



## Executive Summary

### [Multicomponent Strategies to Prevent SARS-CoV-2 Transmission — Nine Overnight Youth Summer Camps, United States, June–August 2021](#)

Kim Van Naarden Braun, PhD, Mark Drexler, MD, Ranna A. Rozenfeld, MD, Eytan Deener-Agus, Rebecca Greenstein, Michael Agus, MD, Mark Joffe, MD, Andrea Kasowitz, DO, Philip Levy, MD, Cliff Nerwen, MD on behalf of the Ramah Research Study

1. Very limited data were available on how to prevent entry and spread of SARS-CoV-2 in overnight camp prior to summer of 2021. The Ramah Camping Movement conducted a prospective, observational study across all nine of its US overnight camps from June to August, 2021 to assess the implementation of protocols designed to prevent entry and limit spread of SARS-CoV-2 in its nine camps.
2. Each camp implemented multicomponent prevention strategies including vaccination, pre-arrival and frequent testing during camp, cohorting (also known as podding), physical distancing, masking, hand hygiene, staggered meals and infirmary/medication visits, and physical facility modifications such as outdoor programming and improved ventilation.
3. 7,173 campers and staff members attended the nine U.S. Ramah overnight camps. Vaccination coverage was high (>93% among eligible persons aged  $\geq 12$  years for 8 of 9 camps that provided vaccination data); pre-arrival and frequent screening testing (38,059 tests); and additional concomitant prevention measures were undertaken.
4. **Only nine laboratory-confirmed COVID-19 cases and no secondary infections were detected during camp.**
5. Rigorous testing strategies proved successful in keeping positive cases from entering camp and the quick identification of positives allowing for rapid quarantine and isolation as per local health department recommendations.
6. Use of multiple, mutually supportive measures are critical in preventing the introduction and spread of SARS-CoV-2 in overnight camps and informing prevention for schools and related programs.

7. Regular meetings of the National Ramah Medical Committee starting in 2020 through the 2021 camp season were critically important in establishing protocols, providing guidance on the myriad prevention strategies, and sharing critical real time experiences throughout the summer.
8. With surrounding community case counts rising across the U.S., one of the greatest challenges camps faced was SARS-CoV-2 infection during intersession leave outside of camp. Camps faced with this situation were successful in identifying and managing these cases by following their protocols. This reinforced the importance of using multiple strategies to prevent the entry and limit the spread of SARS-CoV-2 in camp including testing all individuals regardless of vaccination status upon return to camp, having high vaccination rates, podding and multiple other measures.

*October 4, 2021*