

Hepatitis B in migrants and refugees

'The Forgotten people'

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From Ivory Towers...



...to lived experience





Hepatitis B Virus Infection in migrants and refugees

[I] Understanding and characterising
health needs and challenges

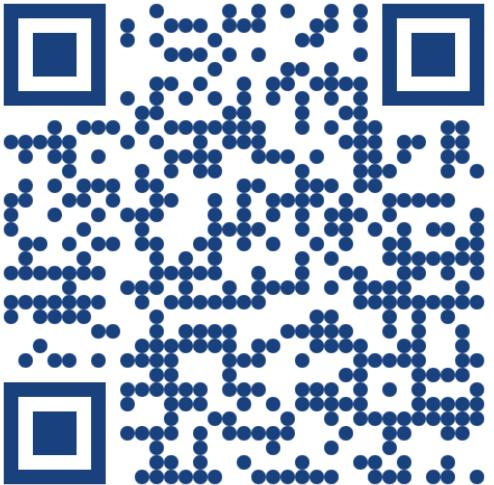
[II] Assessing and improving provision of interventions
for diagnosis, treatment and prevention

Setting the scene



The forgotten people: Hepatitis B virus (HBV) infection as a priority for the inclusion health agenda

Emily Martyn^{1,2,3}, Sarah Eisen³, Nicky Longley^{2,3,4}, Philippa Harris⁵, Julian Surey^{5,6,7}, James Norman⁵, Michael Brown^{2,4,5}, Binta Sultan^{5,8}, Tongai G Maponga⁹, Collins Iwuji^{10,11}, Stuart Flanagan⁸, Indrajit Ghosh^{5,8}, Alistair Story^{5,12†}, Philippa C Matthews^{1,4,8,13‡}



doi: 10.7554/eLife.81070

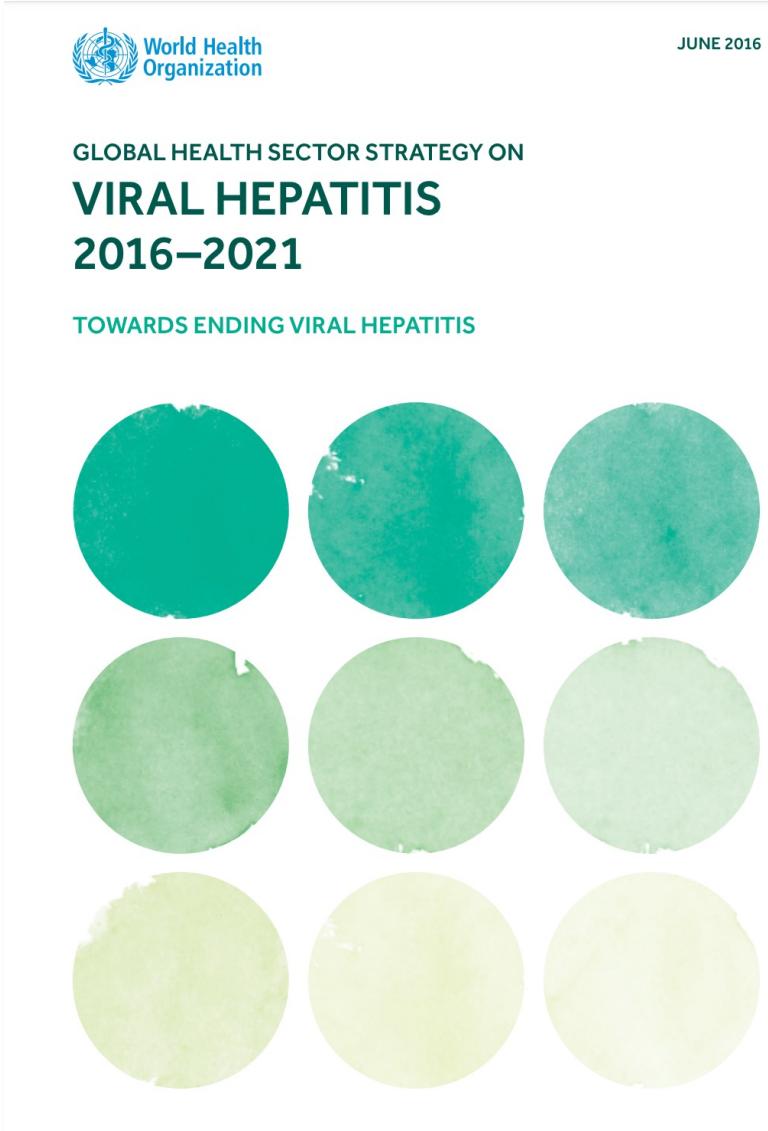


Collaborative
Centre for
Inclusion
Health

Inclusion health is a social justice movement to prevent and address the harms of extreme inequity in excluded groups through research, service and policy. This field continues to be neglected, underfunded and under-researched.

Examples of Excluded Groups:
Homeless people
Prisoners
Sex workers
Drug users
Migrants

Context



Specific goals by 2030

'Elimination of HBV as a public health threat'

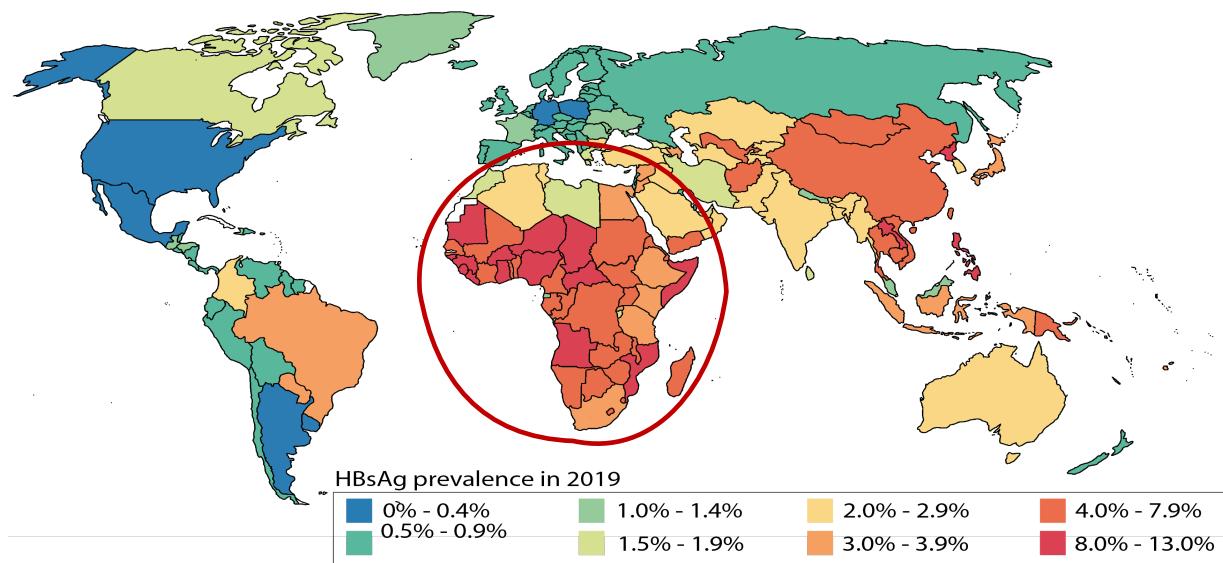
- **90%** reduction in new cases of chronic infection
- **90%** HBV vaccine coverage
- **90%** delivery of successful PMTCT
- **90%** of cases of chronic infection diagnosed
- **80%** of those eligible to be on treatment
- **65%** reduction in mortality



