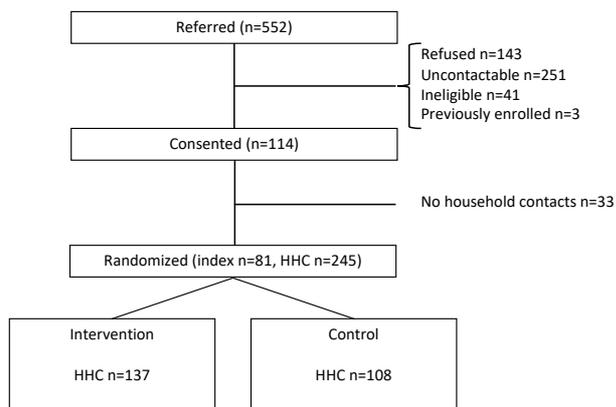


PACTR Transmission of COVID-19 in Crowded Environments Study Results Summary

The TRACE study was conducted in limited resource, high population density locations in Cape Town, South Africa. Newly diagnosed SARS-CoV-2 index cases were identified at clinics and were randomised into infection mitigation administered by lay healthcare workers (called STOPCOV) or a control group. The STOPCOV group received household information pack, face masks, surface disinfectant, and regular telephonic follow-up from the lay healthcare workers. Additionally, STOPCOV healthcare workers referred participants for further care if required. All household contacts of index patients were tested for SARS-CoV-2 (PCR and IgM/IgG serology) at baseline, weeks 1, 2, 3 and 4.

Overall, 552 patients were referred to the study team and not included for the following reasons: 251 had missing or incorrect contact information, 143 refused participation, 41 were ineligible and 3 were from previously enrolled households. The study randomised 114 eligible index patients. Of these, 81 (71%) (37 in the control, 44 in the intervention) had at least one HHC, with 14 (38%) male in the control and 16 (36%) in the intervention. There was a total of 245 HHCs (108 in the control, 137 in the intervention), with 48 (44%) male in the control, and 58 (42%) male in the intervention. Index cases were older in the intervention than the control (median age: control 39 years, intervention 52 years, $p=0.01$). There was no significant difference between HHC age (median age: control 41 years, intervention 35 years, $p=0.43$).



Baseline household exposure, based on SARS-CoV-2 antibodies present at study inclusion was 17% (n=17 of 100 tested) in control participants vs 38% (n=52 of 136 tested) in the intervention group. The secondary attack rate based on SARS-CoV-2 PCR testing in HHC was 1.9% (n=2) in control households vs 2.9% (n=4) in intervention households. The hazard ratio comparing the incidence in the intervention groups to the control group was thus 3.24 ($p=0.001$). Based on serology testing, SARS-CoV-2 antibodies were present in 38% intervention and 15% in control participants at the baseline visit, and 63 (46% of 138) vs 25 (33% of 76) respectively over the course of the study. Of the 88 HHCs with SARS-CoV-2 antibodies, 69% were from households with an asymptomatic index case and 31% from households with a symptomatic index case. STOPCOV CHWs made clinic and food parcel referrals for individuals and households in need. Participants had significant exposure to SARS-CoV-2 infections prior to the study evidenced. In this setting, household transmission mitigation was ineffective. However, CHWs identified social needs and may have facilitated timely referral.