

## EXPAND

The work detailed in this dissertation were generously supported by: the Office of the Provost and the Clinical Translational Science Institute, Huck Life Sciences Institute, and the Social Science Research Institutes at the Pennsylvania State University; the National Center for Advancing Translational Sciences, National Institutes of Health; Gavi, the Vaccine Alliance; the Bill & Melinda Gates Foundation; the National Science Foundation; and the University Graduate Fellowship at the Pennsylvania State University. Findings and conclusions do not necessarily reflect the view of the funding agencies.