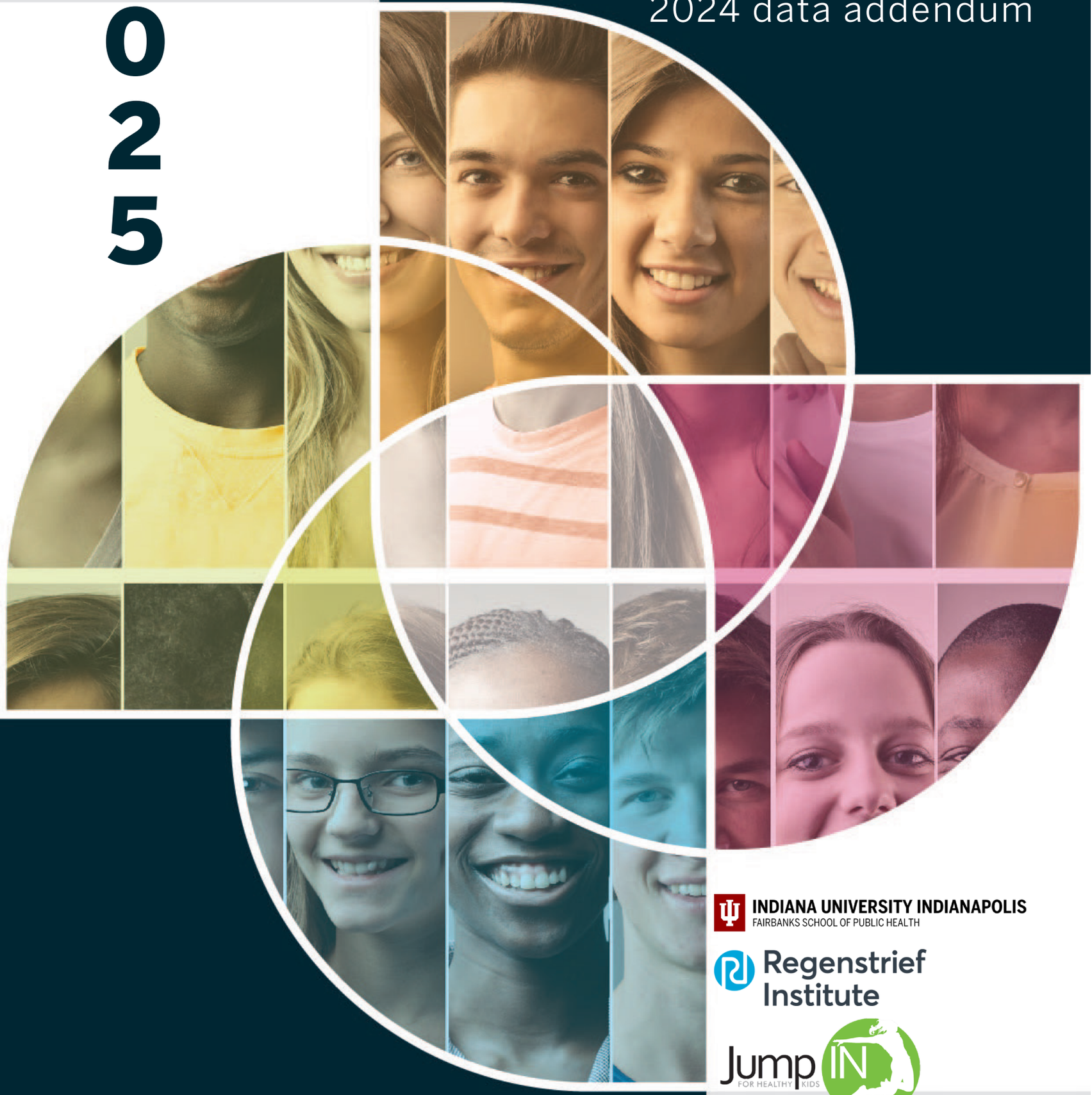
2025

Weight Trends Among Children and Adolescents within Central Indiana 2024 data addendum



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Acknowledgements

The Project Team gratefully acknowledges feedback from members of the Jump IN for Healthy Kids Data Advisory Work Group.

This publication was made possible in part by a grant from Jump IN for Healthy Kids.

This publication was supported by Coronavirus Relief Fund Grants from Department of the Treasury. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Department of the Treasury.

Executive Summary

The 2024 data addendum report on childhood obesity trends in central Indiana from 2014 to 2024 reveals significant insights into the prevalence and changes in obesity rates among children and adolescents. Among the 602,209 unique individuals, the updated data include an additional 377,104 patient encounters in 2024, extending the longitudinal nature of this report and its findings. This analysis encompasses data from 1,615,866 encounters, stratified by county, age group, sex, and race/ethnicity.

Key findings include:

- Overall Increase in Obesity: Childhood obesity in central Indiana increased by 6.0% over the past 11 years, with the most substantial rise occurring between 2020 and 2021 (5.3%), coinciding with the COVID-19 pandemic.
- Sex Differences: Both males and females experienced increases in obesity rates, with females showing a slightly larger increase (6.1%) compared to males (5.9%) from 2014 to 2024.
- Age Group Trends: The largest increase in obesity prevalence was observed among children aged 2-5 years, with an 81% rise from 2014 to 2024. Smaller increases were noted in the 6-11 (31.4%) and 12-19 (25.3%) age groups.
- Race/Ethnicity Variations: Significant increases in obesity rates were seen across all racial/ethnic groups from 2014 to 2024, with Hispanic and African American populations experiencing the largest increases (8.1% and 7.5%, respectively). Hispanic males saw a 33.5% relative increase, while African American females experienced a 41.4% relative increase.
- County-Specific Trends: From 2014 to 2024, Shelby County had the highest percentage-point increase in obesity prevalence (8.3%), followed by Marion (7.2%) and Morgan (6.9%) counties. Boone County had the smallest increase (4.2%). These findings highlight the growing challenge of childhood obesity in central Indiana and demonstrate the need for targeted interventions and policies to address this public health issue.
- The updated findings reveal a continued increase in obesity prevalence, with notable demographic variations and significant impacts from the COVID-19 pandemic. This report aims to provide a deeper understanding of the evolving obesity trends and inform targeted public health strategies to mitigate this growing concern.

Results

Table 1 displays descriptive characteristics of all encounters analyzed for this report, giving frequencies and percentages by county of residence, age category, and race/ethnicity stratifying by sex. The percentages in the Total column reflect the number of encounters with the characteristic divided by the N and multiplied by 100.

Table 1. Descriptive Statistics, N = 1,615,866 encounters among children and adolescents in central Indiana (602,209 individuals)

County	Female	Male	Total
Boone	27,463 (50.6%)	26,808 (49.4%)	54,271 (3.4%)
Hamilton	148,678 (51.2%)	141,855 (48.8%)	290,533 (18.0%)
Hancock	30,301 (50.3%)	29,921 (49.7%)	60,222 (3.7%)
Hendricks	55,565 (49.9%)	55,738 (50.1%)	111,303 (6.9%)
Johnson	51,457 (50.0%)	51,457(50.0%)	102,914 (6.4%)
Marion	463,125 (50.8%)	449,005 (49.2%)	912,130 (56.4%)
Morgan	35,654 (50.5%)	34,945 (49.5%)	70,599 (4.4%)
Shelby	6,995 (50.3%)	6,899 (49.7%)	13,894 (0.9%)
Age Groups			
2-5	168,828 (47.5%)	186,683 (52.5%)	355,511 (22.0%)
6-11	253,904 (48.2%)	272,979 (51.8%)	526,883 (32.6%)
12-19	396,506 (54.1%)	336,966 (45.9%)	733,472 (45.4%)
Race/Ethnicity			
Asian	24,006 (49.4%)	24,579 (50.6%)	48,585 (3.0%)
Hispanic	118,788 (50.8%)	115,016 (49.2%)	233,804 (14.5%)
African American	157,937 (50.8%)	152,948 (49.2%)	310,885 (19.2%)
Caucasian	356,940 (50.6%)	349,128 (49.4%)	706,068 (43.7%)
Other/Unknown	161,567 (51.0%)	154,957 (49.0%)	316,524 (19.6%)
Total	**819,238 (50.7%)**	**796,628 (49.3%)**	**1,615,866 (100.0%)**

Obesity among children and adolescents in central Indiana has increased by 6.0% between 2014 and 2024 as seen in **figure 1** below. The largest increase (5.3%) occurred from 2020 to 2021. There are variations by sex as seen in **figures 2** (females) and **3** (males).

Figure 1. Obesity Prevalence among Children and Adolescents 2–19 years of age and by Sex, Central Indiana, 2014–2024 (values are shown for Overall)

