Supplementary Table 1 Adjusted Multinomial logistic regression for association between parental iCVH factors and the prevalence of offspring overweight and obesity

| Parental iCVH factors | Overweight          | Obesity            |
|-----------------------|---------------------|--------------------|
|                       | RRR (95% CI)        | P value            | RRR (95% CI)        | P value            |
| **Father-offspring pairs** |                    |                    | **Father-offspring pairs** |                    |                    |
| Ideal Dietary behaviors | 0.98(0.63,1.54)    | 0.939              | 1.16(0.62,2.18)    | 0.633              |
| Ideal BMI status       | 0.53(0.46,0.61)    | <0.001             | 0.34(0.27,0.42)    | <0.001             |
| Ideal Current smoking  | 0.82(0.72,0.95)    | 0.006              | 0.65(0.53,0.81)    | <0.001             |
| Ideal Physical activity| 0.91(0.79,1.05)    | 0.201              | 0.91(0.73,1.13)    | 0.401              |
| Ideal Hypertension     | 0.70(0.52,0.94)    | 0.019              | 0.54(0.36,0.82)    | 0.003              |
| Ideal Diabetes mellitus| 0.49(0.30,0.80)    | 0.004              | 0.60(0.28,1.30)    | 0.195              |
| iCVH scores            |                     |                    |                    |                    |
| 1-3                   | 0.73(0.68,0.79)    | <0.001             | 0.59(0.53,0.67)    | <0.001             |
| 4                     | 0.70(0.57,0.86)    | 0.001              | 0.55(0.42,0.72)    | <0.001             |
| 5                     | 0.53(0.44,0.66)    | <0.001             | 0.34(0.25,0.46)    | <0.001             |
| 6                     | 0.37(0.28,0.49)    | <0.001             | 0.20(0.12,0.32)    | <0.001             |
| **Mother-offspring pairs** |                    |                    | **Mother-offspring pairs** |                    |                    |
| Ideal Dietary behaviors | 1.05(0.81,1.34)    | 0.726              | 1.27(0.91,1.76)    | 0.158              |
| Ideal BMI status       | 0.56(0.49,0.63)    | <0.001             | 0.37(0.31,0.44)    | <0.001             |
| Ideal Current smoking  | 1.04(0.63,1.72)    | 0.876              | 0.65(0.36,1.19)    | 0.162              |
| Ideal Physical activity| 0.86(0.78,0.94)    | 0.002              | 0.83(0.73,0.95)    | 0.009              |
| Ideal Hypertension     | 0.68(0.50,0.93)    | 0.015              | 0.58(0.38,0.87)    | 0.009              |
| Ideal Diabetes mellitus| 0.67(0.40,1.13)    | 0.132              | 0.51(0.26,0.99)    | 0.047              |
| iCVH scores            | 0.76(0.71,0.82)    | <0.001             | 0.63(0.57,0.69)    | <0.001             |
| 1-3                   | 0.78(0.51,1.19)    | 0.243              | 0.99(0.55,1.78)    | 0.967              |
| 4                     | 0.56(0.37,0.85)    | 0.006              | 0.56(0.31,0.99)    | 0.046              |
| 6                     | 0.44(0.29,0.67)    | <0.001             | 0.36(0.20,0.64)    | 0.001              |

BMI: body mass index, iCVH: ideal cardiovascular health. Ideal dietary behavior was defined as ideal diet score ≥3 components (Fruits: ≥3 servings per day; Vegetables: ≥4 servings per day; Meat and its products: ≤3 servings per week; Sugar-sweetened beverages: ≤4 servings per week), ideal BMI status was defined as BMI <25 kg/m², ideal current smoking status was defined as never smoke, ideal physical activity was defined as ≥150 min/week moderate intensity or ≥75 min/week vigorous intensity or combination, ideal hypertension and diabetes mellitus status was defined as absence of hypertension and diabetes mellitus. One serving of fruit or vegetable is approximately 120 g. One serving of sugar-sweetened beverage is about 250 ml. One serving of meat is approximately 100 g. Model was adjusted for parental age, parental educational attainment, residence area, and offspring age, sex, birth weight, fruit consumption, vegetable consumption, SSBs consumption, meat and its products consumption, physical activity, delivery mode. Model goodness of fit test: P<0.01.
Supplementary Table 2 Adjusted multilevel mixed effect models for association between parental iCVH factors and the prevalence of offspring overweight and obesity (as determined by WHO)

| Parental iCVH factors          | Father-offspring pairs | Mother-offspring pairs |
|-------------------------------|------------------------|------------------------|
|                               | PR (95% CI)            | P value                | PR (95% CI)            | P value                |
| Ideal Dietary behaviors       | 1.16(0.81,1.68)        | 0.412                  | 1.03(0.83,1.27)        | 0.812                  |
| Ideal BMI status              | 0.51(0.46,0.58)        | <0.001                 | 0.49(0.44,0.54)        | <0.001                 |
| Ideal Current smoking         | 0.83(0.74,0.93)        | 0.002                  | 0.81(0.54,1.21)        | 0.308                  |
| Ideal Physical activity       | 0.96(0.85,1.08)        | 0.48                   | 0.84(0.78,0.92)        | <0.001                 |
| Ideal Hypertension            | 0.75(0.58,0.97)        | 0.03                   | 0.72(0.55,0.95)        | 0.021                  |
| Ideal Diabetes mellitus       | 0.49(0.31,0.76)        | 0.002                  | 0.57(0.36,0.89)        | 0.013                  |
| iCVH scores                   | 0.74(0.69,0.79)        | <0.001                 | 0.72(0.68,0.77)        | <0.001                 |
| 1-3                           | 1 [Reference]          |                        | 1 [Reference]          |                        |
| 4                             | 0.70(0.59,0.83)        | <0.001                 | 0.88(0.60,1.29)        | 0.523                  |
| 5                             | 0.54(0.45,0.64)        | <0.001                 | 0.58(0.40,0.84)        | 0.004                  |
| 6                             | 0.39(0.31,0.49)        | <0.001                 | 0.43(0.30,0.63)        | <0.001                 |

BMI: body mass index, iCVH: ideal cardiovascular health. Ideal dietary behavior was defined as ideal diet score ≥3 components (Fruits: ≥3 servings per day; Vegetables: ≥4 servings per day; Meat and its products: ≤3 servings per week; Sugar-sweetened beverages: ≤4 servings per week), ideal BMI status was defined as BMI <25kg/m2, ideal current smoking status was defined as never smoke, ideal physical activity was defined as ≥150min/week moderate intensity or ≥75 min/week vigorous intensity or combination, ideal hypertension and diabetes mellitus status was defined as absence of hypertension and diabetes mellitus. One serving of fruit or vegetable is approximately 120 g. One serving of sugar-sweetened beverage is about 250 ml. One serving of meat is approximately 100 g. Model was adjusted for parental age, parental educational attainment, residence area, and offspring age, sex, birth weight, fruit consumption, vegetable consumption, SSBs consumption, meat and its products consumption, physical activity, delivery mode. Model goodness of fit test: P<0.01.