**Table 2** Simulations’ results for the association between all-cause mortality and PM10. The true effects considered were 0.0032 for short –term exposure and 0.0344 for long-term exposure per 10 μg/m3 increase in PM10.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Effect estimate for 10 μg/m3 increase in short-term exposure | Effect estimate for 10 μg/m3 increase in long-term exposure |
| $$\hat{β\_{1}}×10$$$$(se(\hat{β\_{1}}) ×10)$$ | Bias(%) | Coverage probability(%) | Power(%) | $$\hat{β\_{2}}×10$$$$(se(\hat{β\_{2}}) ×10)$$ | Bias(%) | Coverage Probability(%) | Power(%) |
| **Urban / Suburban** | Land Use Regression | 0.00385(0.00604) | **20.4** | 94.7 | 11.1 | -0.00121(0.09330) | -103.5 | 92.0 | 5.6 |
| Dispersion | 0.00314(0.00374) | -2.0 | 93.6 | 15.4 | 0.01257(0.12159) | -63.5 | 90.6 | 8.8 |
| Hybrid 1 | 0.00326(0.00400) | **2.0** | 92.8 | 14.3 | 0.00223(0.09703) | -93.5 | 92.4 | 7.3 |
| Hybrid 2 | 0.00340(0.00413) | **6.4** | 93.3 | 15.1 | 0.01384(0.13028) | -59.8 | 88.8 | 10.5 |
| **Roadside / Kerbside** | Land Use Regression | 0.00313(0.00452) | -2.2 | 94.7 | 10.6 | 0.00033(0.05274) | -99.0 | 86.3 | 6.5 |
| Dispersion | 0.00284(0.00319) | -11.2 | 94.9 | 14.8 | 0.02268(0.06650) | -34.1 | 93.4 | 7.3 |
| Hybrid 1 | 0.00284(0.00323) | -11.3 | 94.0 | 13.2 | 0.00941(0.05510) | -72.6 | 89.6 | 8.1 |
| Hybrid 2 | 0.00314(0.00352) | -1.9 | 94.3 | 14.7 | 0.02712(0.07273) | -21.2 | 93.0 | 8.7 |

a Percent bias is highlighted in bold when positive (i.e. away from the null) rather than negative (i.e. towards the null);

Note: All reported biases are not statistically significant at the 5% level based on a one sample t-test.