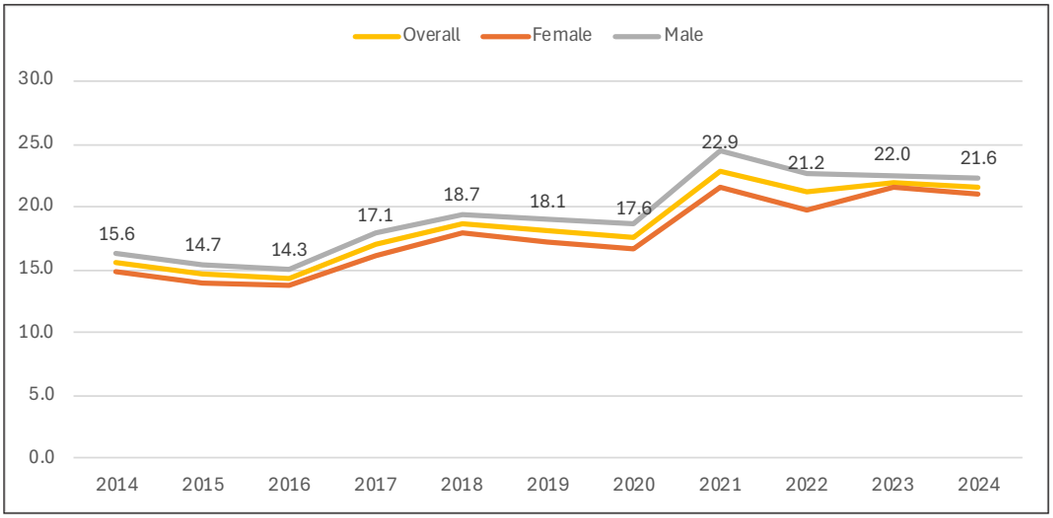


Figure 2. Childhood Obesity Prevalence, Females, Central Indiana, 2014–2024

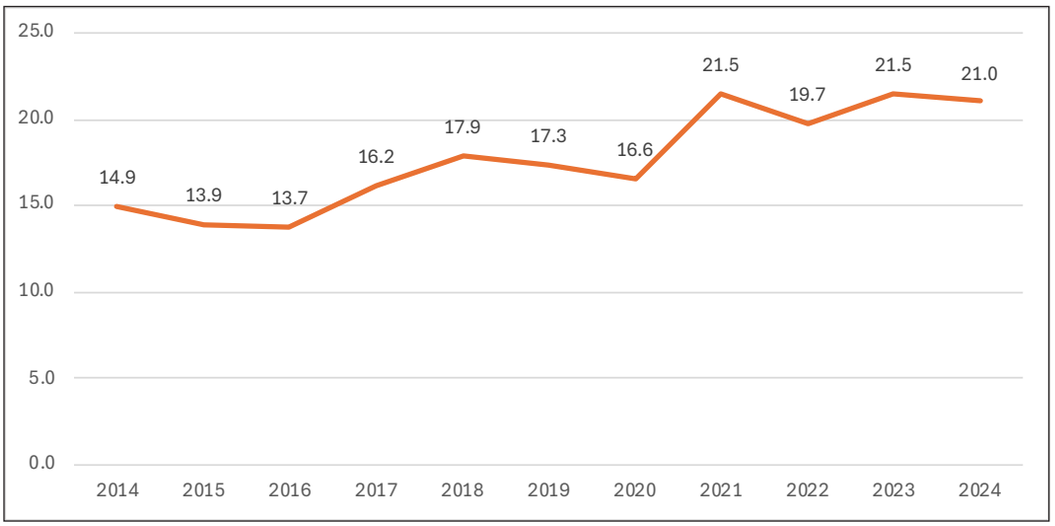
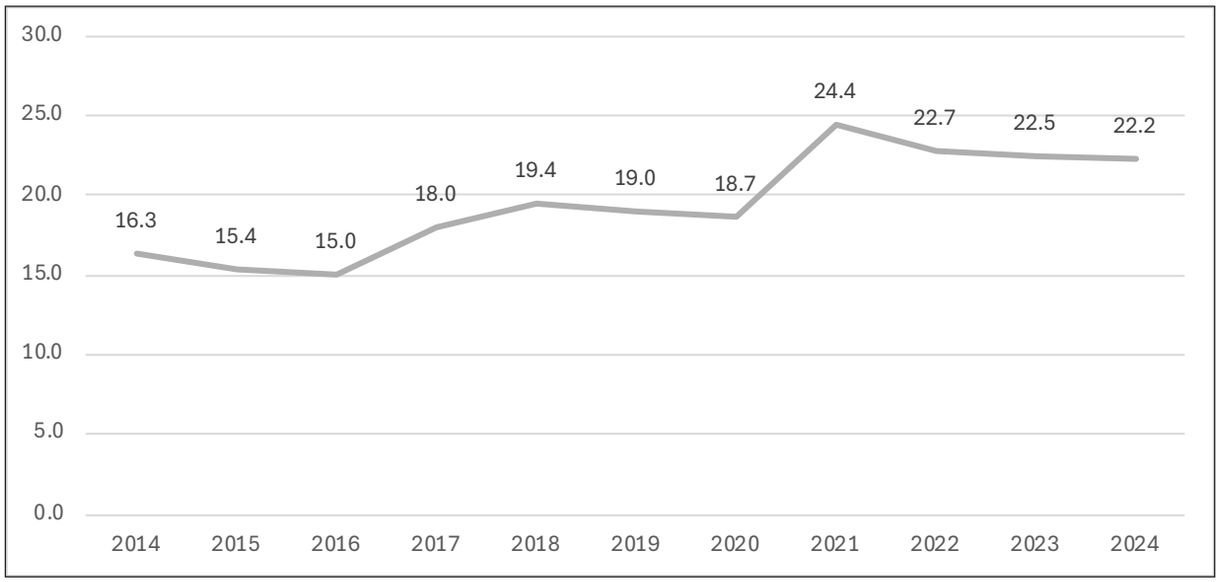


Figure 3. Childhood Obesity Prevalence, Males, Central Indiana, 2014–2024



The absolute increases in obesity prevalence between 2014 and 2024 overall and stratified by sex are seen in **table 2**. All these obesity rates increased in central Indiana. In addition, the relative change in obesity prevalence by sex can be seen in **figure 4** below.

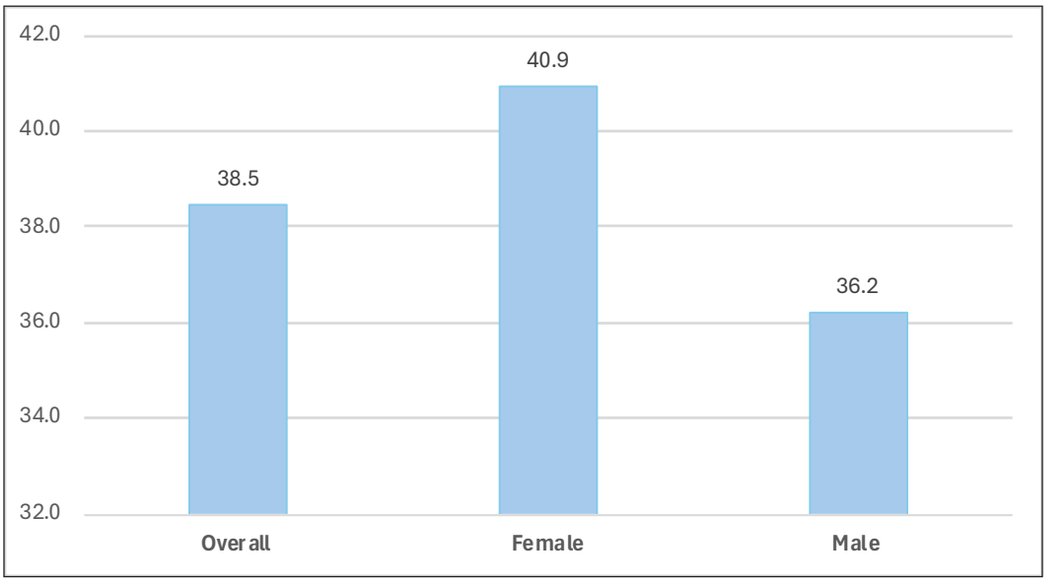
Table 2 Table 2. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 and by Sex, Central Indiana

Population	Change (percentage points)
Overall	6.0 ↑
Females	6.1 ↑
Males	5.9 ↑

↑ = Indicating a rate increase

↓ = Indicating a rate decrease

Figure 4. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by Sex, Central Indiana



Examining trends in all four weight status categories emphasizes in a useful way that when unhealthy weight prevalences increase, the proportion of children and adolescents at a healthy weight decrease. Stratified by sex and year, differing changes in each weight status category can be explained by and reflect an overall trend of increased excess weight among these populations over time. As seen in **figure 5** and **table 3**, among females the percentage at healthy weight declines from 2014 to 2024—including a notable drop starting in 2020—with corresponding increases in the overweight and obesity categories.

Figure 5. Childhood Weight Status Prevalence, Females, Central Indiana, 2014–2024

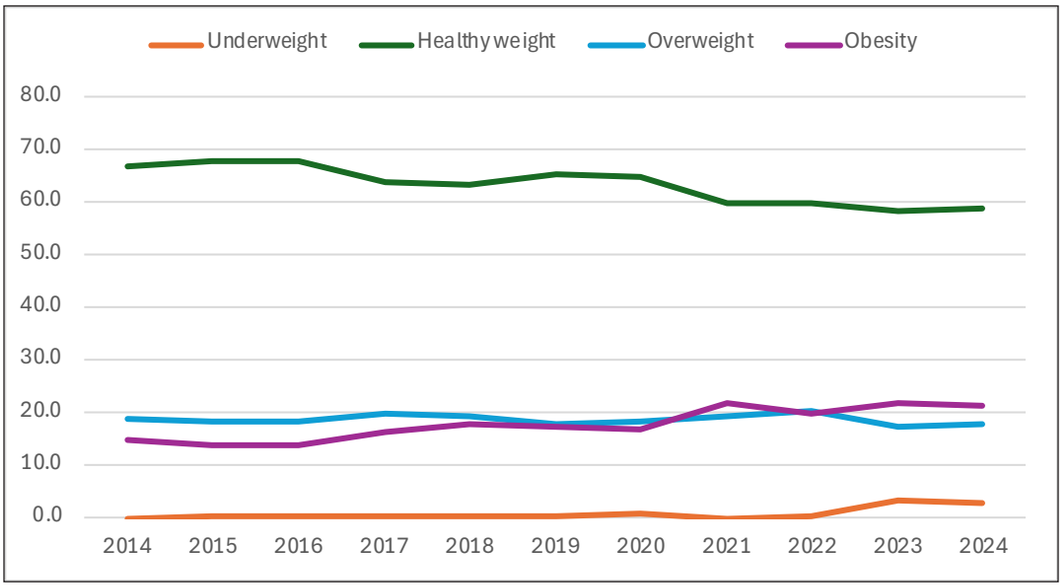
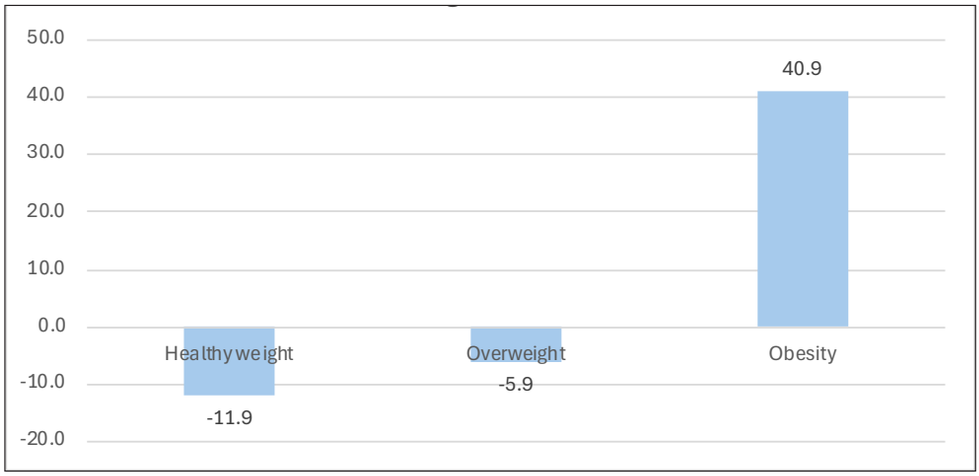


Table 3. Childhood Weight Status Prevalence (%), Females, Central Indiana, 2014–2023

Year	Underweight	Healthy Weight	Overweight	Obesity
2014	0	66.5	18.6	14.9
2015	0.3	67.5	18.3	13.9
2016	0.3	67.6	18.4	13.7
2017	0.5	63.8	19.5	16.2
2018	0.1	62.9	19.1	17.9
2019	0.3	64.8	17.6	17.3
2020	0.7	64.4	18.3	16.6
2021	0	59.5	19	21.5
2022	0.1	59.7	20.4	19.7
2023	3.1	58.2	17.2	21.5
2024	2.9	58.6	17.5	21

Relative change in healthy weight, overweight, and obesity prevalence among females is displayed in **figure 6**. Decreases in the healthy weight and overweight categories can be explained by increases in the obesity category. These changes in percentages are also categorized by the year range of 2014-2024 as well as the pandemic years of 2020-2022. Among females, from 2014 to 2024, the proportion at healthy weight decreased by nearly 8 percentage points, the proportion with overweight decreased by 1.1 percentage points, and the proportion of those living with obesity increased by 6.1 percentage points.

