

## Supplement 5 – Difference-in-difference analysis sensitivity results

**Table 1: Difference-in-difference estimates for program outcomes among long-term care homes (LTCHs) that implemented the program (n=30) (per-protocol analysis), LTCHs that withdrew (n=13) and LTCHs that attended all learning collaborative sessions (n=16)**

| Outcome:              | LTCHs implemented the program (n=30) and matched controls (n=88) |      |              | Withdrew (n = 13) and matched controls (n=39) |      |             | Attended all scheduled sessions (n=16) and matched controls (n=46) |      |              |
|-----------------------|--|------|--------------|---|------|-------------|--|------|--------------|
|                       | Estimate <sup>a</sup>  | SE   | 95% CI       | Estimate <sup>a</sup>                         | SE   | 95% CI      | Estimate <sup>a</sup>  | SE   | 95% CI       |
| Urine culturing       | -0.33**  | 0.02 | -0.38, -0.29 | 0.02  | 0.03 | -0.03, 0.08 | -0.41**  | 0.03 | -0.47, -0.35 |
| Urinary antibiotics   | -0.22**  | 0.04 | -0.29, -0.15 | 0.04  | 0.05 | -0.06, 0.14 | -0.21**  | 0.05 | -0.32, -0.11 |
| Total antibiotics     | -0.06*   | 0.02 | -0.10, -0.02 | -0.02   | 0.03 | -0.07, 0.04 | -0.08*   | 0.03 | -0.14, -0.03 |
| Acute care admissions | -0.03  | 0.03 | -0.08, -0.02 | 0.11*   | 0.04 | 0.03, 0.19  | -0.02  | 0.04 | -0.10, 0.05  |
| Mortality             | 0.02   | 0.05 | -0.08, 0.11  | 0.01  | 0.07 | -0.13, 0.15 | -0.03  | 0.07 | -0.16, 0.10  |

Note: SE, standard error. CI, confidence interval. <sup>a</sup>From the difference-in-difference estimates (Poisson random effects model) comparing the baseline period (Nov 2016 to April 2018) to the post-implementation period (Sept 2018 to Dec 2019). \*p < 0.01; \*\*p < 0.0001.