

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

COVID-19 vaccination uptake for half a million non-EU migrants and refugees in England: a linked retrospective population-based cohort study



Rachel Burns, Ines Campos-Matos, Katie Harron, Robert W Aldridge

Abstract

Background COVID-19 has highlighted severe health inequities experienced by certain migrants. Despite evidence suggesting that migrants are at risk of under-immunisation, data are limited for migrants' COVID-19 vaccine uptake in England.

Methods We did a retrospective population-based cohort study on COVID-19 vaccination uptake in England. We linked the Million Migrant cohort (which includes non-EU migrants and resettled refugees) to the national COVID-19 vaccination dataset, using a stepwise deterministic matching procedure adapted from NHS Digital, and compared migrants with the general population. For migrants who linked to at least one vaccination record, we estimate temporal trends in first dose uptake and differences in second and third dose uptake and consequent delays between Dec 8, 2020, and April 20, 2022, by age, visa type, and ethnicity.

Findings Of the 465 470 migrants who linked to one or more vaccination record, 427 073 (91 \cdot 8%) received a second dose and 238 721 (51 \cdot 3%) received a third. Migrants (>30 years) reached 75% first-dose coverage between 1 and 2 weeks after the general population in England, with the gap widening to 6 weeks for younger migrants (16–29 years). Refugees specifically had a higher risk of a delayed second dose (odds ratio $1 \cdot 75$ [95 CI% $1 \cdot 62 - 1 \cdot 88$]) and third dose (1 \cdot 41 [1 \cdot 31–1 \cdot 53]). Older migrants (>65 years) were at least four times more likely to have not received their second or third dose compared with those of the same age in England.

Interpretation Uptake of the first dose was slower across all age groups for migrants compared with the general population. Refugees and older migrants were more likely to have delayed uptake of COVID-19 vaccines and to not have received their second or third dose. Policymakers, researchers, and practitioners should consider how to best drive uptake of COVID-19 and other routine vaccine doses and understand and address personal and structural barriers to vaccination systems for diverse migrant populations.

Funding Wellcome Trust and UK Research and Innovation.

Copyright © 2022 Published by Elsevier Ltd. All rights reserved.

Contributors

RB, KH, IC-M, and RWA contributed to the conception of the work. RB, IC-M, and RWA were responsible for the acquisition of data. RB did the data analysis. All authors reviewed and interpreted the results, edited the Abstract, and agreed to be accountable to all aspects of the completed work.

Declaration of interests

RB and RWA are on the organising committee for The Lancet Public Health Science Conference. All other authors declare no competing interests.

Published Online November 24, 2022

Centre for Public Health Data Science, Institute of Health Informatics (R Burns MSc, Prof K Harron PhD, Prof R W Aldridge PhD) and Institute of Child Health (Prof K Harron), University College London, London, UK; Office for Health Improvement and Disparities, UK Department of Health and Social Care, London, UK (I Campos-Matos PhD)

Correspondence to:
Ms Rachel Burns, Centre for
Public Health Data Science,
Institute of Health Informatics,
University College London,
London NW1 2DA, UK
r.burns@ucl.ac.uk

www.thelancet.com 5