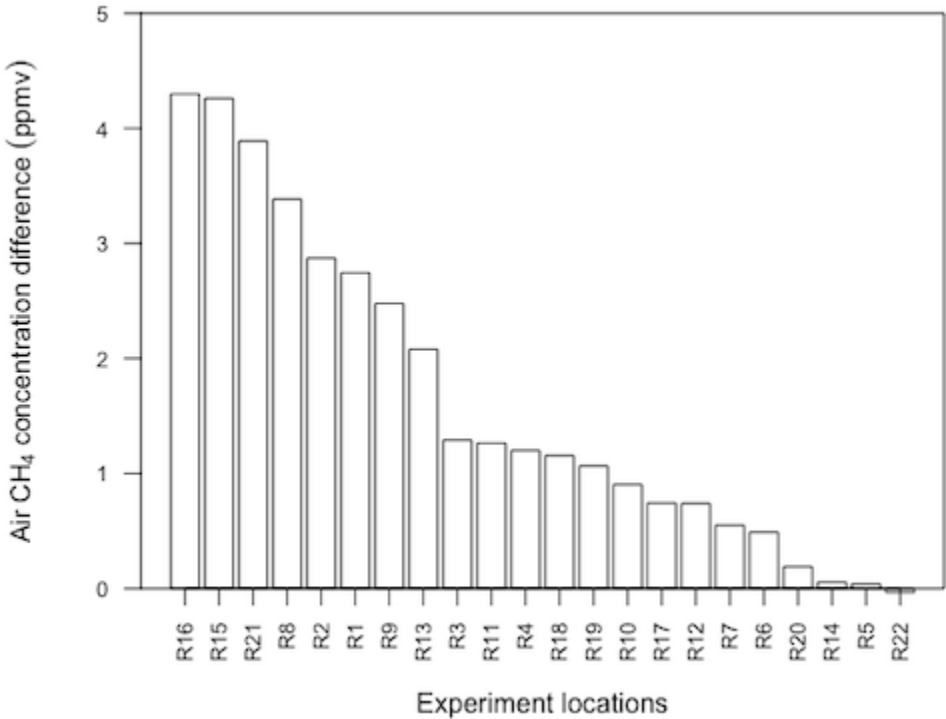


**S2 Appendix: Ambient CH<sub>4</sub> air concentration measurements**

**S2 Appendix section 1: Differences between ambient outdoor and basement air CH<sub>4</sub> concentrations**

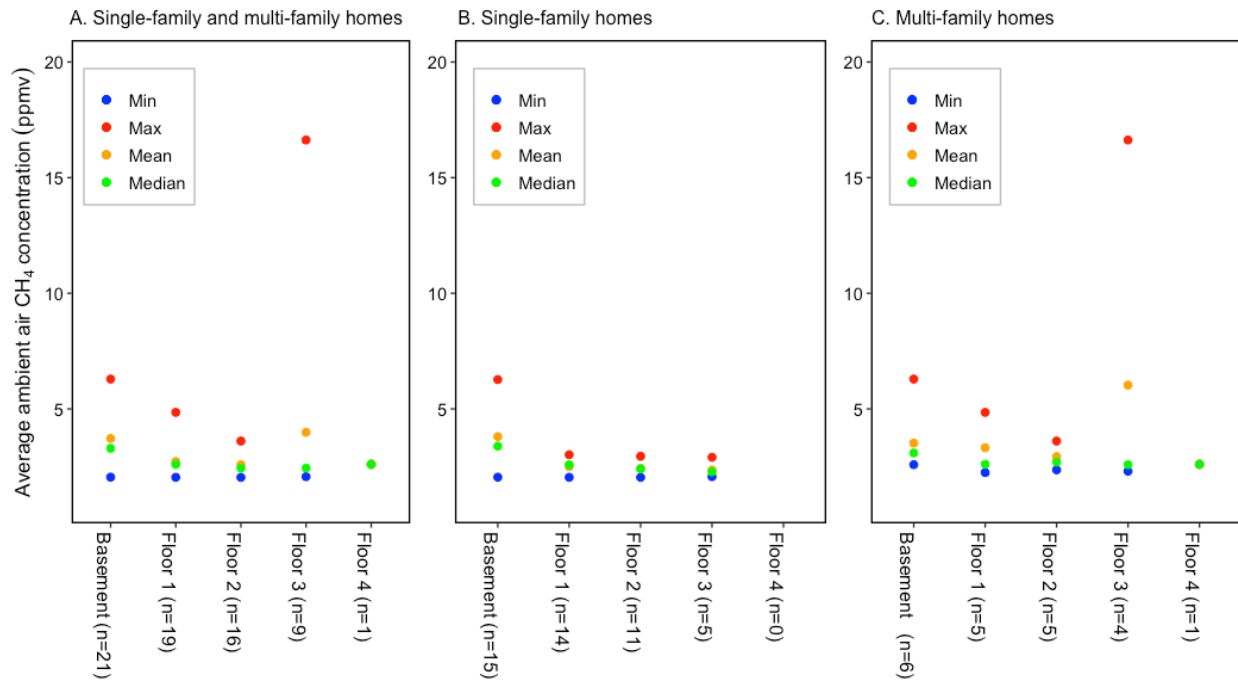
Ambient outdoor and basement air CH<sub>4</sub> concentrations were measured and used to determine whether to proceed with RCM and the bag method. The differences between the outdoor and basement measurements for each experiment location are shown in figure 2. Mean outdoor and basement ambient air CH<sub>4</sub> concentrations were 2.05 ppmv and 3.67 ppmv respectively, with medians 2.04 ppmv and 3.27 ppmv respectively (n=22). Differences between outdoor and basement air CH<sub>4</sub> concentrations ranged between 0-4.3 ppmv (mean 1.6 ppmv, median 1.2 ppmv).



**Figure 2.** Differences between outdoor air CH<sub>4</sub> concentrations and basement air CH<sub>4</sub> concentrations.

**S2 Appendix section 2: Ambient air CH<sub>4</sub> concentrations by floor for single-family and multi-family homes**

Multiple air CH<sub>4</sub> concentration readings were measured throughout each floor of each building studied prior to performing RCM or the bag method. Figure 3 shows the minimum, maximum, mean and median of these average measurements by floor and home type. Across all floors, multi-family homes had both a higher average minimum indoor air CH<sub>4</sub> concentration compared to single-family homes (2.4 ppmv versus 2.05 ppmv) and a higher average maximum indoor air CH<sub>4</sub> concentration compared to single-family homes (6.8 ppmv versus 3.8 ppmv).



**Figure 3.** Average air CH<sub>4</sub> concentrations by floor for single and multi-family homes