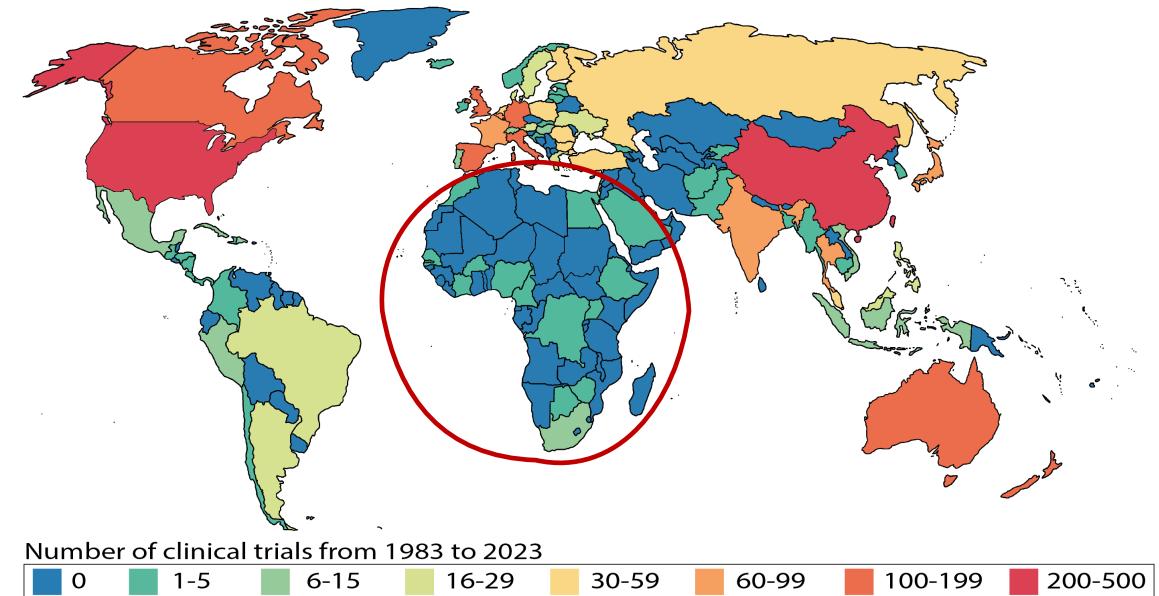
'To eradicate poverty in all its forms, end discrimination and exclusion, and reduce the inequalities and vulnerabilities that leave people behind.'

Global picture: HBV

HBsAg seroprevalence (2019)



HBV clinical trials (1983-2023)



'International migration is an important driver
of population change'



WORLDWIDE:

