Scoring details of DBI-P can be found in Supplementary Table S1. Further details of scores distribution of components and indicators were provided in the Supplemental Table S2 and Supplemental Table S3.

**Supplementary Table S1.** Components and scoring methods of DBI-P

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Component | Score | Subgroup | Range | First trimester | Second trimester | Third trimester |
| C1-Cereal | (-12)-12 | Cereal | (-12)-12 | 0g=-11  score increase 1 with  intake amount  increase 25g  250-300g=0  >575g=12 | 0g=-12  score increase 1 with  intake amount  increase 25g  275-325g=0  >600g=12 | <25g=-12  score increase 1 with  intake amount  increase 25g  300-350g=0  >625g=12 |
| C2-Vegetable and fruit | (-12)-0 | Vegetable | (-6)-0 | ≥400g=0  320-399g=-1  score decrease 1 with  intake amount  decrease 80g  0g=-6 | ≥400g=0  320-399g=-1  score decrease 1 with  intake amount  decrease 80g  0g=-6 | ≥400g=0  320-399g=-1  score decrease 1 with  intake amount  decrease 80g  0g=-6 |
|  |  | Fruit | (-6)-0 | ≥250g=0  200-249g=-1  score decrease 1 with  intake amount  decrease 50g  0g = -6 | ≥300g=0  240-299g=-1  score decrease 1 with  intake amount  decrease 60g  0g=-6 | ≥300g=0  240-299g=-1  score decrease 1 with  intake amount  decrease 60g  0g=-6 |
| C3-Dairy, soybean and nut | (-12)-0 | Dairy | (-6)-0 | ≥300g=0  240-299g=-1  score decrease 1with  intake amount  decrease 60g  0g=-6 | ≥400g=0  320-399 g =-1  score decrease 1 with  intake amount  decrease 80g  0g=-6 | ≥400g=0  320-399 g =-1  score decrease 1 with  intake amount  decrease 80g  0g=-6 |
|  |  | Soybean and nut | (-6)-0 | ≥25g=0  20-24 g =-1  score decrease 1 with  intake amount  decrease 5g  0g=-6 | ≥30g=0  24-29 g =-1  score decrease 1 with  intake amount  decrease 6g  0g=-6 | ≥30g=0  24-29 g =-1  score decrease 1 with  intake amount  decrease 6g  0g=-6 |
| C4-Animal food | (-12)-8 | Meat and poultry | (-4)-4 | 0g=-4  1-13g=-3  14-26g=-2  27-39g=-1  40-65g=0  66-80g=1  81-95g=2  96-110g=3  >110g=4 | 0g=-4  1-17g=-3  18-33g=-2  34-49g=-1  50-75g=0  76-90g=1  91-105g=2  106-120g=3  >120g=4 | 0g=-4  1-24g=-3  25-49g=-2  50-74g=-1  75-100g=0  101-120g=1  121-140g=2  141-160g=3  >160g=4 |
|  |  | Fish and  shrimp | (-4)-0 | 0g=-4  1-13g=-3  14-26g=-2  27-39g=-1  ≥40g=0 | <5g=-4  5-19g=-3  20-34g=-2  35-49g=-1  ≥50g=0 | <15g=-4  15-34g=-3  35-54g=-2  55-74g=-1  ≥75g=0 |
|  |  | Egg | (-4)-4 | 0g=-4; 1-15g=-3; 16-30g=-2; 31-45g=-1; 46-55g=0; 56-70g=1;  71-85g=2; 86-100g=3; >100g =4 | | |
| C5-Empty energy food | 0-12 | Cooking  oil | 0-6 | ≤25g=0; 26-30g=1; score increase 1 with intake amount increase 5g; >50g=6 | | |
|  |  | Alcoholic beverage | 0-6 | 0g=0; 1-10g=1; score increase 1 with intake amount increase 10g; >50g=6 | | |
| C6-Condiments | 0-12 | Addible sugar | 0-6 | ≤25g=0; 26-30g=1; score increase 1 with intake amount increase 5g; >50g=6 | | |
|  |  | Salt | 0-6 | <6g=0; 6-7g=1; 8-9g=2; score increase 1 with intake amount increase 2g; >15g=6 | | |
| C7-Diet variety# | (-12)-0 | Diet variety | (-12)-0 | If the kind of food have already met or exceed the minimum (soybeans 5g, others 25g), the score is zero. If not, the score is -1. | | |
| C8-Drinking water | (-12)-0 | Drinking water | (-12)-0 | ≥1500ml=0  score decrease 1  with intake amount decrease 125ml  <125ml=-12 | ≥1700ml=0  score decrease 1  with intake amount decrease 140ml  <160ml=-12 | ≥1700ml=0  score decrease 1  with intake amount decrease 140ml  <160ml=-12 |

