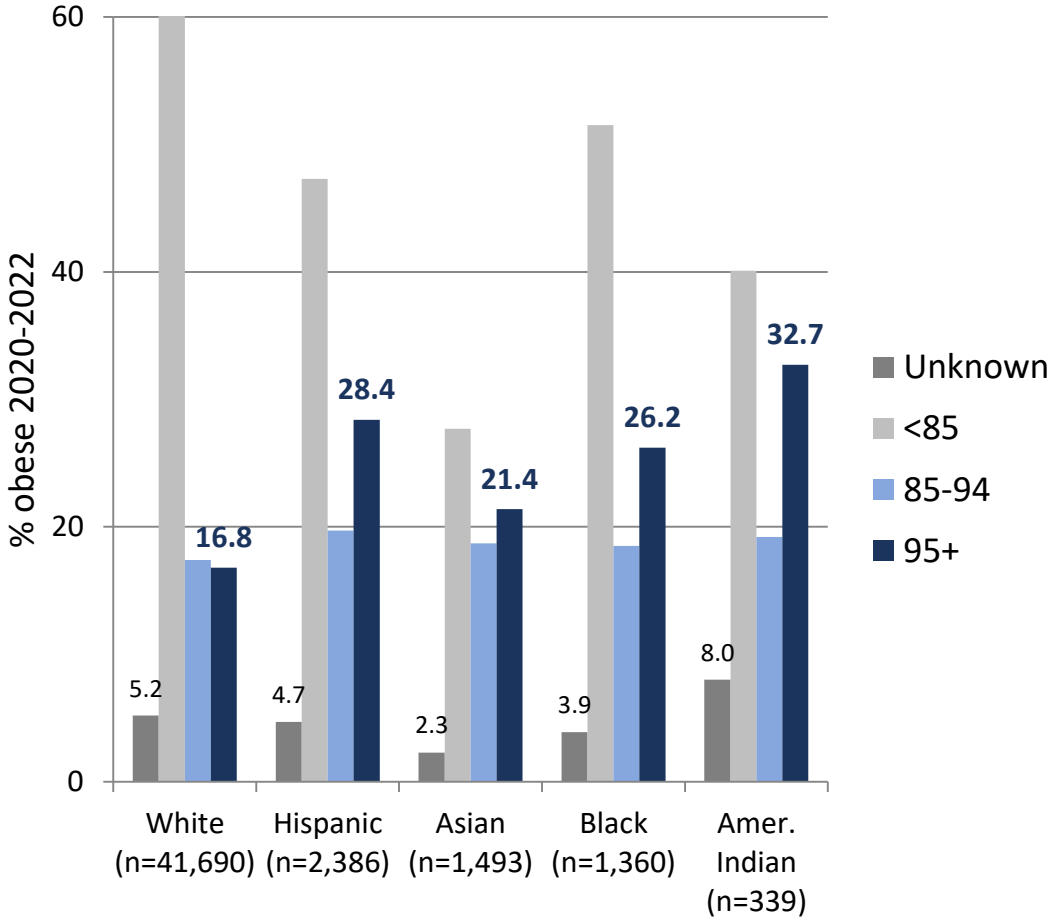
Obesity was the highest in non-white children. Of non-white children, obesity was highest in American Indian, and Hispanic, followed by Black children.