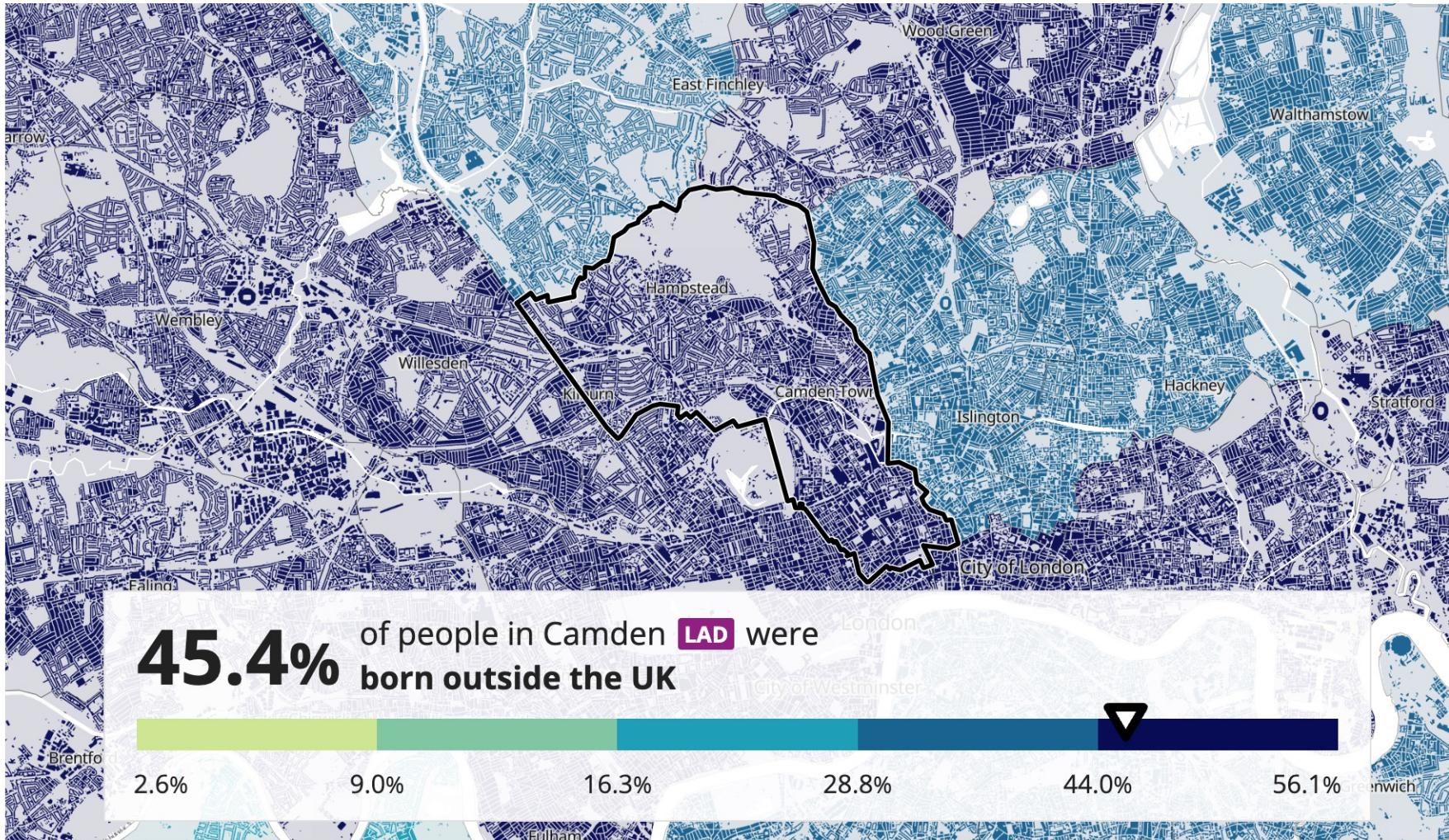
281

million migrants

3.60%

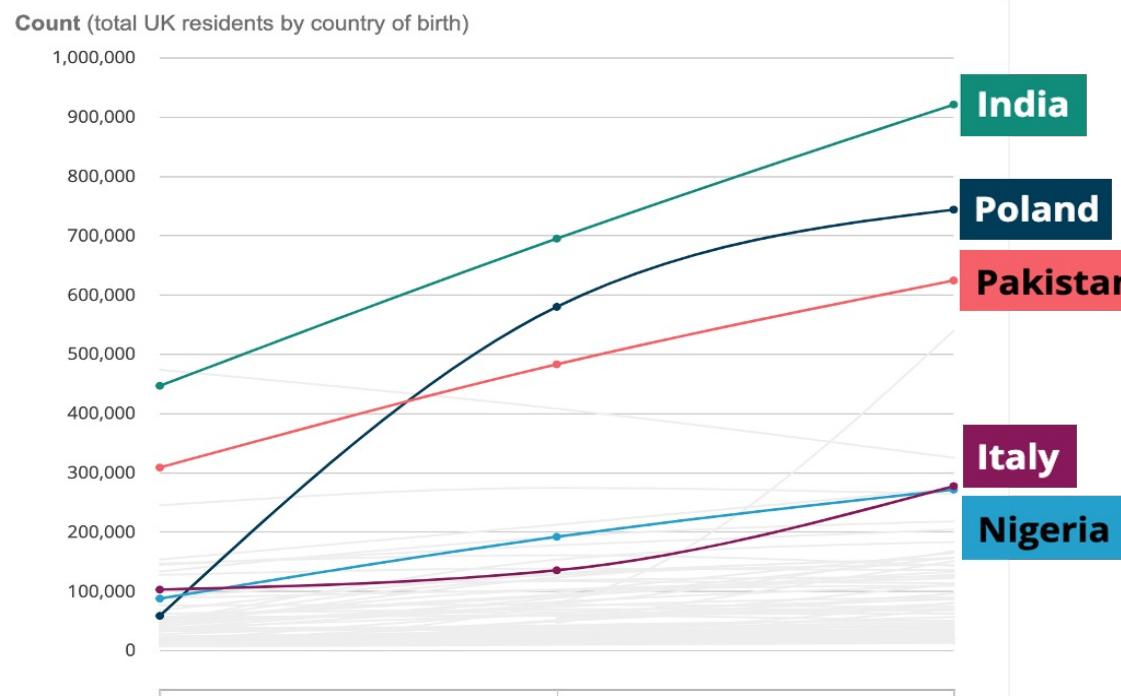
of the population

'International migration is an important driver of population change'



'International migration is an important driver of population *health* change'

Change in rates of migration for the top five countries of origin of UK migrants



HBV prevalence

2.9%
0.4%
2.3%
0.7%
9.9%

European picture: HBV and migrancy

In Europe, >50% of 49 million migrants born outside the European Economic Area come from nations where HBV endemicity is >2%.



In Europe, HBV prevalence is higher in asylum seekers (**10%**) and migrants (**5%**) than in the general population (**1%**)

Migration and HBV infection

Risk factors for infection and adverse outcomes persist across journeys



PRE-MIGRATION

- High endemicity country of origin

Low resource settings
Inadequate access to diagnosis and treatment

PERI-MIGRATION

- Circumstances for leaving country of origin
- Experiences *en route*

War
Trauma / Assault
Inadequate access to healthcare services
Disruption of vaccine provision
Poor access to barrier contraception

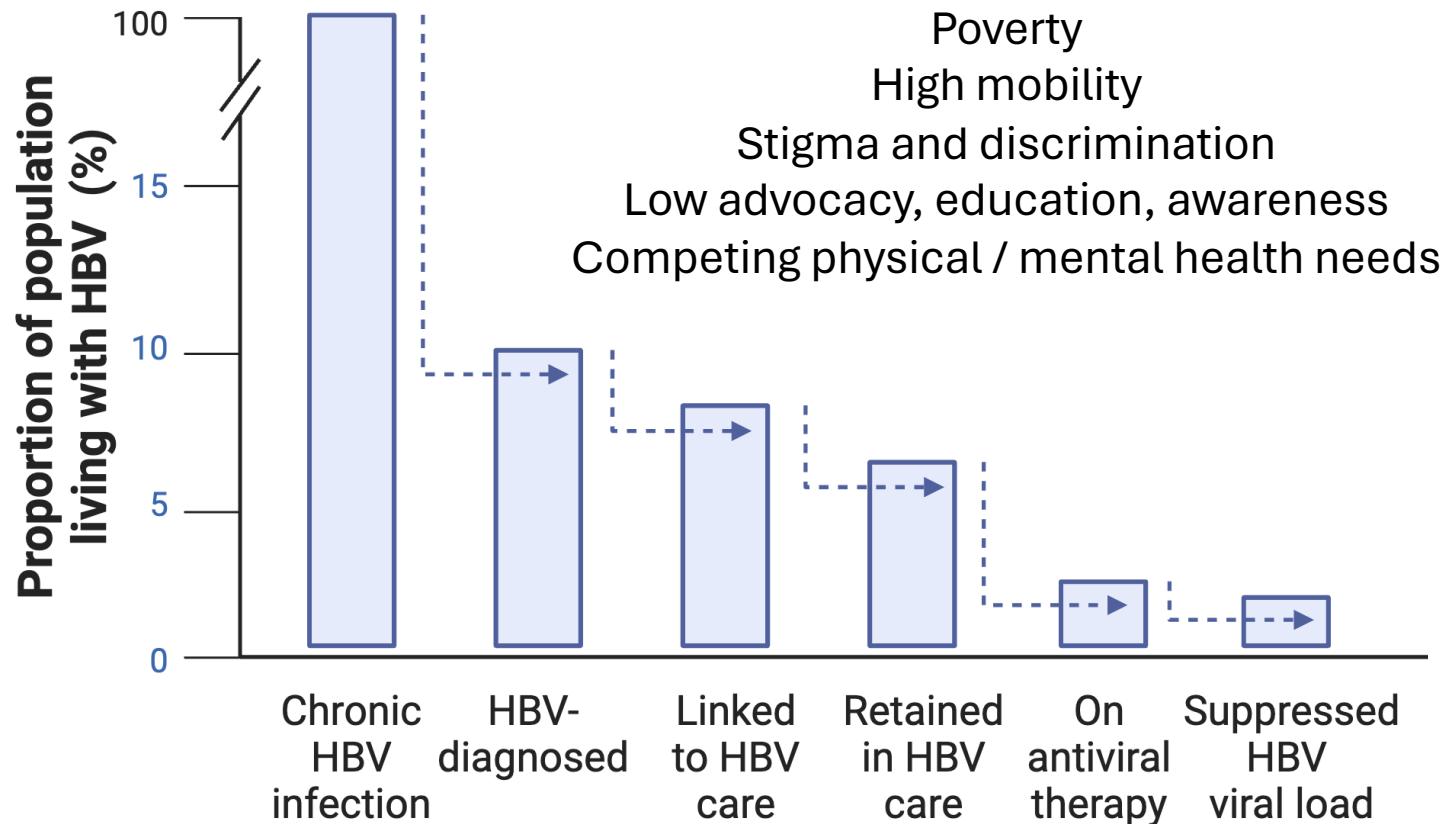
POST-MIGRATION

- Risk factors for BBV acquisition after migration

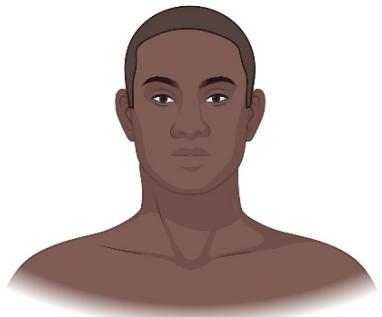
Sexual assault
Transactional sex
Poor access to healthcare services
Undocumented status
Stigma and discrimination

