

Table S1. Estimated odd ratios and 95% confidence interval of new onset diabetes per 5 ug/m³ increase of PM_{2.5}, by community type, exposure source and durations of 2 weeks and 30 days (n = 11,208). Models fitted using GEE with robust standard errors adjusted for age (centered and centered-squared), race, gender, income category, smoking status, annual average temperature, and region of REGARDS study, clustered on Census tract.

| Exposure source and duration | Odds Ratio (95 % CI) | | | |
|------------------------------|-------------------------------------|------------------------------------|------------------------------------|----------------------|
| | Higher density urban (n = 1,807) | Lower density urban (n = 4,527) | Suburban/small town (n = 2,224) | Rural (n = 2,650) |
| CDC WONDER | | | | |
| 2 weeks | 0.96 (0.81, 1.13) | 0.96 (0.86, 1.06) | 1.08 (0.92, 1.28) | 1.09 (0.94, 1.27) |
| 30 days | 0.99 (0.82, 1.20) | 1.01 (0.89, 1.15) | 1.12 (0.93, 1.35) | 1.09 (0.91, 1.30) |
| Downscaler | | | | |
| 2 weeks | 0.97 (0.81, 1.16) | 0.93 (0.83, 1.04) | 1.13 (0.94, 1.35) | 1.13 (0.96, 1.34) |
| 30 days | 0.98 (0.79, 1.21) | 0.97 (0.84, 1.11) | 1.15 (0.94, 1.41) | 1.17 (0.96, 1.42) |

Table S2. Spearman correlation coefficients for Downscaler PM_{2.5} estimates with exposure durations of 1, 2, 3, and 4 years among participants enrolled in 2005, 2006 and 2007 (n = 5,961).

| Duration | 1 year | 2 years | 3 years | 4 years |
|----------------|--------|---------|---------|---------|
| 1 year | 1.00 | | | |
| 2 years | 0.98 | 1.00 | | |
| 3 years | 0.96 | 0.99 | 1.00 | |
| 4 years | 0.94 | 0.98 | 0.99 | 1.00 |

Table S3. Estimated odd ratios and 95% confidence interval of new onset diabetes per 5 ug/m³ increase of PM_{2.5}, by community type and exposure duration of 3 (n = 9,277) years from the Downscaler model. Model was fit using GEE with robust standard errors adjusted for age (centered and centered-squared), race, gender, income category, smoking status, annual average temperature, and region of REGARDS study, clustered on Census tract.

| Exposure source and duration | Odds Ratio (95 % CI) | | | |
|------------------------------|-------------------------------------|------------------------------------|------------------------------------|----------------------|
| | Higher density urban (n = 1,471) | Lower density urban (n = 3,717) | Suburban/small town (n = 1,854) | Rural (n = 2,235) |
| Downscaler | | | | |
| 3 years | 0.89 (0.60, 1.31) | 1.06 (0.81, 1.39) | 1.42 (0.93, 2.18) | 1.66 (1.03, 2.65) |