

**Supplementary Table 3.** Assessment of FPG GBTM trajectory model fit

| Trajectory shapes              | GBTM trajectory group |         |         |
|--------------------------------|-----------------------|---------|---------|
|                                | Group 1               | Group 2 | Group 3 |
| 3 Groups (0 0 0)*              |                       |         |         |
| Average posterior probability  | 0.82                  | 0.82    | 0.96    |
| Odds of correct classification | 6.61                  | 5.50    | 148.66  |
| Mismatch $ \pi_j - P_j $       | 0.00                  | 0.01    | 0.01    |
| 3 Groups (0 1 1)               |                       |         |         |
| Average posterior probability  | 0.82                  | 0.82    | 0.94    |
| Odds of correct classification | 6.80                  | 5.75    | 84.76   |
| Mismatch $ \pi_j - P_j $       | 0.01                  | 0.02    | 0.02    |
| 3 Groups (0 1 2)               |                       |         |         |
| Average posterior probability  | 0.82                  | 0.83    | 0.92    |
| Odds of correct classification | 7.07                  | 6.24    | 56.95   |
| Mismatch $ \pi_j - P_j $       | 0.02                  | 0.02    | 0.04    |

\*selected optimal model.

FPG, fasting plasma glucose; GBTM, group-based trajectory modeling;  $\pi_j$ , the population size of trajectory group  $j$  estimated by the model;  $P_j$ , the actual proportion of individuals that are assigned to group  $j$ .