Migrants and refugees within the HBV ‘Care Cascade’

HBV care cascade

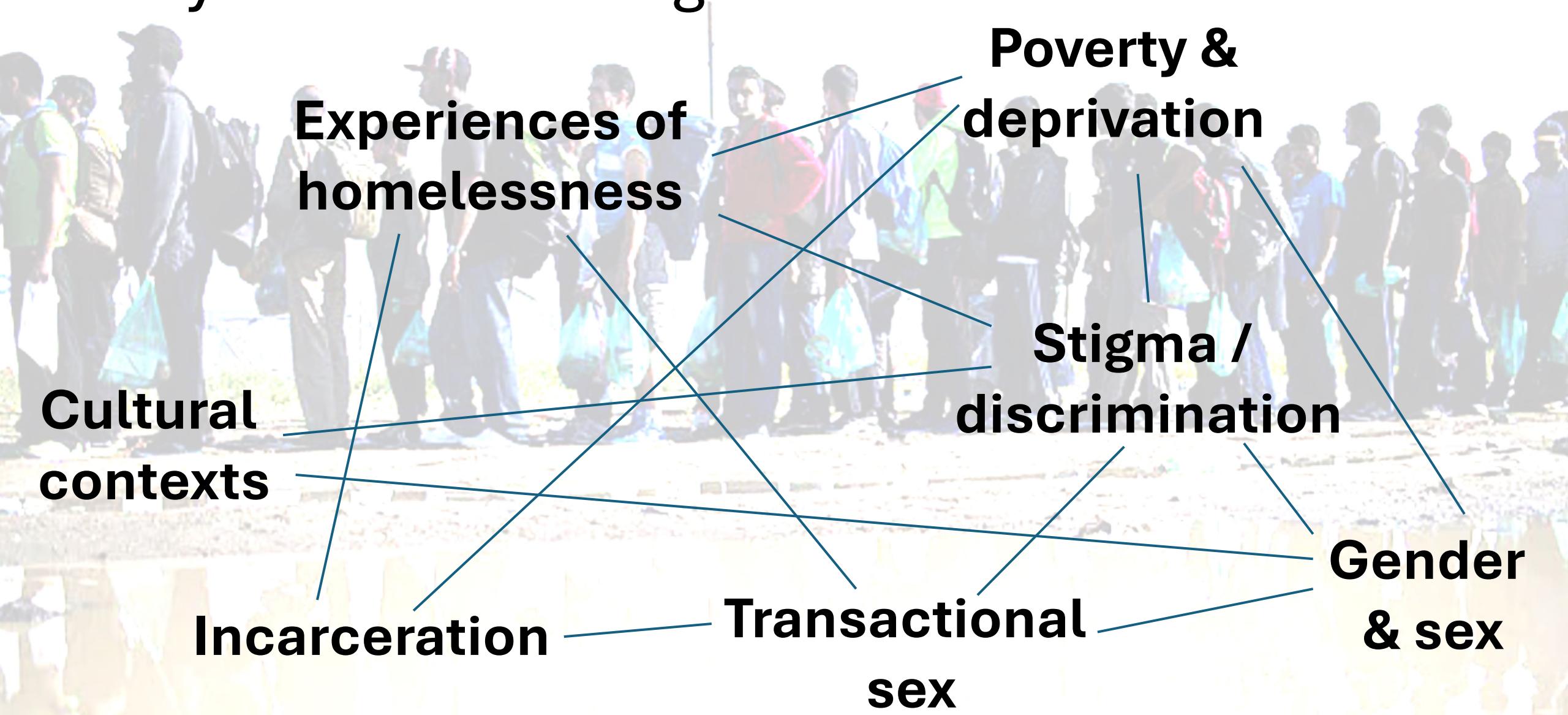


The Syndemic Challenge



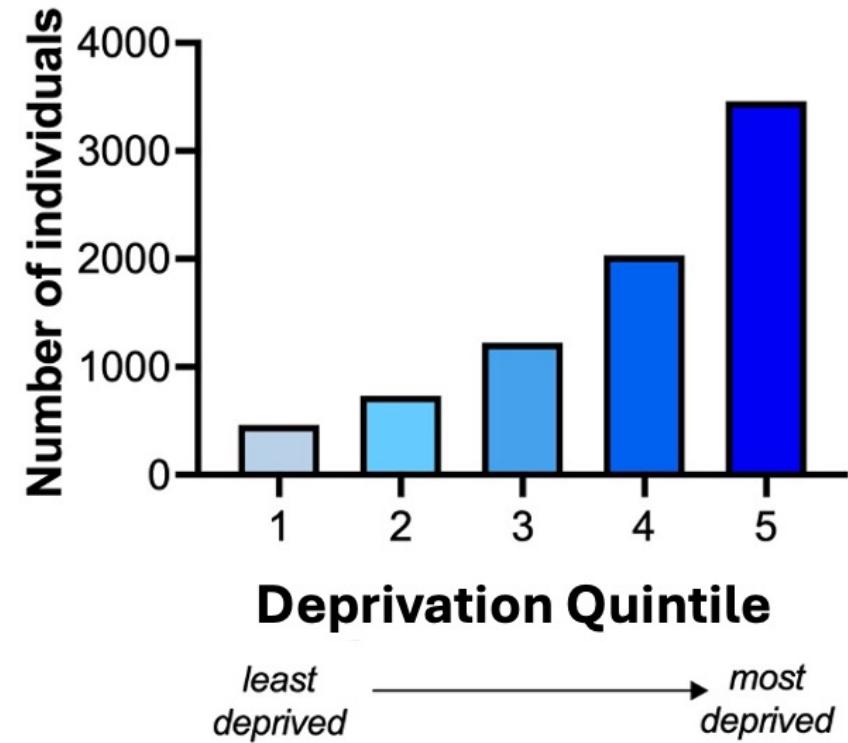
- 20 year old male from South Sudan
- Complex trauma in home country
- Arabic speaker (limited English)
- Lost contact with family
- Journey to UK: 1270 days, 9 countries
- Torture en route
- Possessions lost/stolen
- Living in temporary hotel accommodation
- £8/week to cover all costs
- If asylum status accepted – lack of support and short window to find permanent accommodation
- Walked 2 hours to come to clinic
- Weight 48kg
- Eye injury (assault)
- Dermatitis
- Anxiety/depression (PTSD)
- HBV infection on screening in hostel

The Syndemic Challenge



Poverty and deprivation

~8000 adults with chronic HBV identified



Stigma and discrimination



Hepatitis B virus infection as a neglected tropical disease

Geraldine A. O'Hara^{1,2*}, Anna L. McNaughton^{3*}, Tongai Maponga⁴, Pieter Jooste⁵, Ponsiano Ocama², Roma Chilengi⁶, Jolynne Mokaya⁷, Mitchell I. Liyayi⁸, Tabitha Wachira⁹, David M. Gikungi¹⁰, Lela Burbridge¹¹, Denise O'Donnell¹¹, Connie S. Akiror¹², Derek Sloan¹³, Judith Torimiro^{14,15}, Louis Marie Yindom¹⁶, Robert Walton¹⁷, Monique Andersson^{4,18}, Kevin Marsh^{3,19}, Robert Newton^{2,20}, Philippa C. Matthews^{3,18*}



Kilifi, Kenya
Entebbe, Uganda

“Having a Hep B diagnosis will bring shame to one’s family. This can cost family members jobs and school places.”

