**Supplementary Table 2: Chinese famine reports by study health conditions and reported changes relative to controls**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |   |   |   |  |  |  | **Prevalence (%)/ means (SD) by birth groups** | **Changes relative to comparison groups (Odds ratio unless indicated)** |
| **Report number** | **Authors** | **Conditions studied** | **Famine severity/ Birth place** | **Sex** | **Famine births (a)** | **Pre-famine births (b)** | **Post-famine births (c)** | **Famine births (a)** | **Pre-famine births (b)** | **Post-famine births (c)** | **Famine births (a/c)** | **Pre-famine births (b/c)** |
|  |
| **BMI, overweight, and obesity** |
| 2 | Yang et al. 2008 | Overweight | ++/+ | M | 42.1 | - | 38.0 | 24·7R | - | 24·3 | 1·02R | - |
| F | 31·9R | - | 26·5 | 1·30R | - |
| Obesity | M | 7·0R | - | 6·8 | 1·03R | - |
| F | 10·0R | - | 7·33 | 1·41R | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 12 | Fung et al. 2010 | BMI (kg/m2) (SD) | ++/+ | M | - | 22·1 (2·7) | 0·35 ↑ | - |
| F | - | 22·6 (3·0) | 0·84 ↑ | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 13 | Luo et al. 2006 | Overweight | ++ | M | - | 18·9 | - | 7·2 | 11·7% ↑ | - |
| F | 20·8 | - | 9·7 | 11·1% ↑ | - |
| + | M | 21.0 | - | 10·7 | 8·6% ↑ | - |
| F | 18·3 | - | 15·8 | 2·5% ↑ | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 27 | Wang et al. 2010 | Overweight | ++ | M | 47.0 | 50.0 | 44.0 | 48·9 | 46·0 | 48·2 | 1·03 | 0·92 |
| F | 23·4 | 26·3 | 19·5 | 1·26 | 1·48 |
| Obesity | M | 10·7 | 10·5 | 11·2 | 0·95 | 0·93 |
| F | 2·85 | 4·43 | 3·08 | 0·94 | 1·46 |
|  |
| **Diabetes and hyperglycemia** |
| 3 | Li et al. 2010 | Hyperglycemia | ++ | M+F | 41.5 | 46.5 | 38.5 | 7·3 | 3·9 | 2.0 | 3·92 | 1·79R |
| + | 2·1 | 5·6 | 3·5 | 0·57 | 1·80R |
| Diabetes | ++ | M+F | 2.0 | 2·5 | 1·4 | 2·01 | 1·78R |
| + | 1·1 | 3·4 | 2·1 | 0·41 | 1·76R |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 9 | Wang et al. 2015 | Diabetes | + | M | 53.5 | 60.5 | 45.5 | 18·1 | 18·3 | 10·6 | 1·64 | 1·34 |
| F | 8·7 | 14·8 | 5.0 | 1·47 | 2·81 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 22 | Zhang et al. 2010 | Impaired fasting glucose | + | M | 48.3 | 48.3 | 14·9 | 11·7 | 1·32\* | - |
| F | 21·7 | 14·5 | 1·64\* | - |
| Diabetes | M | 6·8 | 7·4 | 0·91\* | - |
| F | 13·1 | 7·1 | 1·98\* | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 25 | Li et al. 2014 | Impaired fasting glucose | + | M+F | 46.4 | 46.3 | 9·0 | 8·2 | 1·14\* | - |
| Diabetes | 9·0 | 7·7 | 1·22\* | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 28 | Li et al. 2010 | Hyperglycemia | ++ | M | 51.3 | 47.5 | 45.1 | 8·2R | 7·5R | 5·8R | 1·48R | 1·35R |
| F | 51.5 | 47.5 | 45.3 | 2·3R | 2·9R | 1·4R | 1·64R | 2·14R |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 32 | Liu et al. 2009 | Diabetes | ++ | M+F | 47.9 | - | 45.1 | 3·1R | - | 2·33 | 3·44R | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 34 | Zhang et al. 2014 | Impaired fasting glucose (mmol/L) (SD) | ++ | M | 52.9 | 55.7 | 50.1 | 5·65 (1·55) | 5·58 (1·32) | 5·62 (1·52) | ↑ | - |