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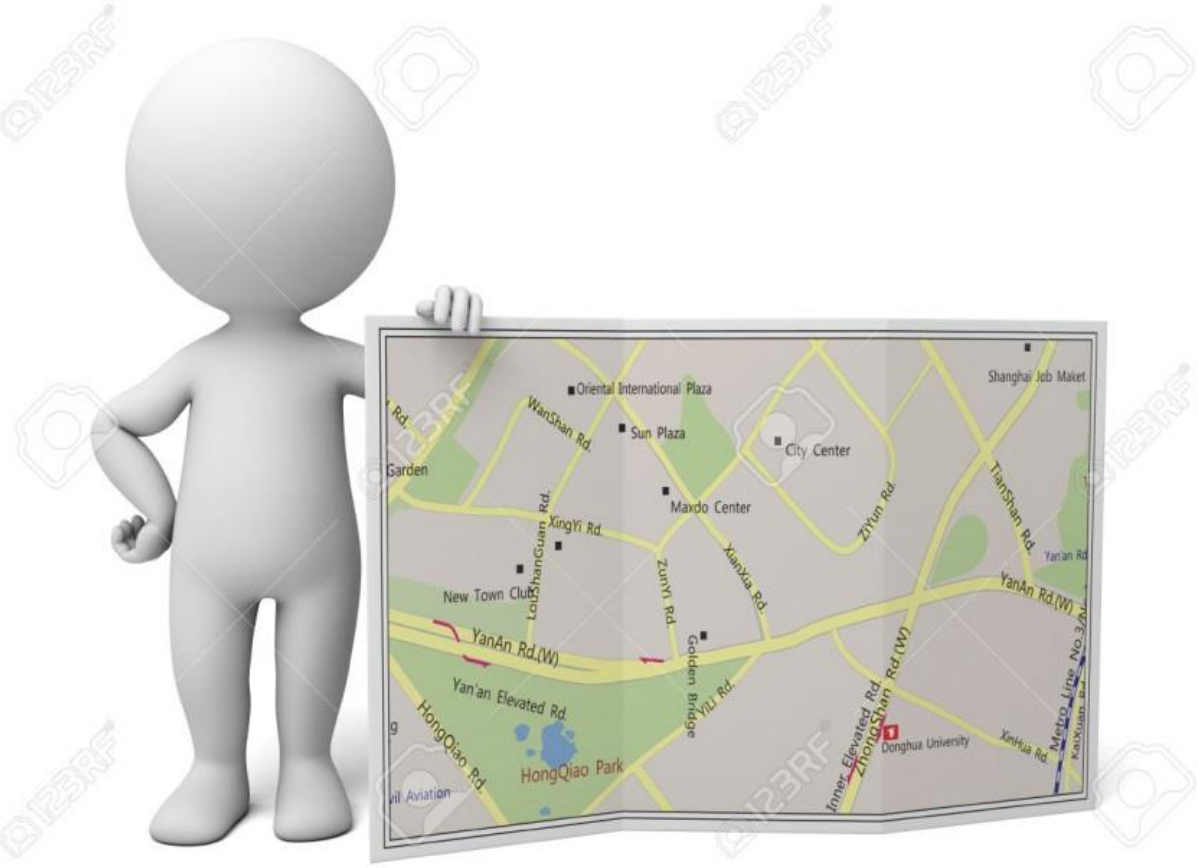
Living Location



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WCHQ Colorectal Cancer Screening by Rural/Urban Categories

Health Disparities Report: Rural and Urban Populations, 2020

Group	Characteristics
Rural Underserved	The population living in these 95 ZIP codes have access to fewer health care providers and experiences higher rates of poverty, uninsured, and Medicaid. In addition, there is lower educational attainment and poorer health status.
Rural	The population living in these 233 ZIP codes have access to a moderate amount of health care providers and experiences moderate rates of poverty, uninsured and Medicaid. In addition, there is moderate educational attainment and moderate health status.
Rural Advantaged	The population living in these 172 ZIP codes have access to fewer health care providers, but have low rates of poverty, uninsured, and Medicaid. In addition, there are moderate rates of educational attainment and better health status.
Urban Underserved	The population living in these 23 ZIP codes have access to a moderate amount of health care providers and experiences higher rates of poverty, unemployment, uninsured, and Medicaid. In addition, there is lower educational attainment and poorer health status.
Urban	The population living in these 104 ZIP codes have access to fewer health care providers and experiences lower rates of poverty, uninsured, and Medicaid. In addition, there are moderate rates of educational attainment and moderate health status.
Urban Advantaged	The population living in these 65 ZIP codes have access to many providers and experiences lower rates of poverty, uninsured, and Medicaid. In addition, there is higher educational attainment and better health status.

Source of Zip code categories Health Innovation Program. ZIP Codes by Rural and Urban Groupings Toolkit. Health Innovation Program, University of Wisconsin-Madison. Madison, WI; 2021.