“Having a diagnosis comes with stigma and discrimination... and slowly results in isolation.”

“The health care workers are discriminating and stigmatising HBV patients due to lack of information.”

Cultural contexts

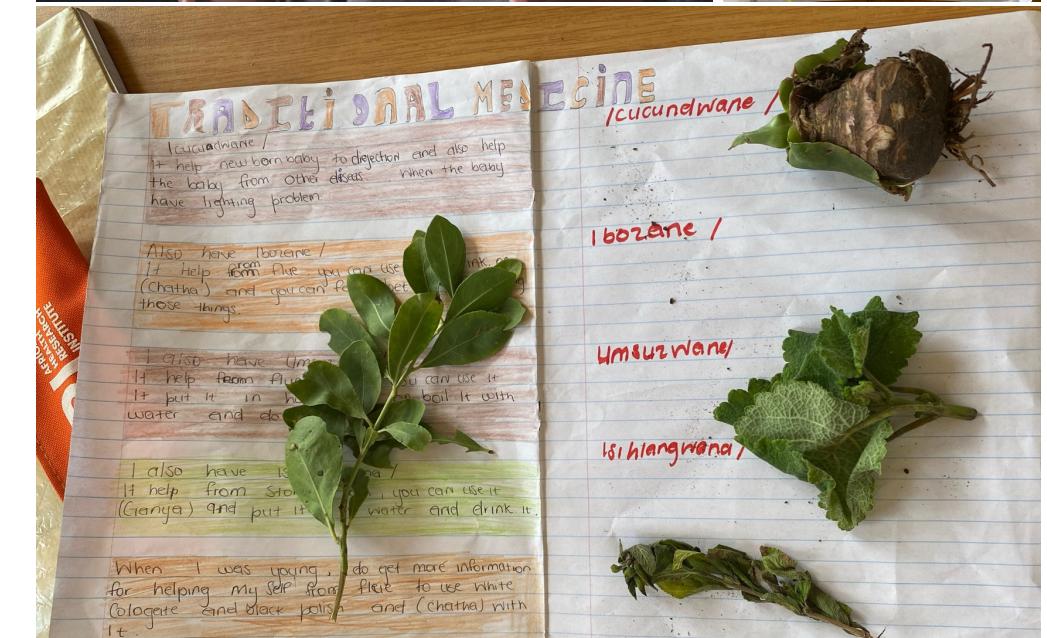
> *Viruses*. 2020 Mar 11;12(3):305. doi: 10.3390/v12030305.

Barriers to Hepatitis B Screening and Prevention for African Immigrant Populations in the United States: A Qualitative Study

Catherine Freeland ¹, Sierra Bodor ¹, Udara Perera ², Chari Cohen ¹

'Participants reported a lack of HBV knowledge and awareness...

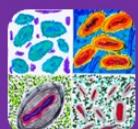
Barriers to health care access... including cost, language, racism, understanding of Western Medicine, and usage of traditional medicine.'



