

Using communication to boost vaccination: Lessons for COVID-19 from evaluations of eight large-scale programs to promote routine vaccinations

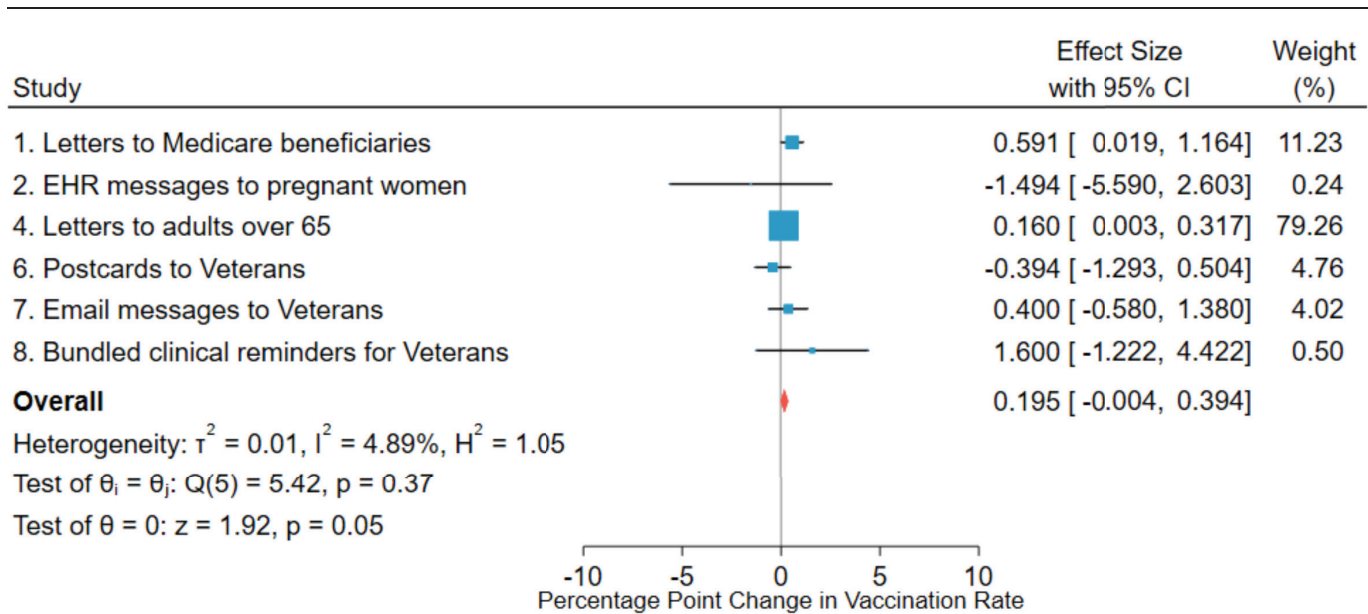
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Acknowledgments

We thank the many federal agencies, collaborators, academic affiliates, and the Office of Evaluation Sciences (OES) team members involved in developing and implementing the OES vaccination portfolio as well as the eight randomized evaluations referenced. We acknowledge Bruce Gellin, Roula Sweis, Ann Aikin, Jordan Broderick, Judith Mendel, Kara Elam, Glen Nowak, Anju Abraham, Melinda Wharton, and the U.S. Department of Health and Human Services' Office of Infectious Disease and HIV/AIDS Policy (formerly the National Vaccine Program Office) for their time and guidance. Thank you to our collaborators in the U.S. Department of Veterans Affairs (VA) for their work and dedication, including Troy Knighton, Kathleen Pittman, Jane Kim, and the National Center for Health Promotion and Disease Prevention team; Lois Katz, Craig Tenner, and the New York Harbor Veterans Affairs Health Care System staff; Judith Welter, Barry Venable, Dina Zwilling, Shawn Oglesby, and the St. Cloud Veterans Affairs Health Care System staff; Vincent Marconi, Joseph Michael Wallace, Kelly Fripps, Florence Longchamp, Kathryn Meagley, and the

Atlanta Veterans Affairs Health Care System staff. Thank you to the immunization program office at the city department of health and to Stacy Hall, Quan Le, Tony Fox, and the Louisiana Department of Health. Thank you to our collaborators at Duke University, including Kristin Weaver and Geeta Swamy. We would like to thank our collaborators at the Centers for Medicare and Medicaid Services at the U.S. Department of Health and Human Services. This work was funded in part by the National Vaccine Program Office and the Laura And John Arnold Foundation. We acknowledge the academic affiliates that contributed to this work and messaging, including David Bloom, Jessica Sullivan, the Harvard T. H. Chan School of Public Health, and the Value of Vaccination Research Network; Gretchen Chapman; Niteesh Choudhry, Roya Ghazinouri, Julie Lauffenburger, and the Center for Healthcare Delivery Sciences at the Brigham and Women's Hospital; Adam Berinsky; and Eli Sprecher. Finally, thank you to the many team members at OES that assisted with and strengthened this work, including Kelly Bidwell, Amira Boland, Nicholas Wilson, Crystal Hall, Benjamin Kistler, Dennis Kramer, Jake Bowers, Jasper Cooper, Jessica Skretch, and countless others. We, the authors of this article, grant unlimited and unrestricted rights to the General Services Administration to use and reproduce all materials in connection with the authorship.

Figure S1. Internal meta-analysis of six Office of Evaluation Sciences (OES) evaluations with vaccination uptake as the common outcome



Random-effects REML model

Note. EHR = electronic health record. This figure shows coefficients from studies included in an internal meta-analysis of OES vaccination evaluations targeted at the individual level. Evaluation numbers correspond to descriptions in Table 1. The meta-analysis relies on a random-effects maximum likelihood (REML) model, using inverse variance weighting. The blue squares reflect the average effect of the intervention (treatment) in each evaluation on the percentage point change in the relevant vaccination rate, where the size of the squares depend on the weight attributed to that evaluation. The 95% confidence intervals (CIs) based on the standard errors from the relevant regression are shown in black. The red diamond represents the overall effect across studies, as estimated by the meta-analysis. Finally, the meta-analysis reports τ^2 , or an estimator of the between-evaluation variance; I^2 , or the proportion of total variation in the estimates of the treatment effects that is due to heterogeneity between studies; and H^2 , or a measure of the impact of heterogeneity.

Two of the OES evaluations are not included in the internal meta-analysis because they had different outcomes from getting vaccinated. One aimed to increase click rates on an ad encouraging vaccination uptake and the other attempted to increase school immunization compliance by sharing compliance report cards with school administrators (Evaluations 3 and 5 in Table 1). Neither of those evaluations observed a statistically significant effect for the intervention they used.