Kim MJ, et al. • The impacts of COVID-19 on childhood obesity https://doi.org/10.6065/apem.2346094.047 Ann Pediatr Endocrinol Metab 2024;29:page-

Supplementary Table 4. Adjusted linear regression of waist circumference between children and parents

| Variable | 2016-2019 |  |  | 2020-2021 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | $P$-value | R square | Estimate | $P$-value | R square |
| Total |  |  | 0.260 |  |  | 0.261 |
| WC of father | 0.214 | <0.001 |  | 0.242 | $<0.001$ |  |
| WC of mother | 0.268 | <0.001 |  | 0.287 | <0.001 |  |
| Age group (yr) |  |  |  |  |  |  |
| Elementary (10-12) | -7.566 | $<0.001$ |  | -6.471 | $<0.001$ |  |
| Middle school (13-15) | -2.862 | <0.001 |  | -2.918 | 0.027 |  |
| High school (16-18) | Reference |  |  |  |  |  |
| Sex |  |  |  |  |  |  |
| Male | 5.646 | $<0.001$ |  | 8.121 | $<0.001$ |  |
| Female | Reference |  |  |  |  |  |
| Household income |  |  |  |  |  |  |
| Low | 1.272 | 0.317 |  | -1.452 | 0.664 |  |
| Low-middle | -0.483 | 0.483 |  | 2.524 | 0.122 |  |
| Middle-high | 0.505 | 0.392 |  | -1.176 | 0.253 |  |
| High | Reference |  |  |  |  |  |

Model: WC of child $=\beta 1 \times W C$ of father $+\beta 2 \times$ WC of mother + age group + sex + household income (adjusted for sex, age, and household income); WC, waist circumference; $\beta 1, W C$ of Father; $\beta 2, W C$ of mother.

Supplementary Table 5. Proportion of children's BMI $\geq 85$ th percentile among parents with obesity*

| Age group (yr) | BMI of mother $\geq 25 \mathrm{~kg} / \mathrm{m}^{2}$ |  |  | BMI of father $\geq 25 \mathrm{~kg} / \mathrm{m}^{2}$ |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2016-2019$ | $2020-2021$ | $P$-value | $2016-2019$ | $2020-2021$ | $P$-value |
| $10-12$ | $31.5 \%$ | $45 \%$ | 0.019 | $24.7 \%$ | $37.2 \%$ | 0.012 |
| $13-15$ | $32.0 \%$ | $41.2 \%$ | 0.198 | $27.1 \%$ | $24.5 \%$ | 0.634 |
| $16-18$ | $36.6 \%$ | $38.2 \%$ | 0.801 | $33.5 \%$ | $31.5 \%$ | 0.747 |
| $10-18$ | $33.7 \%$ | $41.5 \%$ | 0.062 | $28.8 \%$ | $31.2 \%$ | 0.491 |

BMI, body mass index.
*In this table, parental obesity was defined as $\mathrm{BMI} \geq 25 \mathrm{~kg} / \mathrm{m}^{2}$.

Supplementary Table 6. Adjusted linear regression of body mass index between children and parents

| Variable | 2016-2019 |  |  | 2020-2021 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | $P$-value | R square | Estimate | $P$-value | R square |
| Total |  |  | 0.224 |  |  | 0.220 |
| BMI of father | 0.249 | <0.001 |  | 0.285 | $<0.001$ |  |
| BMI of mother | 0.311 | <0.001 |  | 0.326 | <0.001 |  |
| Age group (years old) |  |  |  |  |  |  |
| Elementary (10-12) | -2.743 | <0.001 |  | -2.361 | $<0.001$ |  |
| Middle school (13-15) | -1.082 | <0.001 |  | -1.359 | 0.01 |  |
| High school (16-18) | reference |  |  |  |  |  |
| Sex |  |  |  |  |  |  |
| Male | 0.818 | <0.001 |  | 5.19 |  |  |
| Female | reference |  |  |  |  |  |
| Household income |  |  |  |  |  |  |
| Low | 0.438 | 0.449 |  | -1.14 | 0.292 |  |
| Low-middle | -0.296 | 0.26 |  | 0.854 | 0.176 |  |
| Middle-high | 0.046 | 0.842 |  | -0.499 | 0.199 |  |
| High | reference |  |  |  |  |  |

Model: BMI of child $=\beta 3 \times \mathrm{BMI}$ of father $+\beta 4 \times \mathrm{BMI}$ of mother + age group + sex + household income (adjusted for sex, age, and household income); BMI, body mass index; $\beta 3$, BMI of Father; $\beta 4, \mathrm{BMI}$ of mother