The Umkhumbane
Schools Project

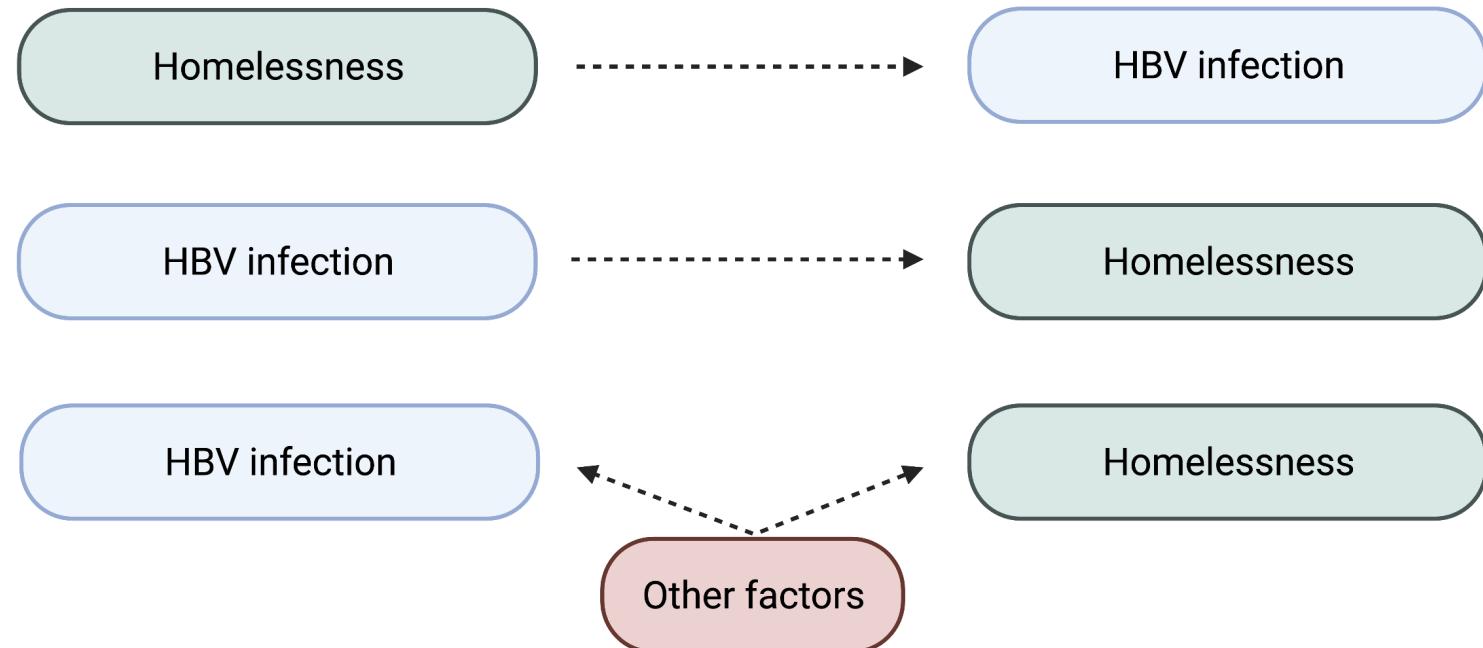


Infecting
Minds



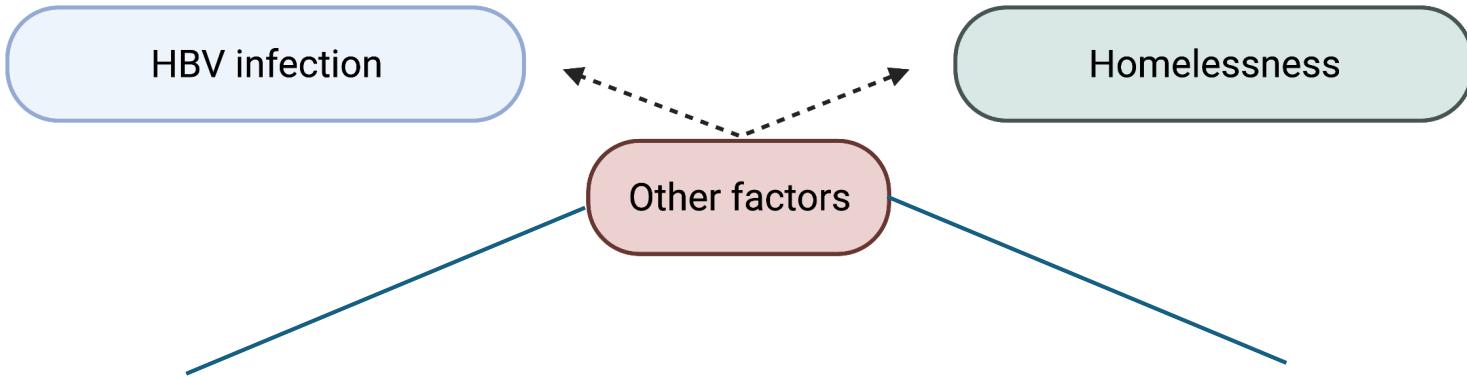
Experiences of homelessness

'A state of extreme social exclusion'



Review of 44 HBV articles representing ~275,000 individuals:

HBV seroprevalence rates among PEH was significantly higher than comparator groups or in the general population.



Incarceration

- 10.2 million people worldwide are incarcerated on any given day
- HBV prevalence in this population: 4.8%

Transactional sex

- Deprivation / poverty
- Social stigma
- Low condom use
- High alcohol and drug use
- Low vaccine coverage rates
- Highly mobile populations

Lancet. 2016 Sep 10;388(10049):1089-1102. doi:
10.1016/S0140-6736(16)30466-4
[Curr Hepatol Rep. 2017 Sep; 16\(3\): 178–183.](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5038113/)
doi: [10.1007/s11901-017-0364-8](https://doi.org/10.1007/s11901-017-0364-8)

<https://doi.org/10.1590/0037-8682-0231-2017>
<https://www.unitedwaymumbai.org/downloads/WebversionImpactReport2017.pdf>

Sex and gender...

HBV in the general population

Males are more likely to be
HBV-exposed than females

Males are more likely to have chronic
HBV infection than females

Outcomes are worse in males than females

Robin Brown, Philip Goulder, Philippa Matthews

Wellcome Open Res. 2022:7:32.

doi: 10.12688/wellcomeopenres.17601.2

Sex and gender...

...Female risk

HBV in the general population	HBV in migrants and refugees
Males are more likely to be HBV-exposed than females	Females are less likely to be HBV vaccinated
Males are more likely to have chronic HBV infection than females	Females are more likely to be living with chronic HBV infection
Outcomes are worse in males than females	HBV infection in females associated with sexual assault/abuse, injecting drug use, incarceration
	<ul style="list-style-type: none">• Reverse pattern of ‘sex dimorphism’• ‘Double-jeopardy’ because females also at risk of mother-to-child-transmission

Robin Brown, Philip Goulder, Philippa Matthews

Wellcome Open Res. 2022:7:32.

doi: 10.12688/wellcomeopenres.17601.2

LAYERS OF FEMALE DISADVANTAGE

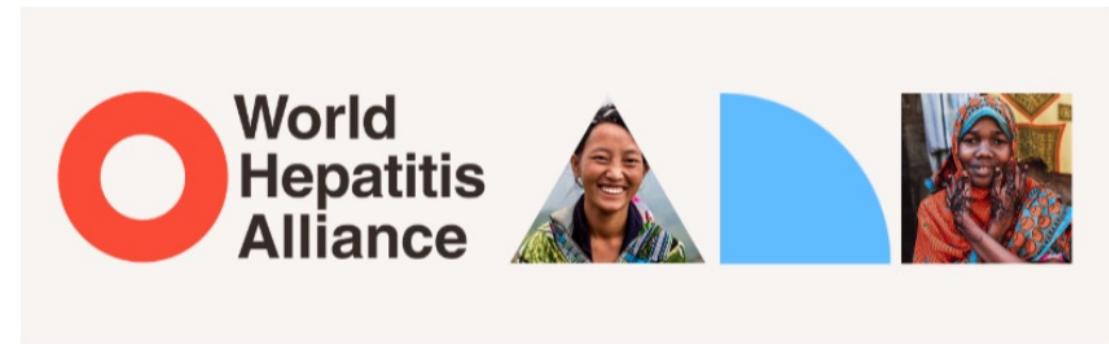
'Women look after themselves less'
- put children and wider family first.

Stigma and shame are experienced differently for women,
influenced by religious and cultural background.

Women may feel responsible for infection
in themselves or in their families.
'Devastating' to receive a diagnosis
of infection in pregnancy.

Particular impact of gender-based violence in women

Work in roles traditionally dominated by women may be
disproportionately influenced by HBV diagnosis,
e.g. food preparation; childcare.



CHAMPIONING WOMEN LIVING WITH HEPATITIS

Thursday 7 March 2024



World Hepatitis Alliance Webinar for
International Women's Day 2024

***Women are advocates and educators
in their families and communities***

[II] Assessing and improving care provision for viral hepatitis in refugee and migrant populations



Optimise opportunities for diagnosis



A screenshot of a website page. At the top is a dark blue header with the GOV.UK logo and a search bar. Below the header, on the left, is the UK Health Security Agency logo. The main content area has a blue background and features the text 'Research and analysis' in white, followed by a large white title: 'Emergency department bloodborne virus opt-out testing: 12-month interim report 2023'. At the bottom of this section, it says 'Published 9 November 2023'.

- Established in 34 Emergency Departments in England
- 325 new HBV diagnoses at 100 days
- More than double new diagnoses of HCV or HIV, despite fewer sites including HBV testing

Design inclusive HBV healthcare

RESPOND infection screening and treatment service



University College London Hospitals
NHS Foundation Trust



Programme leaders:
Dr Nicky Longley, Dr Sarah Eisen

Clinics offer infection screening and treatment for **all people migrating** to the UK and living in **all types of accommodation** in **any borough**.

- Paediatric infection screening and treatment (including unaccompanied asylum-seeking children)
- Adult infection screening and treatment
- Family infection screening and treatment clinic. Families seen together in one appointment.