#the diet variety included 12 categories of food: rice and products; wheat and products; corn, coarse grains and products, starchy roots and products; dark-colored vegetables; light-colored vegetables; fruit; soybeans and nuts; milk and dairy products; red meat and products; poultry and game; egg; fish and shellfish.

Abbreviations: DBI-P, diet balance index for pregnancy.

**Supplementary Table S2.** Distribution of scores for each DBI-P components among pregnant women (%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Scores | Cereal | Vegetable | Fruit | Diary | Soybean and nut | Meat and poultry | Fish and  shrimp | Egg | Cooking  oil | Alcoholic beverage | Addible sugar | Salt | Diet variety | Water and soup |
| -12 ~ -11 | 0 |  |  |  |  |  |  |  |  |  |  |  | 0 | 2.23 |
| -10 ~ -9 | 1.80 |  |  |  |  |  |  |  |  |  |  |  | 0.53 | 8.28 |
| -8 ~ -7 | 11.89 |  |  |  |  |  |  |  |  |  |  |  | 2.55 | 23.46 |
| -6 ~ -5 | 26.96 | 4.46 | 5.10 | 20.17 | 22.82 |  |  |  |  |  |  |  | 15.50 | 23.99 |
| -4 ~ -3 | 28.45 | 51.49 | 28.45 | 37.79 | 36.20 | 3.08 | 36.31 | 17.09 |  |  |  |  | 33.33 | 19.00 |
| -2 ~ -1 | 16.35 | 32.80 | 32.70 | 32.06 | 18.15 | 13.59 | 37.90 | 39.17 |  |  |  |  | 38.85 | 11.15 |
| 0 | 7.64 | 11.25 | 33.76 | 9.98 | 22.82 | 14.76 | 25.80 | 31.63 | 32.48 | 97.56 | 35.56 | 28.87 | 9.24 | 11.89 |
| 1 ~ 2 | 3.18 |  |  |  |  | 18.37 |  | 5.63 | 55.94 | 2.44 | 53.61 | 70.38 |  |  |
| 3 ~ 4 | 1.91 |  |  |  |  | 50.21 |  | 6.48 | 11.36 | 0 | 9.66 | 0.11 |  |  |
| 5 ~ 6 | 0.96 |  |  |  |  |  |  |  | 0.21 | 0 | 1.17 | 0.64 |  |  |
| 7 ~ 8 | 0.53 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 ~ 10 | 0.21 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 ~ 12 | 0.11 |  |  |  |  |  |  |  |  |  |  |  |  |  |

Abbreviations: DBI-P, diet balance index for pregnancy.

**Supplementary Table S3.** Distribution of DBI-P indicators among pregnant women

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Type | Indicator | Distribution of dietary quality [n (%)] | | | | |
| No problem1 | Almost no  Problem2 | Low  Level3 | Moderate level4 | High level5 |
| Over  intake | HBS | 17 (1.80) | 784 (83.23) | 138 (14.65) | 3 (0.32) | 0 (0) |
| Under  intake | LBS | 0 (0) | 141 (14.97) | 477 (50.64) | 307(32.59) | 17 (1.80) |
| Overall unbalance | DQD | 0 (0) | 93 (9.87) | 659 (69.96) | 190 (20.17) | 0 (0) |

For each indicator: 1a score of 0 means ‘no problem’ ;

2a score of less than 20% of the total score means ‘almost no problem’ diet;

3between 20% and 40% of the total score means ‘low level of problem’ diet;

4 between 40% and 60% of the total score means ‘moderate level of problem’ diet;

5 greater than 60% of the total score means ‘high level of problem’ diet.

Abbreviations: DBI-P, diet balance index for pregnancy; HBS, high bound score; LBS, low bound score; DQD, diet quality index.