| F | 52.8 | 55.4 | 50.3 | 5·27 (1·06) | 5·46 (1·63) | 5·46 (1·52) | ↑ | - |
|  |
| **Hypertension** |
| 4 | Li et al. 2011 | Hypertension | ++ | M+F | 46.5 | 41.5 | 38.5 | 19·3 | 21·1R | 12·8 | 1·88 | 1·80R |
| + | 15·7 | 27·1R | 18·6 | 0·86 | 1·86R |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 11 | Chen et al. 2013 | Hypertension | ++/+ | M | 49.2 | 52.0 | 46.1 | 11·8 | 10.0 | 10·3 | 1·09 | 1·07 |
| F | 49.1 | 52.0 | 46.1 | 14·2 | 12·7 | 7.0 | 2·16 | 1·87 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 17 | Wang et al. 2012 | Hypertension | + | M+F | 48.5 | 52.0 | 47.0 | 13·9 | 19·4 | 11·1 | 1·31 | 1·83 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 21 | Ma et al. 2011 | Hypertension | ++/+ | M+F | - | 24·2 | 7·9% ↑ | - |
|  |
| **Metabolic syndrome** |
| 5 | Li et al. 2011 | Metabolic syndrome | ++ | M+F | 41.5 | 46.5 | 38.5 | 7·8 | 6·4R | 3·1 | 3·13 | 2·38R |
| + | 7·4 | 10·5R | 9·4 | 0·8 | 1·06R |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 10 | Wang et al. 2015 | Metabolic syndrome | + | M | 53.5 | 60.5 | 45.5 | 20.0 | 19.0 | 16·5 | 0·95 | 0·65 |
| F | 23.0 | 33.0 | 13.0 | 1·47 | 1·8 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 29 | Guan et al. 2009 | Metabolic syndrome | ++ | M | 48.0 | 52.0 | 44.0 | 14·1 | 15·7 | 13·1 | 1·23 | 1·09 |
| F | 3·8 | 3·3 | 1·6 | 2·05 | 2·36 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 31 | Zheng et al. 2012 | Metabolic syndrome | ++ | M | 47.5 | 50.5 | 44.5 | 22·5 | 18·8 | 20·1 | 1·15 | 1·04 |
| F | 7·3 | 8·6 | 4.0 | 1·87 | 1·5 |
|  |
| **Schizophrenia and mental illness** |
| 1 | Song et al. 2009 | Schizophrenia | Rural | M+F | - | 0·2 | 0·2 | 0·1 | 0·94 | 1·01 |
| Urban | 1·05 | 1·09 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 8 | Huang et al. 2012 | Mental illness GHQ scores (SD) | ++/+ | M | 42.9 | 46.2 | 40.3 | 0·77 (1·68)R | 0·72 (1·62)R | 0·77 (1·67) | 0·62R | 0·68R |
| F | 0·99 (1·86)R | 0·94 (1·77)R | 0·58 (1·30) | 3·01R | 1·39R |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 14 | Xu et al. 2009 | Schizophrenia | Rural | M+F | 40.6 | 43.7 | 37.3 | 0·5 | 0·3 | 0·3 | 1·95R | - |
| Urban | M+F | 1·2 | 1·5 | 1·4 | 0·87R | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 15 | St Clair et al. 2005 | Schizophrenia | ++ | M+F | 40.5 | 43.8 | 36.9 | 0·9 | 0·7 | 0·8 | 2·10R | - |
|  |
| **Combined outcomes of any of the above** |
| 6 | Huang et al. 2010 | BMI (kg/m2) (SD) | Rural | F | 34.1 | 36.9 | 32.1 | 21·7 (2·6) | 22·1 (2·7) | 21·5 (2·6) | 0·3 ↑  | 0·9 ↑ |
| Urban | 21·5 (2·7) | 22·1 (2·5) | 21·2 (2·7) |
| Hypertension | Rural | 15·5 | 21·2 | 15·6 | 1·06R | 3·74 |