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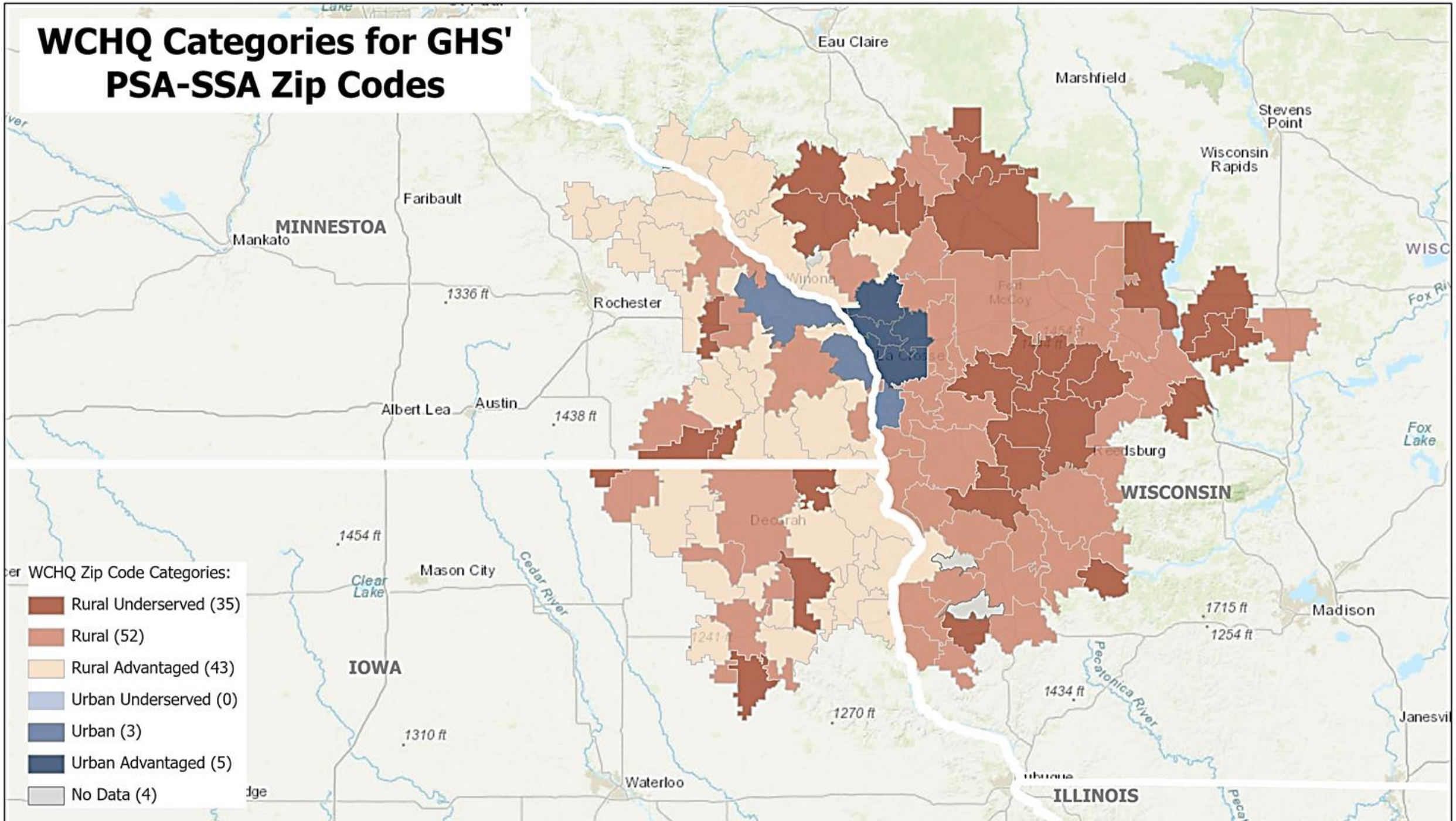
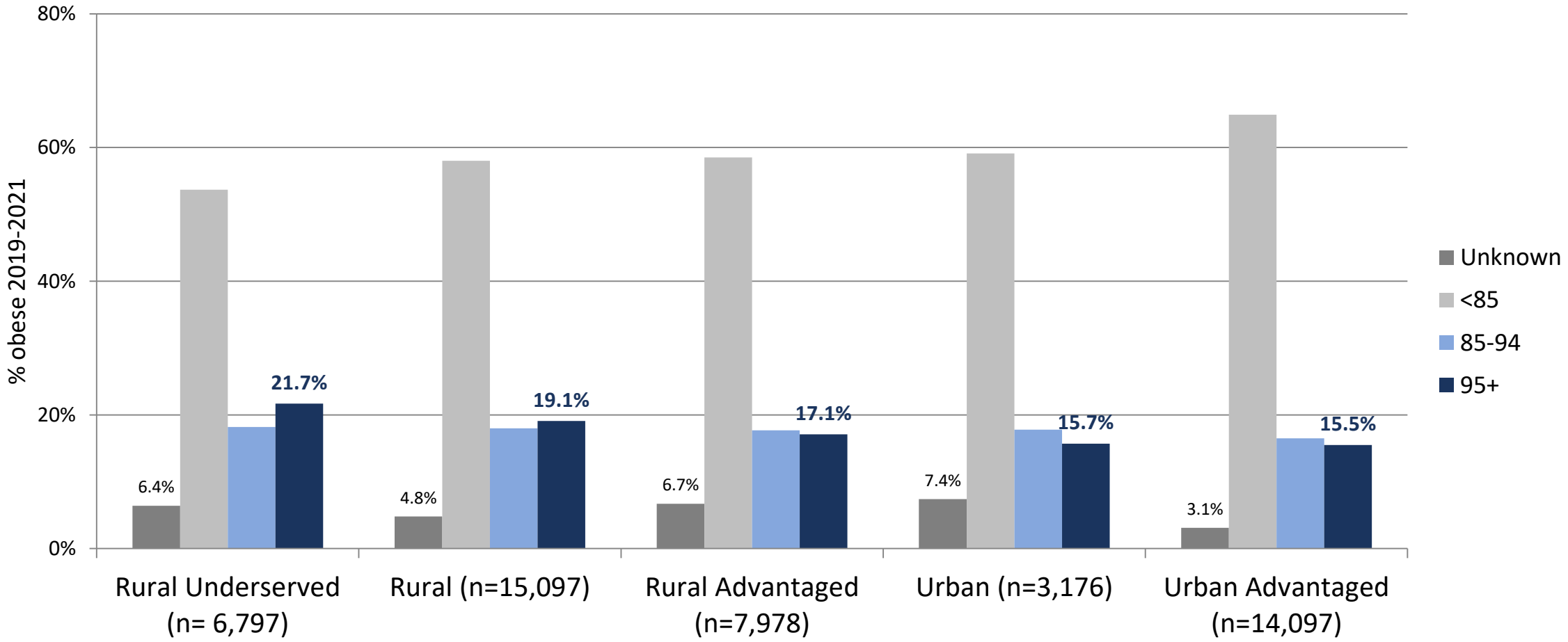
WCHQ Categories for GHS' PSA-SSA Zip Codes



