

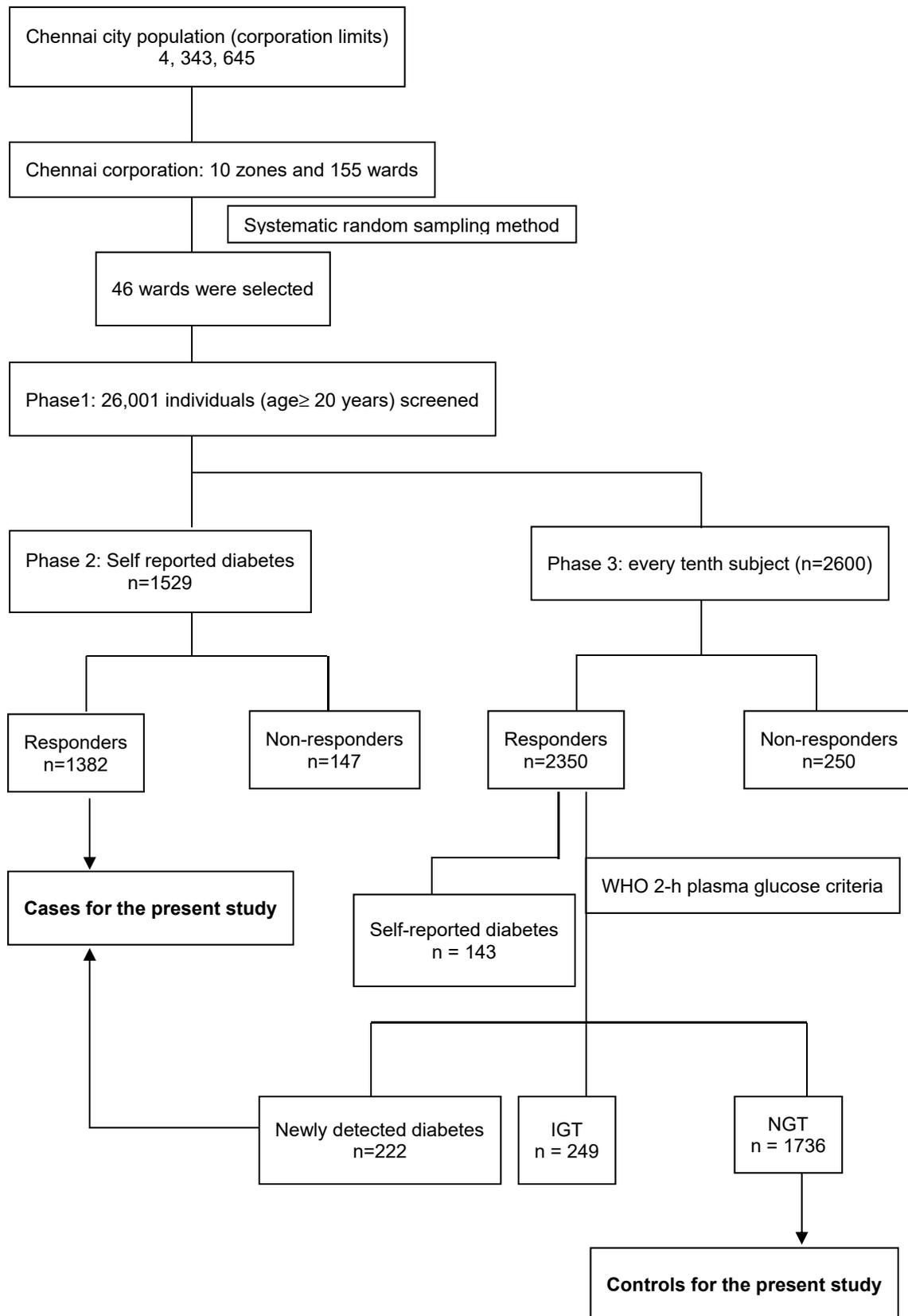
## Supplementary information

**Table S1. Genotype distribution of the seven SNPs that were chosen for our study (n= 1,062)**

| Gene          | SNP        | MAF among NGTs | MAF among T2D cases | Overall MAF | HWE  |
|---------------|------------|----------------|---------------------|-------------|------|
| <i>TCF7L2</i> | rs12255372 | 0.20           | 0.21                | T= 0.21     | 0.36 |
| <i>TCF7L2</i> | rs7903146  | 0.30           | 0.33                | T= 0.31     | 0.12 |
| <i>FTO</i>    | rs8050136  | 0.06           | 0.13                | A= 0.10     | 0.35 |
| <i>FTO</i>    | rs918031   | 0.49           | 0.48                | C= 0.49     | 0.09 |
| <i>FTO</i>    | rs1588413  | 0.25           | 0.32                | T= 0.29     | 0.15 |
| <i>FTO</i>    | rs11076023 | 0.49           | 0.45                | T= 0.47     | 0.48 |
| <i>FTO</i>    | rs7193144  | 0.13           | 0.12                | T= 0.12     | 0.16 |

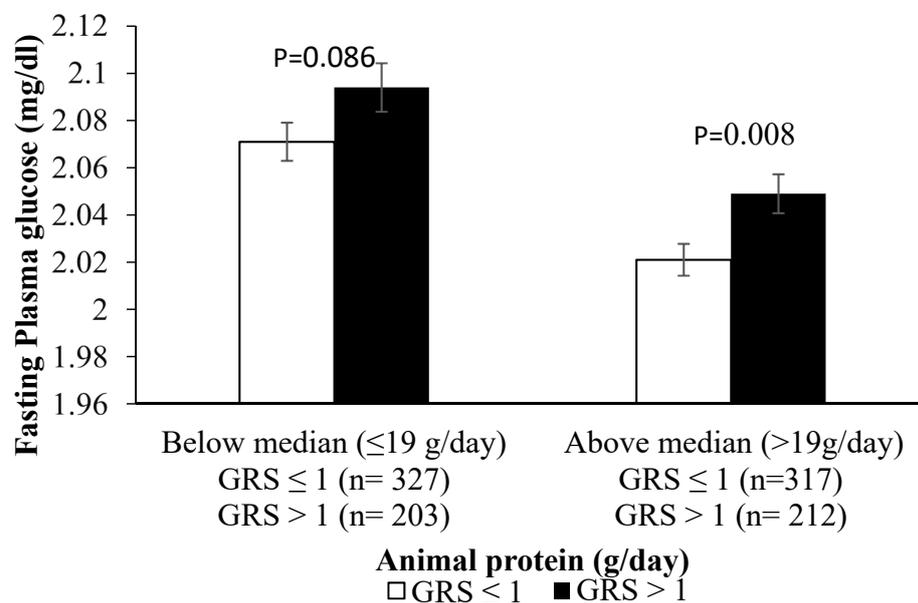
Abbreviations: SNP single nucleotide polymorphisms; MAF minor allele frequency; T2D type 2 diabetes; NGT, Normal Glucose Tolerance; HWE Hardy-Weinberg equilibrium; *TCF7L2* Transcription factor 7-like 2; *FTO* fat mass and obesity-associated.

**Figure S1: Methodology of the Chennai Urban Rural Epidemiology Study (CURES)**



**Figure S2: Interaction between 3-SNP GRS and animal protein intake (%) on fasting plasma glucose and glycated haemoglobin after adjusting for antidiabetic medications.** White bars indicate individuals with GRS  $\leq 1$  risk allele; the black bars indicate individuals with GRS  $> 1$  risk allele. (a) Individuals with  $> 1$  risk allele had a significantly higher FPG compared to those with  $\leq 1$  risk allele, among those with higher intake of animal protein ( $> 19$  g/day) ( $P=0.008$ ). (b) Individuals with  $> 1$  risk allele had a significantly higher HbA1c compared to those with  $\leq 1$  risk allele, among those with higher intake of animal protein ( $> 19$  g/day) ( $P=0.001$ ). P values were adjusted for age, sex, T2D, BMI, antidiabetic medications, total fat intake (%) and TEI. Abbreviations: GRS, genetic risk score; FPG, fasting plasma glucose; HbA1c, glycated haemoglobin and TEI, total energy intake.

**(a)**



**(b)**

