Overcoming COVID-19 vaccine disparities among disadvantaged older adults

Rachel Murphy¹, Sarah E. Tietz MD², Tyler Wick³, Christine Azelby², Bennett Parnes², Elizabeth Juarez-Colunga³, and Hillary D. Lum MD, PhD²

Abstract

When the COVID-19 vaccination roll-out began at UCHealth in January 2021, patients were offered vaccination scheduling via online portals. They received an invitation for scheduling by lottery, and invitations expired after 48 hours. Despite well-intentioned equal opportunity via this method, the process was not equitable, particularly for older adults with lack of access to technology or limited English proficiency. To address these inequities, we rapidly deployed a patient-centered approach through student outreach. Thirty-two students from the School of Medicine, Nursing, and Pharmacy at University of Colorado donated over 500 hours to call 2,263 patients to offer COVID-19 vaccination. Over the course of 3 months, the expected growth of vaccination proportion per day was significantly greater in all subgroups targeted by students. Vaccination proportion for individuals with limited English proficiency grew 1.035 [95% CI: (1.029, 1.042)] times faster per day than patients proficient in English; vaccination proportion among persons of color grew 1.012 (1.009, 1.015) times faster per day than white patients; and patients without portal access had a faster vaccination proportion growth per day than those with portal access, 1.038 (1.031, 1.045). This outreach project is a successful example of a personcentered approach led by students to overcome health inequities in vaccine access. With the recommendation for COVID-19 booster vaccinations, we advocate for overcoming systems that may unintentionally cause gaps in vaccination proportions among vulnerable groups.

¹ University of Colorado School of Medicine, Aurora, Colorado, USA

² Division of Geriatric Medicine, University of Colorado School of Medicine, Aurora, Colorado, USA

³ Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Anschutz Medical Campus, Aurora, Colorado, USA