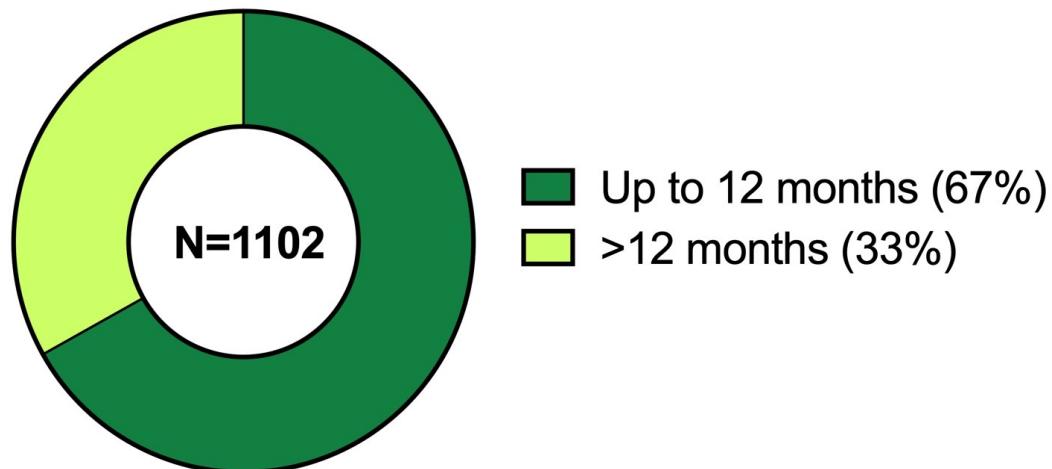
*Challenges:
Maintaining and expanding;
Needs commissioning and funding*

Understand the characteristics and needs of populations

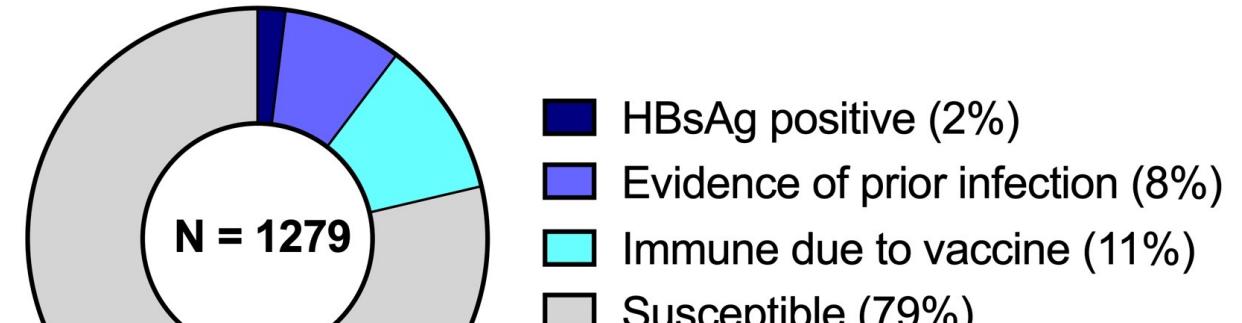
RESPOND infection screening and treatment service

Asylum seekers, in initial accommodation centres (pilot 2021-2023)

Journey time



HBV serosurvey results



Unpublished data
Dr Pippa Harris



Support pathways to care

RESPOND infection screening and treatment service

Asylum seekers, in initial accommodation centres, n=2743



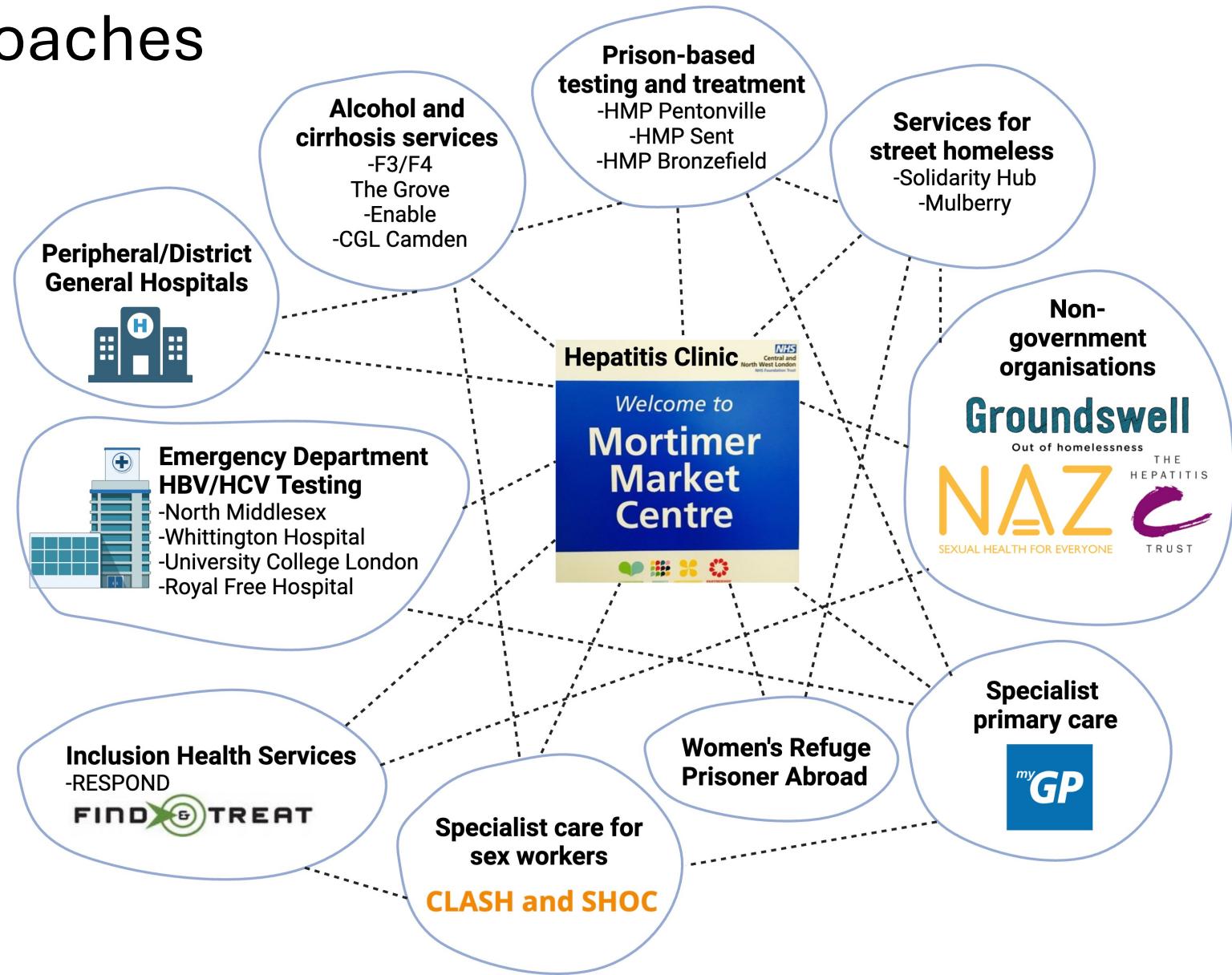
Hepatitis B virus (HBV) screening, linkage and retention-in-care in inclusion health populations: Evaluation of an outreach screening programme in London

Emily Martyn ^{a,b,*^{1,2}}, Sive O'Regan ^{c,1}, Philippa Harris ^c, Mark Leonard ^c, Martha Veitch ^c, Binta Sultan ^{d,e}, Philippa C. Matthews ^{b,d,f,g}, Indrajit Ghosh ^{c,d}, Alistair Story ^{c,h}, Julian Surey ^{c,e,i}

- In 67% of those testing HBsAg-positive, HBV was a new diagnosis
- Wide range of languages spoken
- Challenges in linkage to care and follow-up – but outcomes enhanced by pathways involving Inclusion Health specialists and peer supporters

Develop holistic approaches

Multiple services providing diagnosis and treatment for people living with chronic viral hepatitis in North Central London



Dr Stuart Flanagan
Dr Indrajit Ghosh
Dr Binta Sultan
Agnes Kemper
Joy Ko

Decentralise clinical services “Clinic on a bike”

Dr Indrajit Ghosh

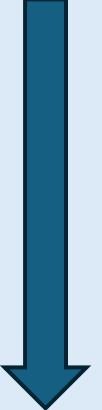


Raise awareness and provide guidance/resources for practitioners

The screenshot shows the GOV.UK website interface. At the top left is the GOV.UK logo. To its right is a 'Topics' dropdown menu. Below the header, there's a navigation bar with a blue bar containing a link to 'Coronavirus (COVID-19) | Latest updates and guidance'. Underneath this are standard navigation links: Home > Health and social care > Public health > Health protection > Infectious diseases. The main content area has a heading 'Guidance' followed by 'Hepatitis B: migrant health guide'. A subtext below it reads: 'Advice and guidance on the health needs of migrant patients for healthcare practitioners.' At the bottom of the page, there's a note from 'Office for Health Improvement and Disparities', a publication date of 'Published 31 July 2014', and an update date of 'Last updated 14 September 2021 — [See all updates](#)'.