Figure 6. Relative Change in Childhood Weight Status Prevalence between 2014 and 2024, Females, Central Indiana*



*Note: the underweight category was deleted from this figure due to small values

As summarized in **table 4**, prevalence of obesity and of underweight increased, the latter by nearly 3 percentage points. Concurrently, healthy weight prevalence declined by nearly 8 percentage points.

Table 4. Absolute Change in Childhood Weight Status Prevalence between 2014 and 2024, Females, Central Indiana.

Weight Status	Change (percentage points)
Underweight	2.9 ↑
Healthy weight	-7.9 ↓
Overweight	-1.1 ↓
Obese	6.1 ↑

Similarly, among males, **figure 7** illustrates that a decline in prevalence of healthy weight corresponds to a small decrease in overweight prevalence and larger increases in prevalence of underweight and obesity. Among males, there was a 12.5% decrease in healthy weight, a decrease in overweight (6.3%) and an increase in obesity (36%) between 2014 and 2024 as seen in **figure 8**.

Figure 7. Childhood Weight Status Prevalence, Males, Central Indiana, 2014–2024

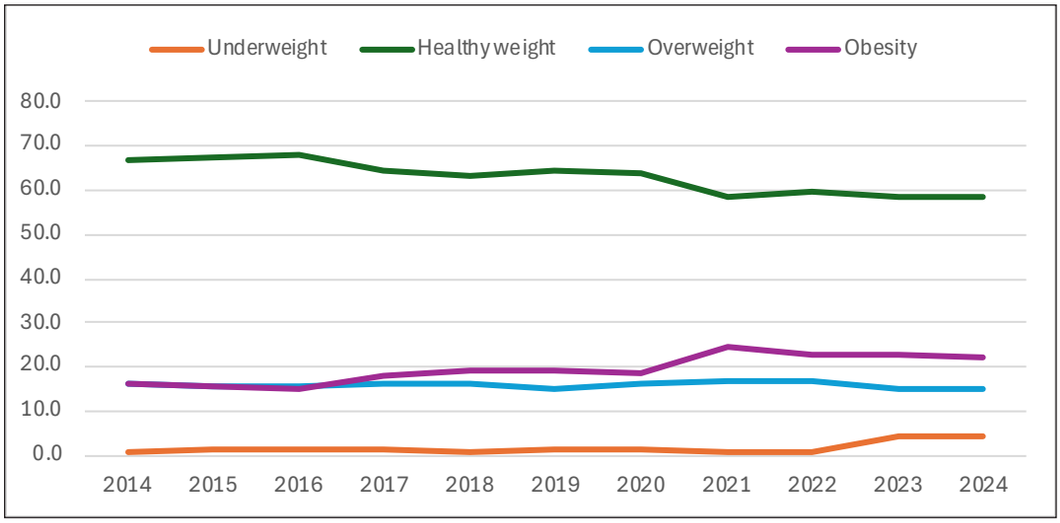
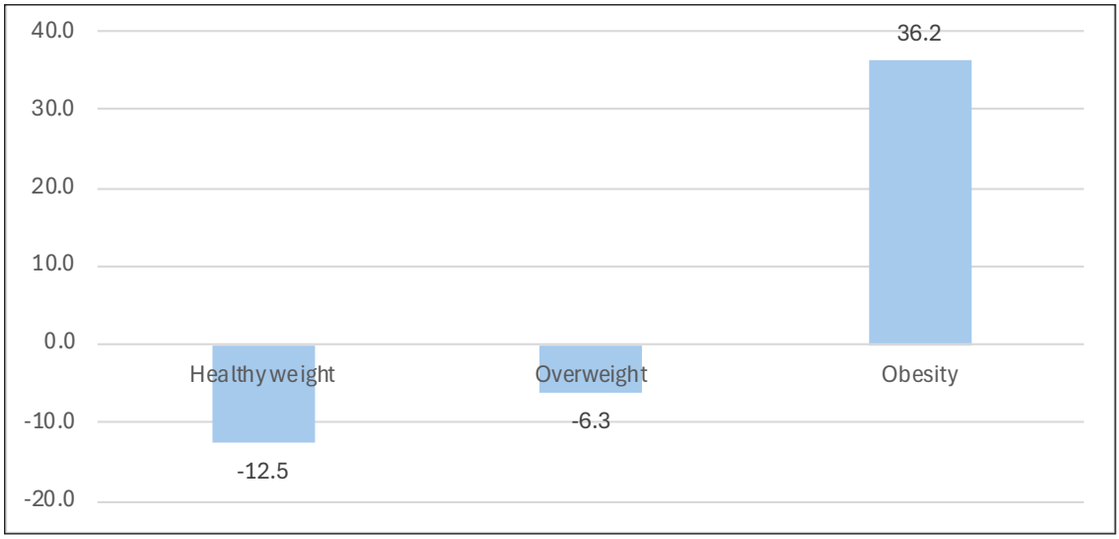


Figure 8. Components of Relative Change in Childhood Weight Status Prevalence between 2014 and 2024, Males, Central Indiana*



*Note: the underweight category was deleted from this figure due to small values

As summarized in **table 4**, prevalence of obesity and of underweight increased, the latter by nearly 3 percentage points. Concurrently, healthy weight prevalence declined by nearly 8 percentage points.

Congruent with trends in the whole study population, the proportion of males with unhealthy weight and with obesity increased while the proportion at healthy weight and with overweight decreased (**table 5**). These decreases can be interpreted as individuals moving into a different weight category. For example, a healthy-weight male may move into underweight, overweight, or even obesity. **Table 6** displays prevalence of each weight status category among males over the period.

Table 5. Absolute Change in Childhood Weight Status Prevalence between 2014 and 2024, Males, Central Indiana

Weight Status	Change (percentage points)
Underweight	3.4 ↑
Healthy weight	-8.4 ↓
Overweight	-1.0 ↓
Obese	5.9 ↑

Table 6 Childhood Weight Status Prevalence (%), Males, Central Indiana, 2014–2024

Year	Underweight	Healthy Weight	Overweight	Obesity
2014	0.7	67	16	16.3
2015	1.2	67.5	15.8	15.4
2016	1.2	68.2	15.7	15
2017	1.5	64.2	16.3	18
2018	0.9	63.2	16.5	19.4
2019	1.2	64.6	15.3	19
2020	1.6	63.7	16	18.7
2021	0.5	58.6	16.6	24.4
2022	0.8	59.6	17	22.7
2023	4.2	58.3	14.9	22.5
2024	4.1	58.6	15	22.2

Obesity prevalence increases over time between 2014 and 2024 among all age groups. The largest increases occurred among those ages 2-5 years. Some of these increases can be explained by normal growth patterns; however, the figures below focus on prevalence of obesity in the three age groups studied. **Figure 9** visualizes that among those 2-5 years of age, obesity prevalence increased 81% from 2014 to 2024. Smaller increases were seen among the other age categories, as seen in **figure 10**.

Figure 9. Childhood Obesity Prevalence by Age Group, Central Indiana, 2014–2024

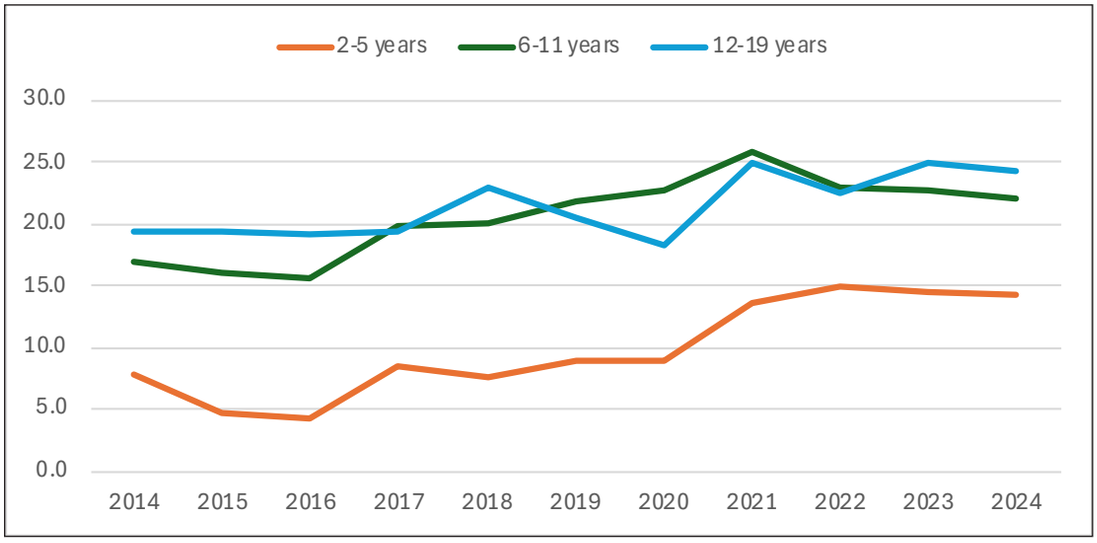


Figure 10. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by Age Group, Central Indiana

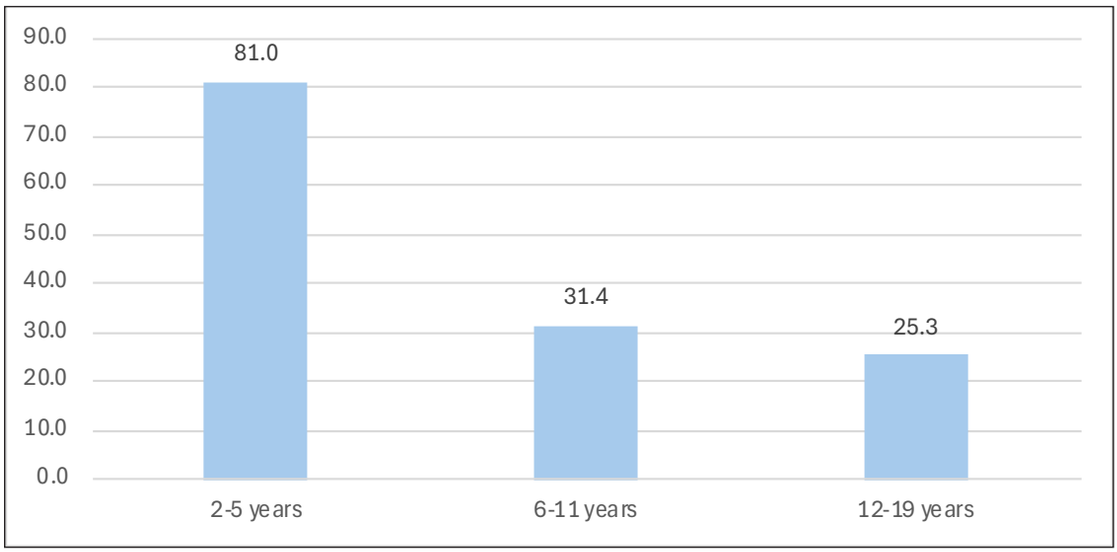


Table 7 displays the absolute change in obesity prevalence among all children and adolescents in the years between 2014 to 2024, stratifying by the three age groups. All three age groups saw increases in obesity percentage. **Table 8** displays obesity prevalence stratified by age group.