| Urban | 26·4 | 27·6 | 22·5 | 0·75R | 1·26 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 19 | Xu et al. 2015 | Dyslipidemia | ++/+ | M+F | - | 55·0 | 53·1 | 52·2 | No difference with double difference or instrumental variable method |
| Diabetes | 16·4 | 15·7 | 12·6 |
| Hypertension | 34·9 | 32·2 | 27·7 |
| Heart problems | 18·1 | 18·8 | 17·6 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 35 | Zhao et al. 2013 | BMI (kg/m2) (SD) | ++ | M+F | 55.0 | 52.0 | 49.0 | 24·5 (2·9) | 24·1 (2·8) | 24·7 (3·2) | No effect | No effect |
| Obesity | 9·9 | 13·0 | 13·3 | 0·72 | 0·98 |
| Hyperglycemia | 20·9 | 35·2 | 24·3 | 0·82 | 1·69 |
| Diabetes | 7·7 | 15·3 | 28·5 | 0·90 | 1·95 |
| Hypertension | 25·3 | 38·3 | 27·3 | 0·90 | 1·65 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 36 | Guan et al. 2009 | Overweight | ++ | M+F | 41.0 | - | - | 23·0 | 26·7 | 46·7 | No effect | - |
| Hypertension | 6·8 | 5·2 | 9·5 | - |
| Hyperglycemia | 10·8 | 8·1 | 6·0 | - |
|  |
| **Other outcomes** |
| 7 | Huang et al. 2014 | Proteinuria | Rural | F | 34.5 | 37.0 | 32.0 | 6·0 | 1·54 | 1·29 |
| Urban | 7·0 | 0·94 | 0·70 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 16 | Li et al. 2012 | Stomach cancer | ++ | M | 62.0 | - | 27.0 | 10·3\*10-5 | - | 7·7\*10-5 | 2·39 | - |
| F | 2·2\*10-5 | - | 2·3\*10-5 | 1·64 | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 18 | Li et al. 2015 | Test time score A | + | M+F | 53.0 | - | 50.0 | 55·9 (20·1) | - | 47·2 (20·6) | ↑ | - |
| Test time score B | 133·7 (54·2) | - | 126·0 (55·5) | ↑ | - |
| Color test corret rate | 34·1 (12·6) | - | 40·2 (17·9) | ↓ | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 20 | Kim et al. 2015 | Speech problems | ++/+ | M+F | - | 0·7 | ↑ | - |
| Walking problems | 5·9 | ↑ | - |
| Vision problems | 5·0 | ↑ | - |
| Arithmetic task errors | 50 | ↑ | - |
| Recall errors | 58 | ↑ | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 23 | Shi et al. 2013 | Anaemia | + | M | 41.5 | 46.5 | 38.5 | 28·4 | 21·1R | 16·4 | 1·73 | - |
| F | 37·4 | 35·0R | 34·2 | 1·09 | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 24 | Zhou et al. 1998 | Enamel hypoplasia | ++/+ | M+F | - | 55·9 | 49·0 | 45·5 | 1.46 | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 26 | Li et al. 2015 | Resting heart rate (beats/min) (SD) | + | M | 46.5 | - | 46.5 | 74·5 (9·9)R | 74·7 (9·6)R | 74·0 (9·6)R | 1·15 | 1·10 |
| F | 73·9 (8·9)R | 73·5 (8·8)R | 73·4 (9·0)R | 0·96 | 0·95 |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 30 | Chen et al. 2015 | Fatty liver | ++ | M | 51.0 | 51.0 | 47·0 | 44·5\* | 1·30 | - |
| F | 23·2 | 19·5\* | 1·24 | - |
|   |  |  |  |  |  |  |  |  |  |  |  |   |
| 33 | Li et al. 2014 | Liver and kidney function | ++ | M | 51.0 | 53.5 | 48.5 | - | - | - | Mixed results |
| F | - | - | - |

++/+: Severe famine with high and extreme provincial mortality/less severe famine with medium and low provincial mortality

M/F: Male/female

R: Recalculated from published data

↑/↓: Increase/decrease