Introduction Employee safety incentive programs are a form of communicating to engage employees to increase the use of safety controls ranging from the use of proper tools, pre-task planning, to the use of personal protective equipment. We developed a safety communication and recognition program designed to encourage improvement of physical working conditions and hazard reduction in construction. The program communicated how well both the work site and individual subcontractors were controlling hazards on the site.

Methods To evaluate the developed program, we completed a cluster randomised controlled trial on eight work sites for approximately five months per site. Pre- and post- worker surveys measured changes in safety climate (n=615 with follow up rate of 88%). Multi-level mixed effect regression models tested the effect of B-SAFE on safety climate as assessed from surveys. Focus groups (n=6–8 workers/site) provided qualitative measures of changes not measured via the surveys.

Result Safety climate score at intervention sites improved. The intervention effect size was 1.64 (3.28%) (P-value<0.01) when adjusted for month the worker started on-site, total length of time on-site, as well as individual characteristics (trade, title, age, and race/ethnicity). At intervention sites, workers noted increased levels of safety awareness, communication, and team-work compared to control sites. Managers noted that subcontractors worked together and workers were engaged in the communication and receiving the data.

Discussion The program led to many positive changes, including an improvement in safety climate, awareness, teambuilding, and communication. The program is a simple approach to engaged workers through effective communication infrastructures and had a significant, positive effect on worksite safety.

Resultive measures of changes not measured via the surveys. Focus groups (n=6–8 workers/site) provided qualitative measures of changes not measured via the surveys.

Discussion The program led to many positive changes, including an improvement in safety climate, awareness, teambuilding, and communication. The program is a simple approach to engaged workers through effective communication infrastructures and had a significant, positive effect on worksite safety.