Table 7. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by Age Group, Central Indiana

Age group (years)	Change (percentage points)
2–5	6.4 ↑
6–11	5.3 ↑
12–19	4.9 ↑

Table 8. Childhood Obesity Prevalence by Age Group, Central Indiana, 2014–2024

Year	2-5	6-11	12-19
2014	7.9	16.9	19.4
2015	4.7	16.1	19.4
2016	4.3	15.7	19.3
2017	8.5	19.8	19.5
2018	7.7	20	23
2019	8.9	21.8	20.5
2020	9	22.8	18.4
2021	13.7	25.8	24.9
2022	15	23	22.5
2023	14.5	22.8	24.9
2024	14.3	22.2	24.3

Similar obesity trends among the different age groups were observed when stratifying by sex, as seen for females in **figure 11**, where the overall gap between obesity among young children ages 2-5 and compared to older age groups is slowly closing. **Figure 12** demonstrates that among females ages 2-5, there was a 68.8% increase in obesity from 2014 to 2024. Smaller increases were seen in those ages 6-11, with a 31.4% increase. Among females ages 12-19, obesity prevalence increased 25.3% increase between 2014 and 2024.

Figure 11. Childhood Obesity Prevalence by Age Group, Females, Central Indiana, 2014–2024

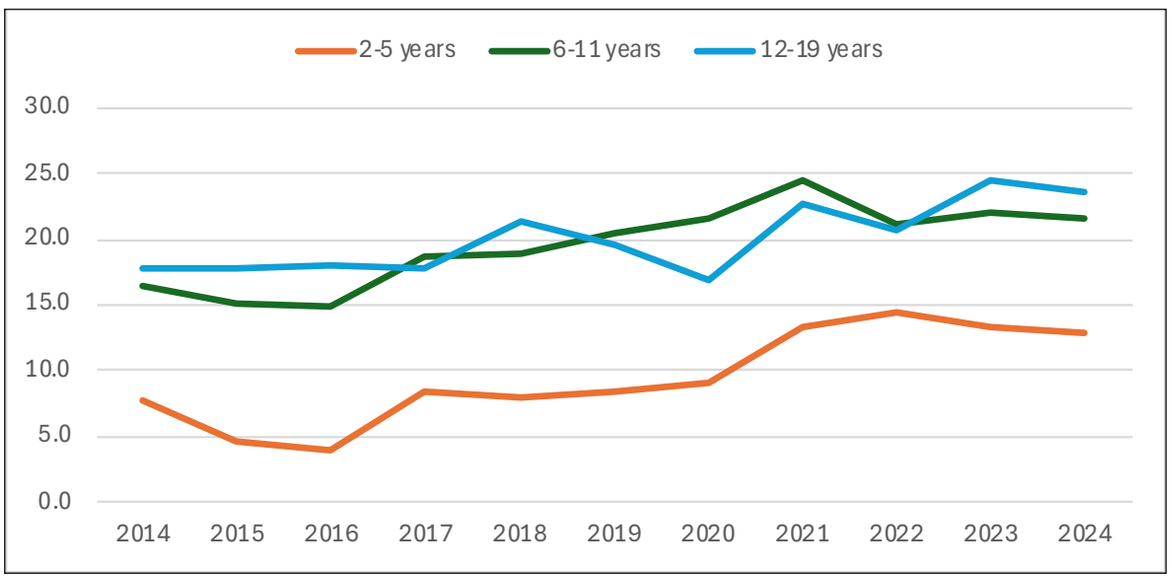


Figure 12. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by Age Group, Females, Central Indiana

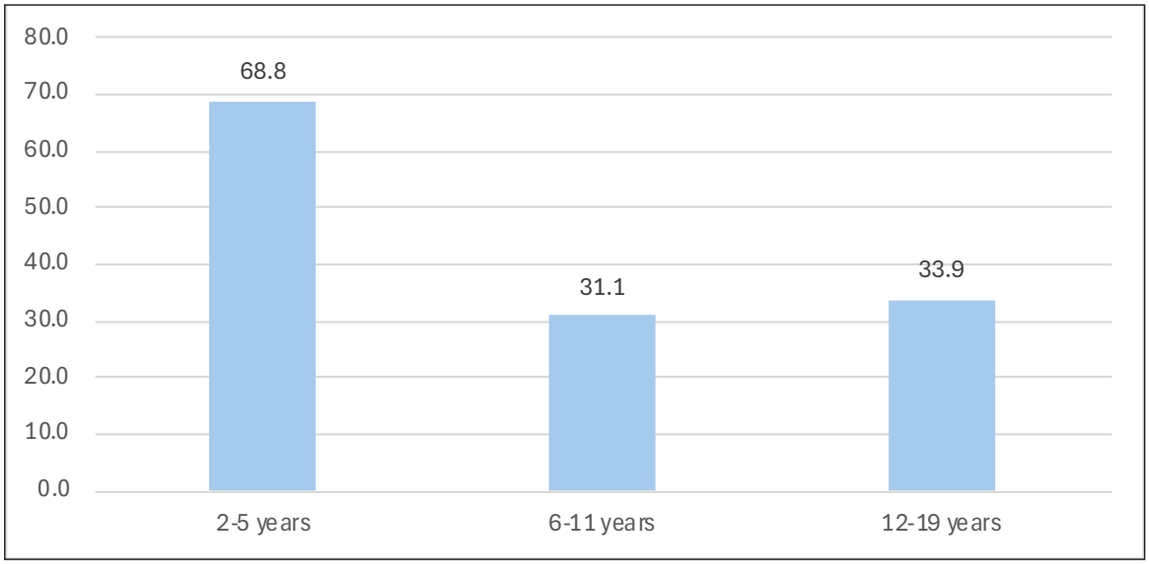


Table 9 displays the absolute change in obesity prevalence among female children and adolescents in the study between 2014 to 2024, stratifying by the three age groups. All three age groups saw increases in obesity prevalence. **Table 10** displays obesity prevalence among females, stratified by age group.

Table 9. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by Age Group, Females, Central Indiana

Age group (years)	Change (percentage points)
2–5	5.3 ↑
6–11	5.1 ↑
12–19	6.0 ↑

Table 10. Childhood Obesity Prevalence by Age Group, Females, Central Indiana, 2014–2024

Year	2-5	6-11	12-19
2014	7.7	16.4	17.7
2015	4.7	15.2	17.7
2016	3.9	14.8	18
2017	8.4	18.6	17.9
2018	8	18.9	21.3
2019	8.4	20.5	19.5
2020	9.1	21.6	16.8
2021	13.3	24.4	22.7
2022	14.4	21.2	20.6
2023	13.4	22	24.5
2024	13	21.5	23.7

Variation by age group is even more pronounced among males (**figure 13**). From 2014 to 2024, obesity prevalence increased 93.8% among males ages 2-5 (**figure 14**). Among males ages 6–11 there was a 35.8% increase and among those ages 12–19 obesity prevalence increased 18.8%.

Figure 13. Childhood Obesity Prevalence by Age Group, Males, Central Indiana, 2014–2024

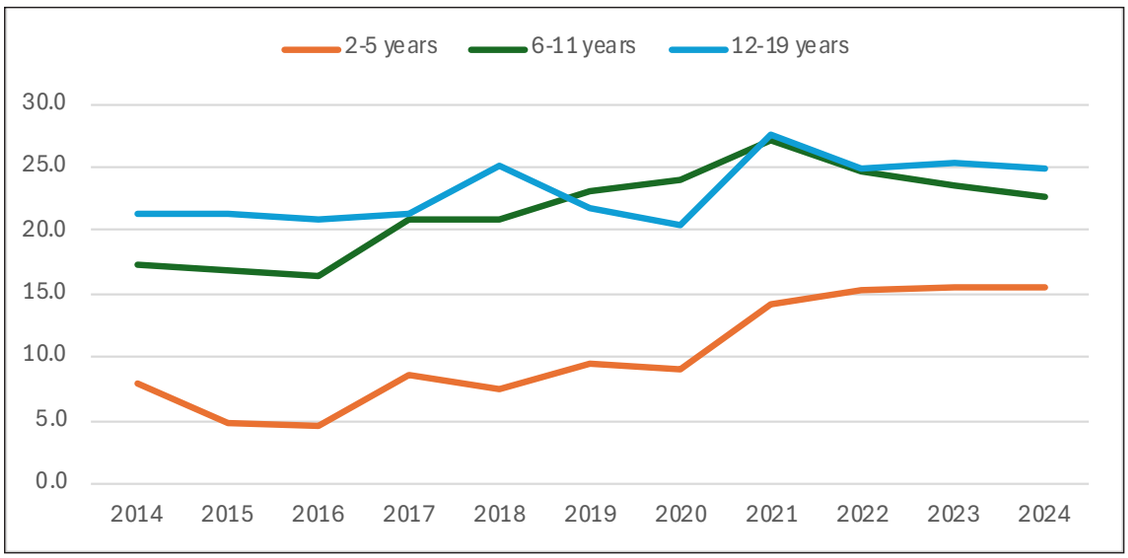


Figure 14. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by Age Group, Males, Central Indiana

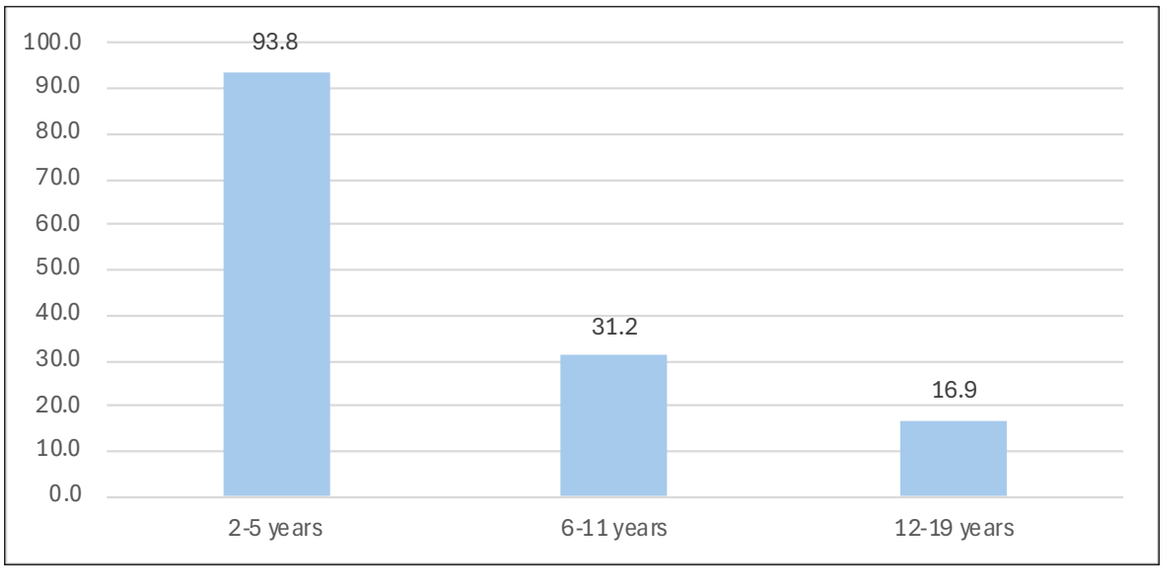


Table 11 displays the absolute change in obesity prevalence among male children and adolescents in the study between 2014 to 2024, stratifying by the three age groups. All three age groups saw increases in obesity prevalence among males. It should be noted that males ages 2–5 increased 7.5 percentage points, the largest shift in any age group of either sex. **Table 12** displays obesity prevalence among males, stratified by age group.

