



# COVID-19 VACCINATION RATES IN A GLOBAL HIV COHORT

## Abstract Body

Little is known regarding global COVID-19 vaccination rates in people with HIV (PWH), a population with significant morbidity from COVID-19. The Randomized Trial to Prevent Vascular Events (REPRIEVE) is a global primary cardiovascular prevention trial among PWH (N=7770) with representation from >100 sites across twelve countries (Brazil, Botswana, Canada, Haiti, India, Peru, Spain, South Africa, Thailand, Uganda, United States, Zimbabwe). Data collected on COVID-19 vaccination rates in REPRIEVE afford a unique opportunity to assess such rates among PWH across global regions.

We assessed cumulative COVID-19 vaccination rates from January through July 2021 among 6952 active participants and compared rates to region- and country-specific vaccination data among the general population, determined from publicly available datasets (CDC, World Bank). Secondly, within the REPRIEVE cohort, demographic, cardiovascular, and HIV-specific data were compared among those vaccinated vs not via Kaplan-Meier.

The cumulative probability of COVID-19 vaccination through the end of July 2021 was 47% among REPRIEVE participants, with rates varying substantially by global burden of disease (GBD) super-region and specific countries. Cumulative vaccination rates (Figure) were highest in the High-Income super-region (64%), followed by Latin America and the Caribbean (51%), Southeast/East Asia (36%), South Asia (16%) and Sub-Saharan Africa (12%). Country-specific rates varied dramatically, with vaccination rates highest in the United States, Peru, and Brazil, 67%, 60%, and 55%, and lowest in South Africa, Uganda, and Haiti with 11%, 3%, and 0%, respectively. Overall factors associated with COVID-19 vaccination among PWH included age, White race, natal male sex, BMI, and higher burden of cardiovascular risk factors, with important differences across GBD super-regions by log-rank test. Vaccination rates among PWH in REPRIEVE were largely comparable to the

general population, in most GBD super-regions (Figure), though differences were observed in comparison to the general population in specific countries (data not shown).

Global inequities in COVID-19 vaccine access among PWH are apparent, with highest vaccination rates observed among those residing in high-income regions. In addition to region, factors associated with vaccination among PWH included White race, natal male sex, and higher burden of CVD risk factors. Efforts are needed to increase global and regional vaccine rates for PWH.

## *AUTHORS*

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