Obesity was highest for children living in **rural underserved** zip codes and lowest in **urban** and **urban advantaged**.



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WI County	% obese	# obese	Total patients
Adams	29.7	111	374
Buffalo	17.6	103	584
Crawford	19.9	247	1242
Grant	22.3	221	990
Jackson	17.2	154	894
Juneau	19.1	229	1198
La Crosse	13.8	2151	15545
Marquette	29.9	32	107
Monroe	17.9	1011	5634
Richland	18.2	60	329
Trempealeau	17.4	618	3555
Vernon	15.4	521	3380

MN County	% obese	# obese	Total patients
Fillmore	14.3	106	739
Houston	13.1	356	2715
Wabasha	14.9	52	348
Winona	13.7	328	2393

IA County	% obese	# obese	Total patients
Allamakee	18.6	444	2384
Clayton	17.0	114	672
Fayette	17.4	262	1510
Howard	14.1	50	355
Winneshiek	13.3	249	1877

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Conclusions

- 18% of patients seen in the past three years were in the 95th or higher BMI Percentile
- Obesity increased significantly in 2021 but may be returning to pre-pandemic trends
- Age:
  - Highest rate **10-17 year-old** children
- Gender
  - Highest rate for **males**
- Insurance
  - Highest rate in **Medicaid**
- Race
  - Highest rate among **non-White**
  - All non-White racial groups have a higher rate of obesity than White
- Type of community:
  - **Rural underserved** > Rural > Rural Advantaged > Urban/Urban Advantaged
  - **Adams, Marquette and Grant** counties have the highest rate of obesity among all pediatric patients

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