Table 11. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by Age Group, Males, Central Indiana

Age group (years)	Change (percentage points)
2-5	7.5 ↑
6-11	5.4 ↑
12-19	3.6 ↑

Table 12. Childhood Obesity Prevalence by Age Group, Males, Central Indiana, 2014–2024

Year	2-5	6-11	12-19
2014	8	17.3	21.3
2015	4.8	16.9	21.3
2016	4.6	16.5	20.8
2017	8.5	20.8	21.4
2018	7.4	20.9	25.1
2019	9.4	23	21.7
2020	9	24	20.4
2021	14.1	27.1	27.6
2022	15.4	24.6	24.8
2023	15.6	23.5	25.3
2024	15.5	22.7	24.9

Race and ethnicity are predictors for childhood weight status trends, and our results are parallel to U.S. trends in the population. In **figure 15**, obesity is trending upward in all races/ethnicities. The largest increase occurred in the Other/Unknown and African American populations. These increases resulted in an overall 36.9% and 41.7% increase respectively, as seen in **figure 16**.

Figure 15. Childhood Obesity Prevalence by Race/Ethnicity, Central Indiana, 2014–2024

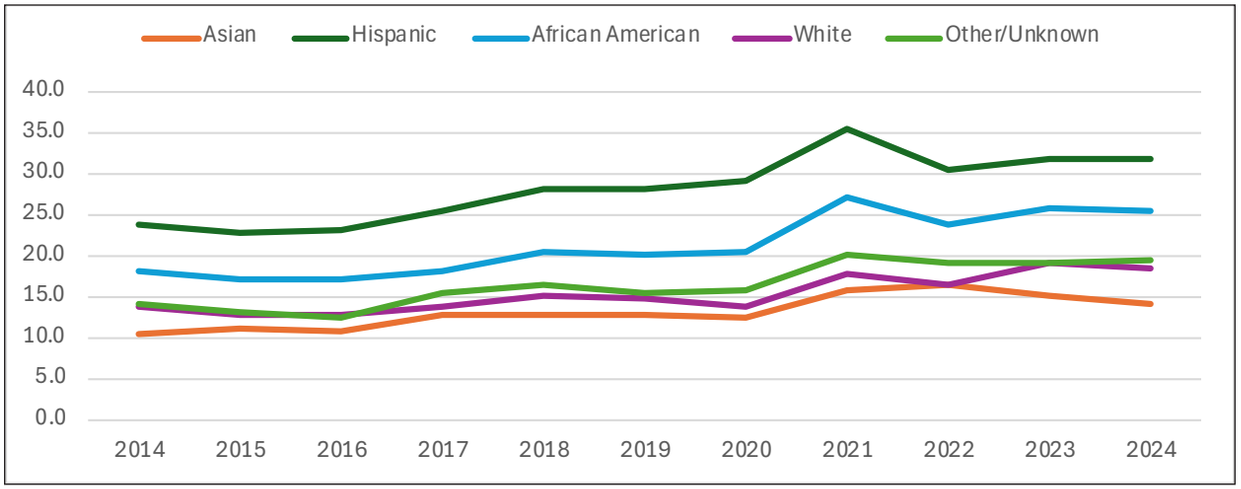
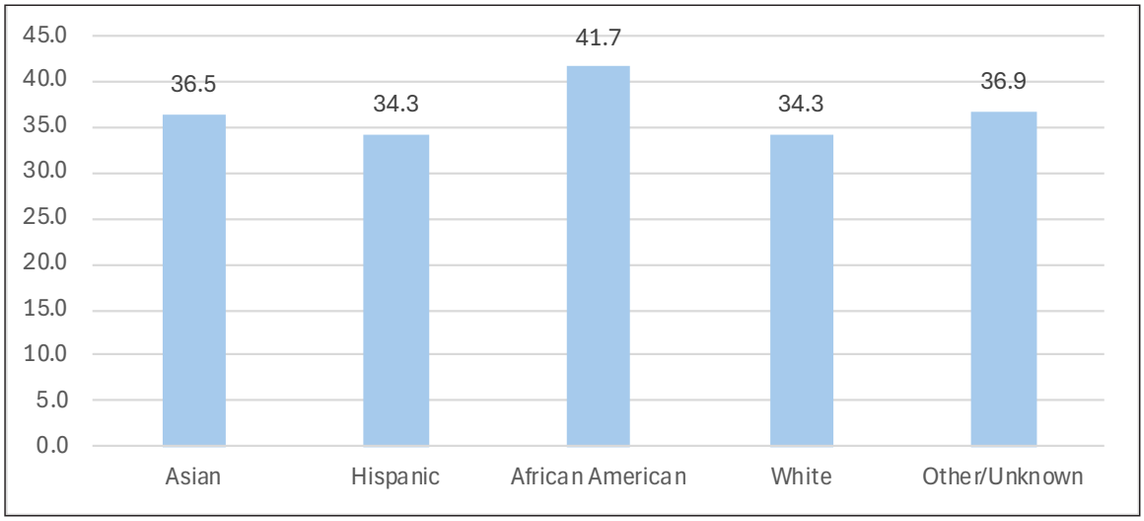


Figure 16. Relative Change in Childhood Obesity Prevalence by Race/Ethnicity between 2014 and 2024, Central Indiana



The absolute change in childhood obesity prevalence in central Indiana can be seen in **table 13** stratifying by race/ethnicity. The largest percentage-point increases occurred in the Hispanic and African American populations: 8.1 and 7.5 respectively. In **table 14**, obesity prevalence is stratified by year and race/ethnicity.

Table 13. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by Race/ Ethnicity, Central Indiana

Population	Change (percentage points)
Asian	3.8 ↑
Hispanic	8.1 ↑
African American	7.5 ↑
White	4.7 ↑
Other/Unknown	5.2 ↑

Table 14. Childhood Obesity Prevalence by Race/Ethnicity, Central Indiana, 2014–2024

Year	Asian	Hispanic	African American	White	Other/ Unknown
2014	10.4	23.6	18	13.7	14.1
2015	11.1	22.6	17.2	12.9	13.2
2016	10.9	23	17.1	12.8	12.4
2017	12.8	25.3	18.2	13.7	15.4
2018	12.7	28.1	20.5	15	16.3
2019	12.6	28	20.2	14.6	15.5
2020	12.3	28.9	20.3	13.8	15.8
2021	15.7	35.3	26.9	17.8	20
2022	16.5	30.5	23.7	16.5	18.9
2023	15.2	31.8	25.8	19.2	19.2
2024	14.2	31.7	25.5	18.4	19.3

In **figures 17** and **18**, among females, we observed that those who identify as Hispanic have the highest rates of obesity between 2014 and 2024, with a 35.3% increase in that time. This is followed by African American females with an increase of 41.4% at the same time. Females that identify as Asian had the smallest increase in obesity prevalence, 12.1% between 2014 and 2024.

Figure 17. Childhood Obesity Prevalence by Race/Ethnicity, Females, Central Indiana, 2014–2024

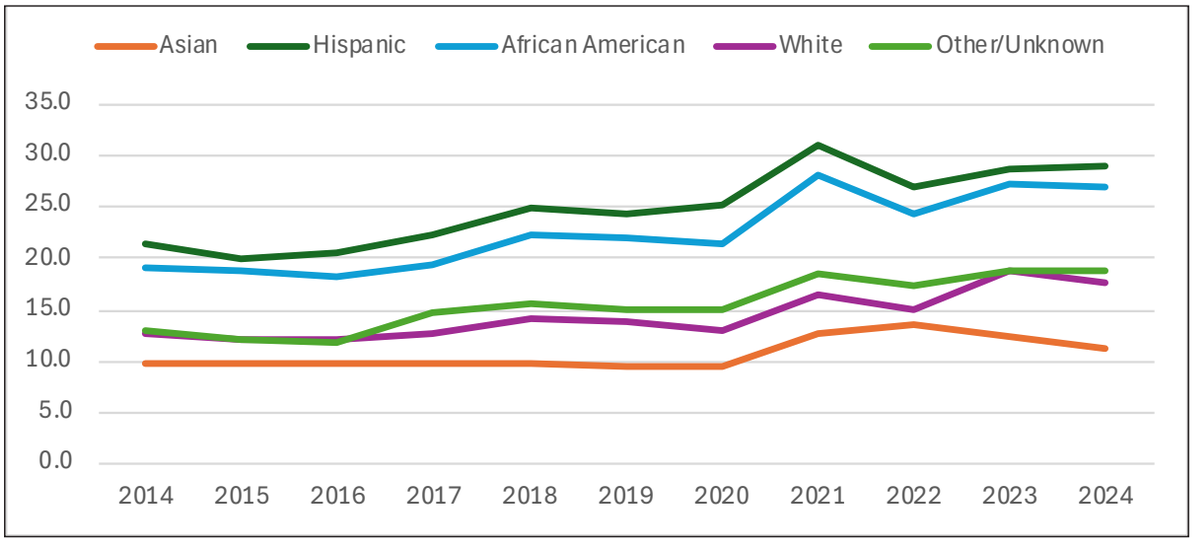


Figure 18. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by Race/ Ethnicity, Females, Central Indiana

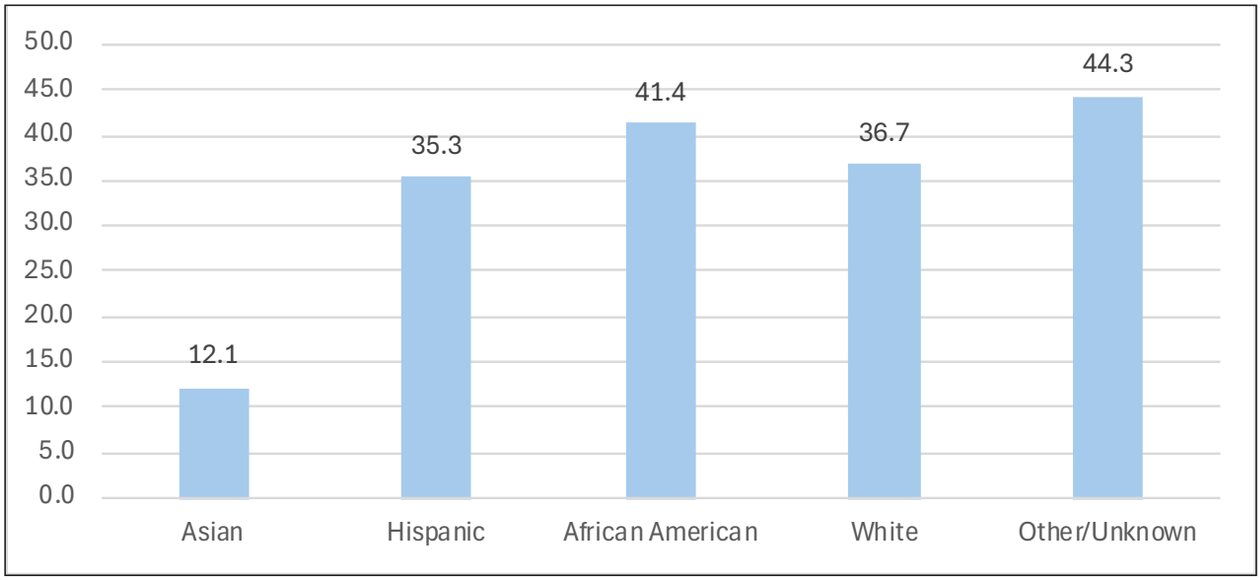


Table 15 displays the absolute increases in obesity prevalence among females, stratifying by race/ethnicity between 2014 and 2024. The overall absolute increase was 6.1 percentage points, with African American female children and adolescents experiencing the largest percentage-point increase (7.9). In **table 16**, obesity prevalence among female children and adolescents is stratified by year and race/

Table 15. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by Race/ Ethnicity, Females, Central Indiana

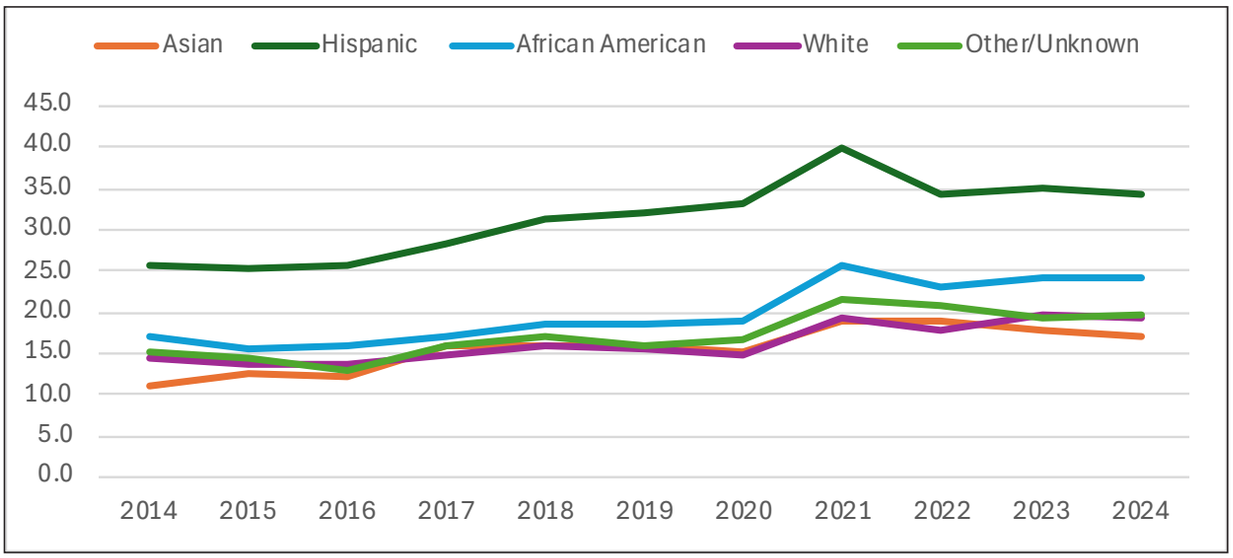
Population	Change (percentage points)
Asian	1.2 ↑
Hispanic	7.6 ↑
African American	7.9 ↑
White	4.7 ↑
Other/Unknown	5.8 ↑

Table 16. Childhood Obesity Prevalence (%) by Race/Ethnicity, Females, Central Indiana, 2014–2024

Year	Asian	Hispanic	African American	White	Other/ Unknown
2014	9.9	21.5	19.1	12.8	13.1
2015	9.9	19.9	18.7	12.1	12
2016	9.9	20.4	18.1	12	11.7
2017	9.8	22.2	19.4	12.6	14.8
2018	9.7	25	22.3	14.1	15.6
2019	9.4	24.4	22	13.7	15
2020	9.6	25.1	21.3	12.9	15.1
2021	12.6	31.1	28.2	16.4	18.4
2022	13.6	26.8	24.3	15.1	17.2
2023	12.3	28.7	27.1	18.7	18.9
2024	11.1	29.1	27	17.5	18.9

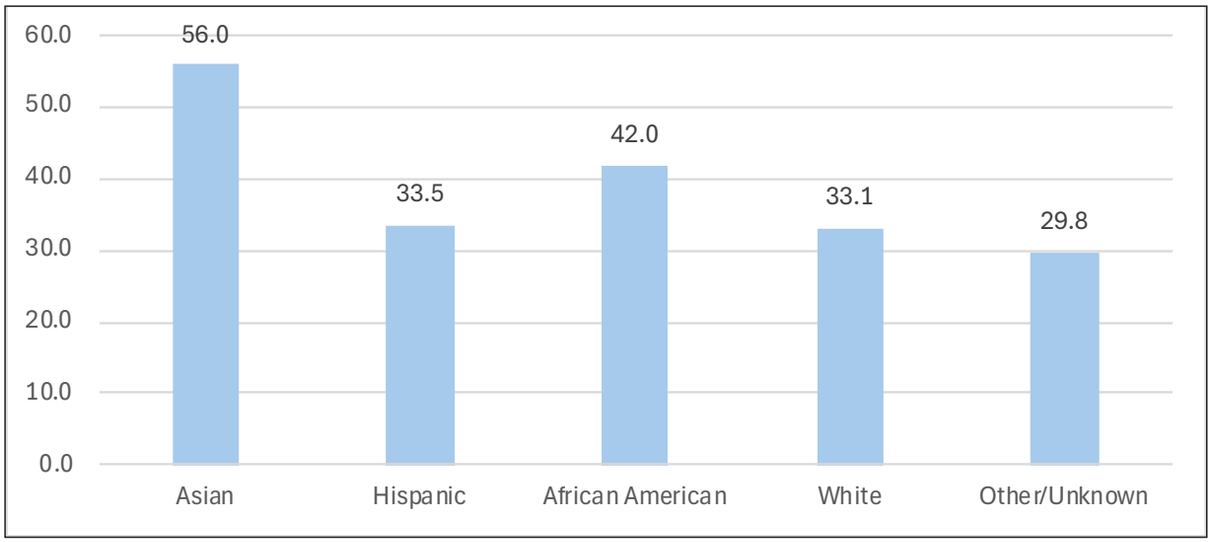
Among male children and adolescents, obesity prevalence is consistently highest among those that identify as Hispanic, as seen in figure 19.

Figure 19. Childhood Obesity Prevalence by Race/Ethnicity, Males, Central Indiana, 2014–2024



Hispanic males experienced a 33.5% overall increase in obesity prevalence between 2014 and 2024 (**figure 20**). However, those that identify as Asian saw the greatest increase in obesity prevalence between 2014 and 2024 (56.0%).

Figure 20. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by Race/ Ethnicity, Males, Central Indiana



The absolute change in childhood obesity prevalence among males in central Indiana can be seen in **table 17**, stratifying by race/ethnicity. The largest percentage-point increases occurred in the Hispanic and African American populations: 8.6 and 7.1 respectively. In **table 18**, obesity prevalence among male children and adolescents is stratified by year and race/ethnicity.

Table 17. Absolute Change in Childhood Obesity Prevalence between 2014 and 2023 by Race/ Ethnicity, Males, Central Indiana

Population	Change (percentage points)
Asian	6.1 ↑
Hispanic	8.6 ↑
African American	7.1 ↑
White	4.8 ↑
Other/Unknown	4.5 ↑

Table 18. Childhood Obesity Prevalence (%) by Race/Ethnicity, Males, Central Indiana, 2014–2024.

Year	Asian	Hispanic	African American	White	Other/ Unknown
2014	10.9	25.7	16.9	14.5	15.1
2015	12.5	25.2	15.6	13.8	14.4
2016	12	25.5	16.1	13.6	13.1
2017	15.8	28.3	16.9	14.8	16
2018	15.9	31.4	18.7	15.9	17
2019	15.9	31.9	18.4	15.4	16
2020	15	33	19.1	14.8	16.5
2021	18.9	39.9	25.5	19.2	21.7
2022	19	34.3	23.1	17.9	20.6
2023	17.8	35	24.3	19.8	19.4
2024	17	34.3	24	19.3	19.6

When stratifying by primary county of residence, there is an overall upward trend, and the effects of the pandemic are evident, as seen in **figure 21**. Boone, Morgan, and Shelby counties experienced the highest overall increases within central Indiana. In **figure 22** the relative change increased the most in Shelby County, by 49.1%.

Figure 21. Childhood Obesity Prevalence by County, Central Indiana, 2014-2024

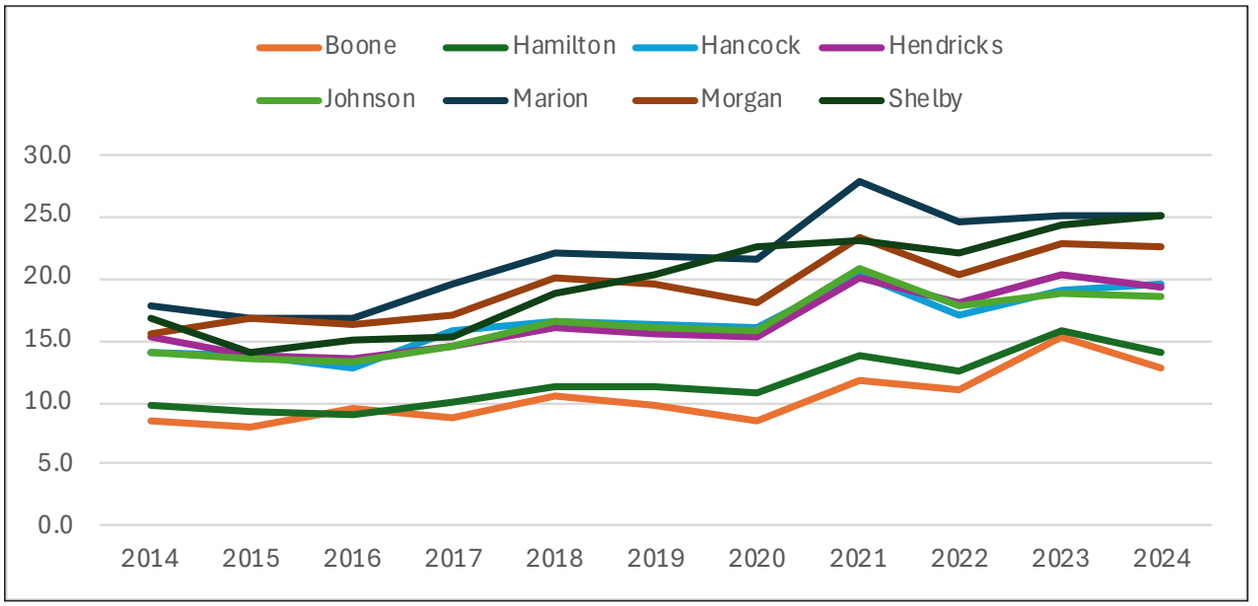
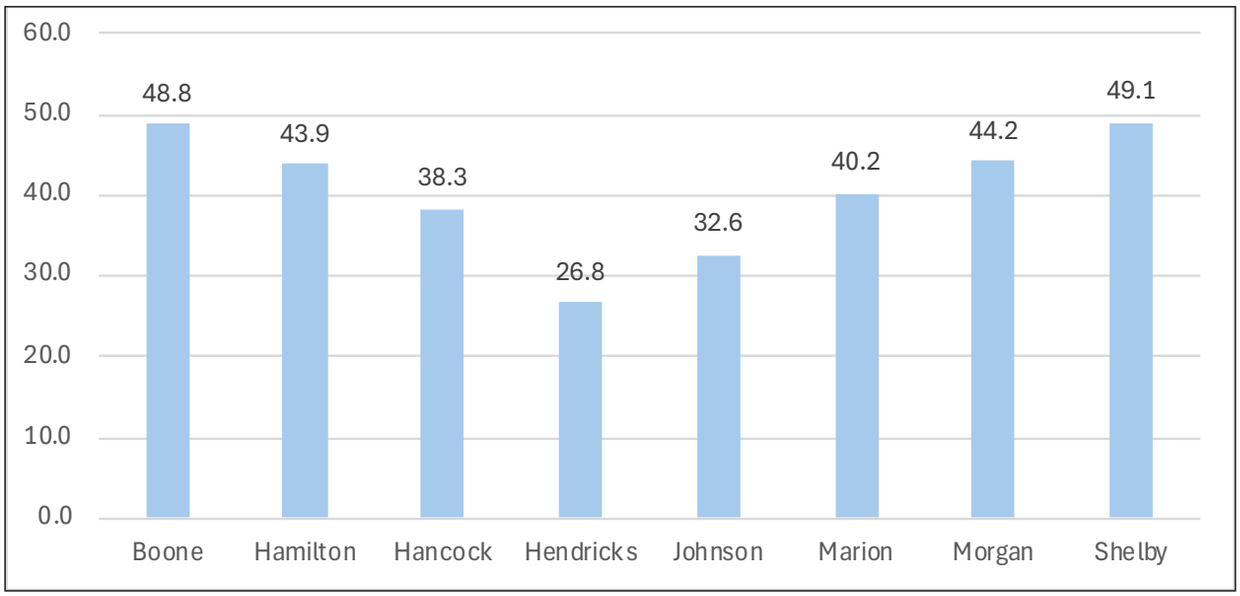


Figure 22. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by County, Central Indiana



There were increases in the absolute change in all the counties assessed, as seen in table 19. Shelby County, which has the largest relative increase (49.1%, figure 21) also saw the highest absolute increase, 8.3 percentage points between 2014 and 2024, followed by Marion and Morgan counties. Hendricks county experienced the smallest absolute increase, 4.1 percentage points between 2014 and 2024. In table 20, childhood obesity prevalence is stratified by county.

Table 19. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by County, Central Indiana

Population	Change (percentage points)
Boone	4.2 ↑
Hamilton	4.3 ↑
Hancock	5.4 ↑
Hendricks	4.1 ↑
Johnson	4.6 ↑
Marion	7.2 ↑
Morgan	6.9 ↑
Shelby	8.3 ↑

Table 20. Childhood Obesity Prevalence by County, Central Indiana, 2014–2024

Year	Boone	Hamilton	Hancock	Hendricks	Johnson	Marion	Morgan	Shelby
2014	8.6	9.8	14.1	15.3	14.1	17.9	15.6	16.9
2015	8.1	9.3	13.7	13.7	13.5	16.8	16.7	14.1
2016	9.4	9.1	12.7	13.5	13.2	16.7	16.3	15
2017	8.8	10.1	15.7	14.5	14.6	19.7	17	15.3
2018	10.5	11.3	16.5	16.1	16.6	22	20	18.9
2019	9.8	11.4	16.4	15.6	16	21.8	19.6	20.4
2020	8.6	10.8	16	15.2	15.9	21.7	18	22.7
2021	11.7	13.8	20.3	20	20.9	27.9	23.5	23
2022	11	12.6	17.1	18.1	17.9	24.6	20.4	22.2
2023	15.2	15.8	19	20.3	18.9	25.2	22.9	24.4
2024	12.8	14.1	19.5	19.4	18.7	25.1	22.5	25.2

When assessing obesity prevalence by sex and county of residence, the anticipated increases can be observed in figures 23 and 24. Among females, Marion County has the highest obesity prevalence in every year except 2020. Marion County saw a 40.9% increase from 2014 to 2024, of which more than 19% occurred between 2020 and 2022. Obesity prevalence among female children and adolescents is consistently lowest in Hamilton and Boone counties, though the relative increase from 2014 to 2024 was highest in these counties, 54.1% and 53.8% respectively.

Figure 23. Childhood Obesity Prevalence by County, Females, Central Indiana, 2014–2024

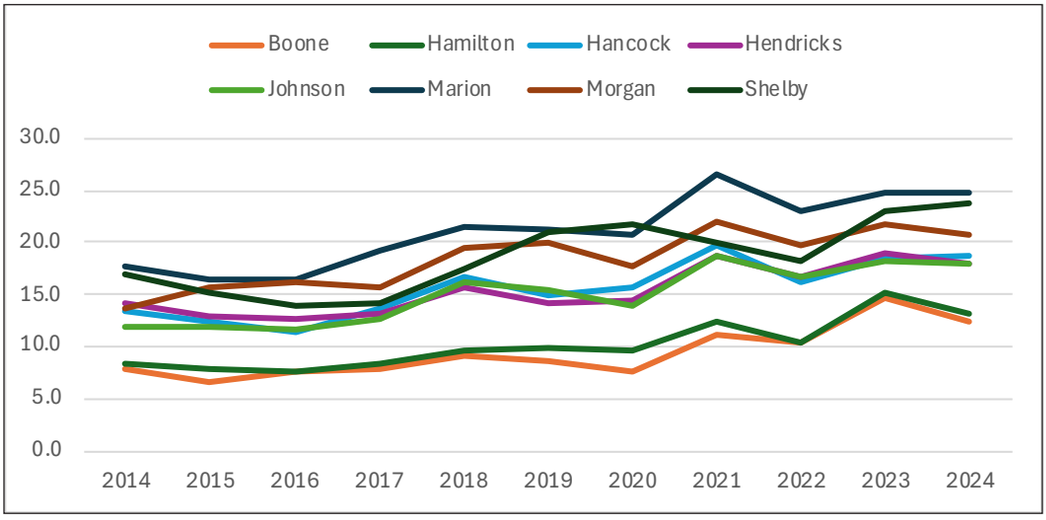
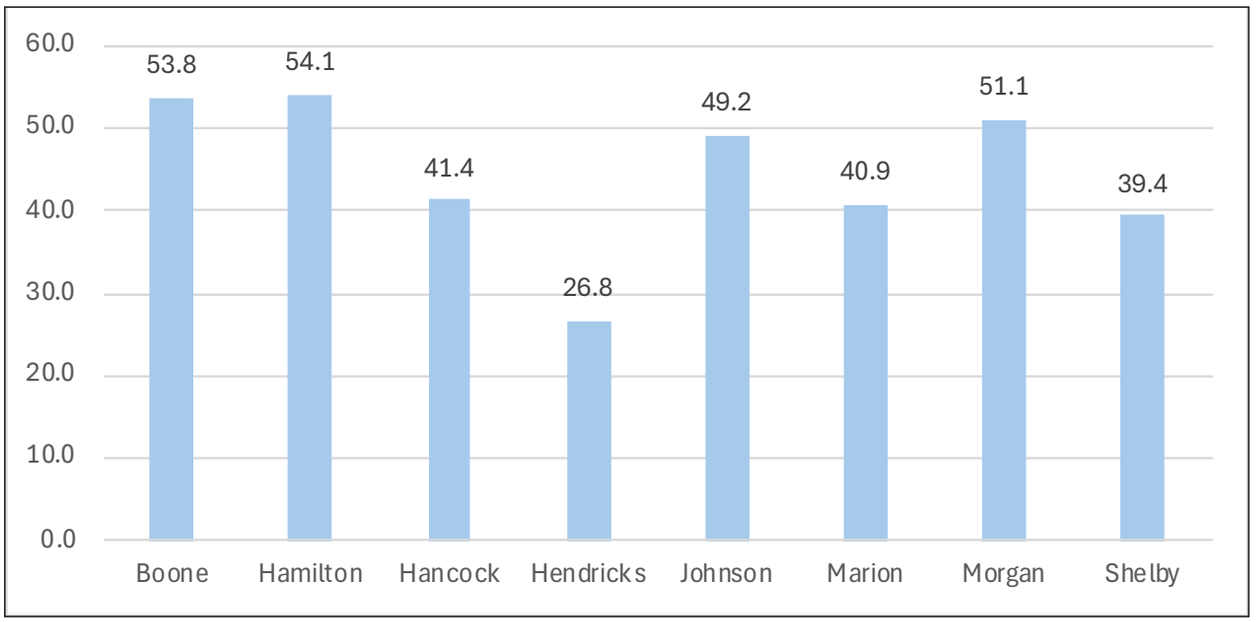


Figure 24. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by County, Females, Central Indiana



When stratifying the female population by county of residence, **table 21** shows absolute increases in obesity prevalence in all 8 counties from 2014 to 2024, with an overall increase of 6.1%. Marion county females experienced the largest percentage-point increase (7.2) during that time period. In **table 22**, childhood obesity prevalence among females is stratified by county.

Table 21. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by County, Females, Central Indiana

Population	Change (percentage points)
Boone	4.3 ↑
Hamilton	4.6 ↑
Hancock	5.5 ↑
Hendricks	3.8 ↑
Johnson	5.9 ↑
Marion	7.2 ↑
Morgan	7.0 ↑
Shelby	6.7 ↑

Table 22: Childhood Obesity Prevalence (%) by County, Females, Central Indiana, 2014–2024

Year	Boone	Hamilton	Hancock	Hendricks	Johnson	Marion	Morgan	Shelby
2014	8	8.5	13.3	14.2	12	17.6	13.7	17
2015	6.5	7.9	12.4	13	12	16.4	15.7	15.1
2016	7.5	7.7	11.5	12.6	11.6	16.5	16.2	14
2017	7.8	8.4	13.6	13.1	12.6	19.1	15.6	14.2
2018	9.2	9.7	16.6	15.7	16.1	21.6	19.4	17.5
2019	8.7	9.9	15	14.3	15.4	21.2	19.9	21
2020	7.7	9.7	15.7	14.5	13.8	20.7	17.7	21.7
2021	11.1	12.3	19.6	18.8	18.7	26.6	21.9	20
2022	10.3	10.5	16.3	16.6	16.7	23.1	19.7	18.3
2023	14.6	15.2	18.5	19	18.2	24.8	21.7	23
2024	12.3	13.1	18.8	18	17.9	24.8	20.7	23.7

When assessing the male population by county of residence, Marion and Shelby County males typically have the highest rates of obesity between 2014 and 2024 as seen in **figure 25**. Shelby County male obesity prevalence increased by nearly 59% between 2014 and 2024, which can be seen in **figure 26**.

Figure 25. Childhood Obesity Prevalence by County, Males, Central Indiana, 2014–2024

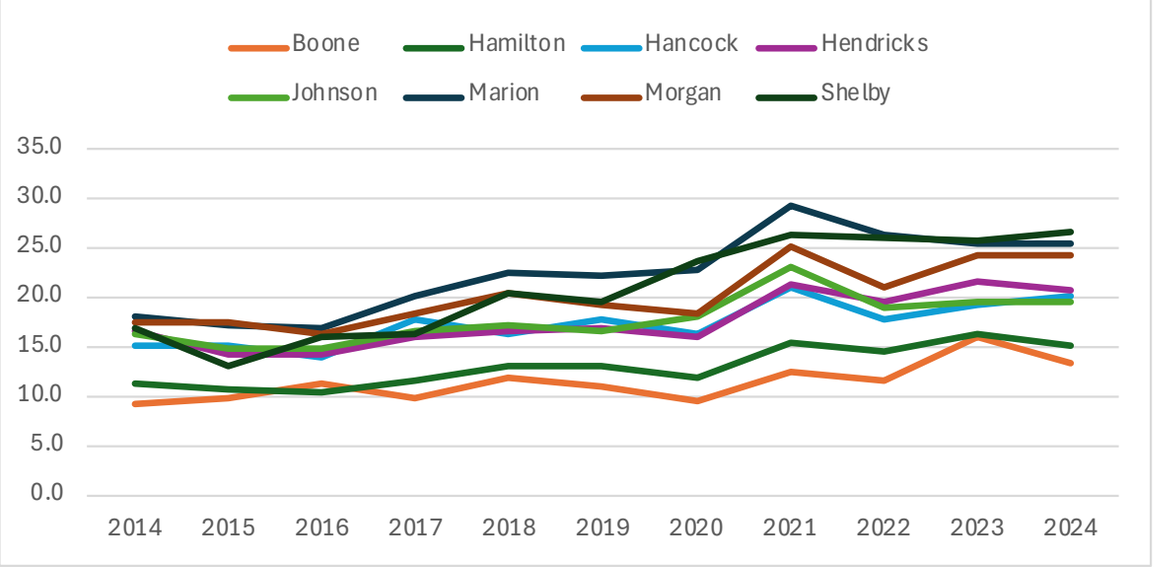
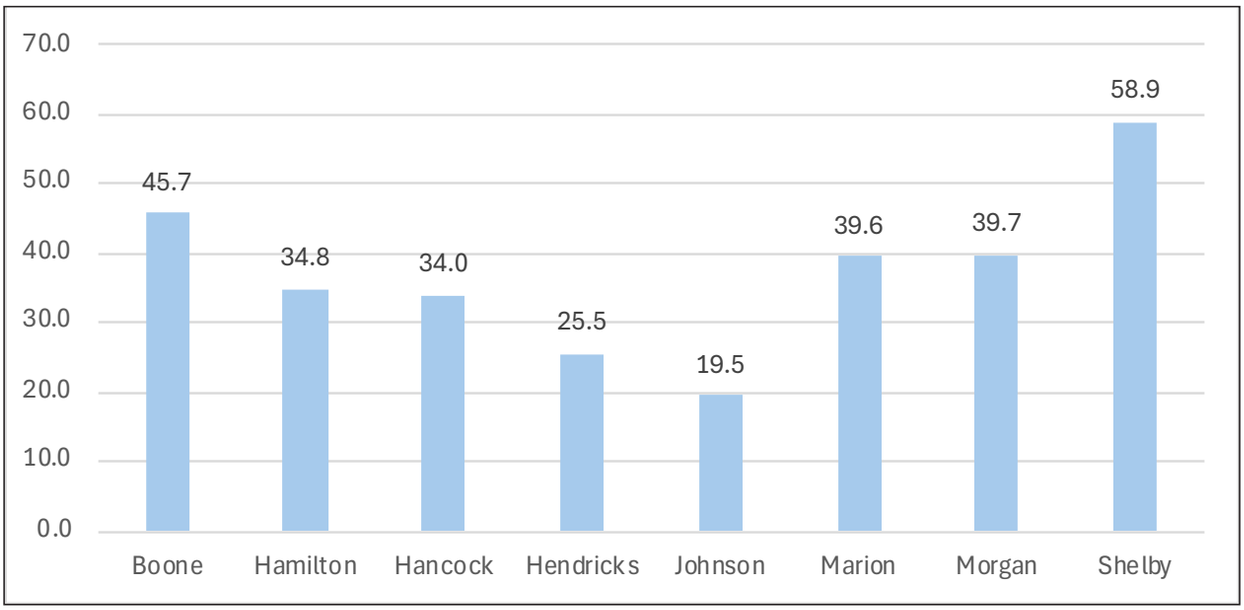


Figure 26. Relative Change in Childhood Obesity Prevalence between 2014 and 2024 by County, Males, Central Indiana



Shelby County also saw the largest absolute increase (9.9) of any central Indiana county over this time period (**table 23**). In **table 24**, childhood obesity prevalence among males is stratified by county.

Table 23. Absolute Change in Childhood Obesity Prevalence between 2014 and 2024 by County, Males, Central Indiana

Population	Change (percentage points)
Boone	4.2 ↑
Hamilton	3.9 ↑
Hancock	5.1 ↑
Hendricks	4.2 ↑
Johnson	3.2 ↑
Marion	7.2 ↑
Morgan	6.9 ↑
Shelby	9.9 ↑

Table 24. Childhood Obesity Prevalence (%) by County, Males, Central Indiana, 2014–2024

Year	Boone	Hamilton	Hancock	Hendricks	Johnson	Marion	Morgan	Shelby
2014	9.2	11.2	15	16.5	16.4	18.2	17.4	16.8
2015	9.9	10.6	15	14.4	14.9	17.3	17.6	13.1
2016	11.2	10.5	13.9	14.4	14.9	16.9	16.4	16
2017	9.9	11.7	17.7	15.9	16.5	20.2	18.4	16.4
2018	11.9	13.1	16.4	16.5	17.1	22.5	20.5	20.3
2019	11	13.1	17.8	16.8	16.7	22.3	19.2	19.7
2020	9.5	12	16.2	16	18	22.8	18.3	23.6
2021	12.4	15.4	21	21.2	23	29.3	25.2	26.3
2022	11.7	14.6	17.8	19.6	19.1	26.2	21.1	26
2023	15.9	16.4	19.4	21.5	19.5	25.5	24.2	25.8
2024	13.4	15.1	20.1	20.7	19.6	25.4	24.3	26.7

Discussion

The data presented in this report underscores the alarming rise in childhood obesity rates in central Indiana over the past decade. Several factors could contribute to this trend, including socioeconomic disparities, access to healthy food options, and levels of physical activity among children and adolescents.

Impact of the COVID-19 Pandemic: The sharp rise in obesity rates between 2020 and 2021 coincides with the COVID-19 pandemic, which disrupted daily routines, reduced physical activity, and increased reliance on unhealthy food options. The pandemic led to economic hardship, school closures, and limited access to physical activities, exacerbating existing disparities in obesity rates. Children with obesity were at higher risk for severe COVID-19 illness, which further highlights the importance of addressing obesity as a critical public health issue.

Sex Differences: The slightly higher increase in obesity rates among females compared to males suggests potential differences in lifestyle, dietary habits, and physical activity levels. Further research is needed to understand these disparities and develop gender-specific interventions.

Age Group Trends: The significant increase in obesity among the youngest age group (2-5 years) is particularly concerning. Early childhood is a critical period for establishing healthy habits, and the data indicates that more efforts are needed to promote healthy eating and physical activity from a young age.

Race/Ethnicity Variations: The higher increases in obesity rates among Hispanic and African American populations reflect broader national trends and highlight the impact of social determinants of health. These communities may face greater barriers to accessing healthy foods and safe spaces for physical activity, necessitating culturally sensitive and community-specific strategies.

County-Specific Trends: The variation in obesity prevalence across different counties suggests that local factors, such as community resources, socioeconomic status, and public health initiatives, play a significant role. Counties with higher increases may benefit from targeted public health campaigns and improved access to health services.

Recommendations

To combat the rising trend of childhood obesity, the following actions are recommended:

Enhanced Public Health Campaigns

- Targeted Messaging: Approximately 1 in 5 U.S. children and adolescents have obesity (1). Effective public health campaigns can significantly impact these numbers by promoting healthy behaviors.

- Educational Workshops: Studies show that educational interventions can reduce obesity rates by up to 10% (2).

- Collaborations: Community-based programs have been shown to reduce obesity prevalence by 5-10% (3).

School-Based Interventions

- Comprehensive Programs: School-based interventions can reduce the prevalence of obesity among children by 8-12% (4).

- Health Mentors: Schools that implement health mentor programs see a 15% increase in students' physical activity levels (5).

- Enhanced Physical Education: Increasing physical education classes can lead to a 10% reduction in obesity rates among students (4).

Community Engagement

- Community Gardens: Access to community gardens can increase fruit and vegetable consumption by 20% (6).

- Safe Spaces for Exercise: Improving local parks and recreational facilities can increase physical activity levels by 25% (7).

- Local Partnerships: Community-based interventions can reduce obesity rates by 5-10% 3.

Policy Changes

- Nutrition Standards: Policies that improve school nutrition standards can reduce obesity rates by 10-15% (8).

- Access to Healthy Foods: Initiatives that increase access to healthy foods can reduce obesity prevalence by 5-10% (7).

- Active Transportation: Policies promoting active transportation can increase physical activity levels by 20% (7).

Conclusion

The report underscores the critical need for a multifaceted approach to combat childhood obesity in Central Indiana. By enhancing public health campaigns, implementing school-based interventions, engaging the community, and advocating for policy changes, we can create a healthier environment for adolescents and teens.

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