*Must be sign-posted, accessible
and simple to implement*

Preliminary data from Primary Care Survey and Focus Groups in England

 **63%** regularly see patients from high endemicity countries of origin

20% aware of HBV elimination targets

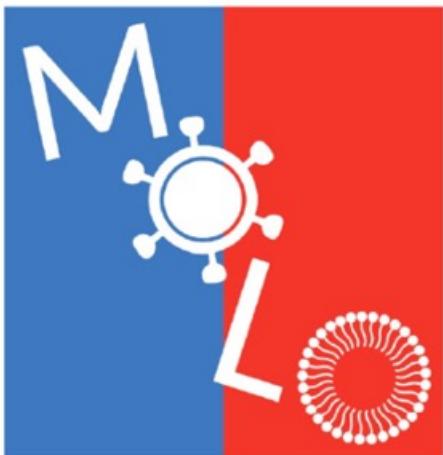
14% have HBV screening policy

Enthusiasm for service enhancements if strong referral pathways and shared care agreements

Dr Jess Carter
NIHR Fellow
St George's University



Provide outreach co-designed by communities, supported by accessible dialogue and information



Mongolians in London Survey (Hep-MOLO)

МОЛО судалгааны төсөл

Сайн байна уу, бид Лондон дахь Монголчуудын нийгэмлэгтэй хамтран ажиллаж байгаа NHS-ийн эмч, судлаачдаас бүрдсэн “Нер-MOLO” судалгааны баг юм.

Бид элэгний өвчний нөхцөл байдал, ялангуяа гепатитын В вирус зэрэг халдвартын талаар онцгойлон анхаарч, эрүүл мэндийн тусламж үйлчилгээний хүртээмжийг сайжруулахаар ажиллаж байна.



Je, ushawahi kusikia juu ya maradhi ya Hepatitis B?

Hepatitis B ni maambukizi ya virusi ambayo yanaweza kusababisha ugonjwa mbaya wa ini na hata saratani.

Ni ugonjwa wa kawaida sana; watu wengi hawana dalili na hawajui kuwa wameambukizwa.

Njia inayotumika sana ya kuambukizwa kwa hepatitis B ni kupitia damu kama watoto wachanga au watoto wadogo.

Watoto wanaweza kulindwa kwa kutumia chanjo

Takriban watu milioni 2 nchini Kenya wana maambukizi ya hepatitis B

Unaweza kupimwa kwa kipimo rahisi cha damu leo!

Matibabu ni bure na yanaweza kudhibiti hepatitis B na kulinda ini lako

Prioritise lived experience

- Co-design of services founded on lived experience
- Building engagement and trust with diverse communities
- Gathering an evidence-base to informing future approaches.

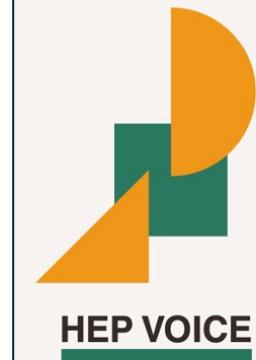
A call for advocacy and patient voice to eliminate hepatitis B virus infection

Matthews et al.,
Lancet Gastroenterol Hepatol.
2022.

Peer Support for People Living with Hepatitis B – an NHS First at CNWL

Authors: J. Ko¹, I. Ghosh¹, A. Kemper¹, F. Montiero¹, M. Longman¹, P. Matthews^{1,2}, S. Flanagan¹.
¹Bloomsbury Clinic, Mortimer Market Centre, London, UK ²The Francis Crick Institute, 1 Midland Road, London, UK

Introduction	Meet Joy
<ul style="list-style-type: none">Chronic hepatitis B virus (CHBV) affects 300 million people worldwide, and 200,000 people in the UK. Health consequences can include liver cirrhosis and cancer.CHBV has been highlighted as an international 2030 sustainable development goal (SDGs) for elimination as a public health threat.Peer support workers (PSW) are those with lived experience of an infection, condition or situation who work to provide support for others, aiming to improve education, prevention, treatment and other clinical interventions and to reduce the physical, psychological and social impacts of disease.PSWs aim to help others achieve the purposeful pursuit of a good life, irrespective of the absence or presence of symptoms, built around the pillars of hope, opportunity and control, with self-management and social inclusion at the heart.Peer support has been shown to be a valuable tool for improving health outcomes for people living with HIV, and Hepatitis C Virus (HCV), but to date has not been widely available for people living with CHBV.HBV disproportionately affects vulnerable and marginalised populations, who could benefit from PSWs to navigate complicated systems and provide advocacy, tackle stigma, improve education and representation, and optimise access to treatment and continuity of care.Until 2023, there were no salaried Peer Support Workers in the NHS. In July 2023, Mortimer Market Centre, CNWL NHS Foundation Trust appointed the first Hepatitis B Peer Support worker in the UK.	<p>Meet Joy</p> <ul style="list-style-type: none">Joy Ko is originally from Hong Kong and is living well with Hepatitis B.Joy was first diagnosed with Hepatitis B aged 22.When Joy started a family in Hong Kong with her husband, she was advised to start Hepatitis B treatment during the pregnancy.Joy spoke to a peer worker who was able to offer support. Joy says: "When I discussed my diagnosis with her about the impact of medication, I was introduced to a peer worker who shared her story. She told me about her family and when she found out that she had Hep B, how she started medication, and that she is now very healthy with two healthy children.""It was a huge relief to talk to someone who had been in my situation. This was the point where I really started to believe that we could do it. It was also full of hope. It helped me to make a lot of changes for the better.""I decided that I wouldn't be limited by Hepatitis B anymore. It's something that is manageable. My husband and my sons keep up their regular vaccinations. The great news is that I have not passed Hep B to my family and I am living well alongside my Hepatitis".Joy's own experiences led to her working with others living with Hepatitis B, and becoming the first NHS Hepatitis B Peer Support Worker. 



HEP VOICE
The Magazine
Issue 62



PUTTING COMMUNITY FIRST



Rethink prevention strategies



- Opportunities for providing a 3-dose vaccination to high-risk individuals must be explored and developed
- Offer vaccines alongside education, proactive antenatal and sexual healthcare, and other health interventions.
- Successful interventions
 - ***In Scotland*** - offering vaccination in prisons
 - ***In Belgium*** - Sex worker outreach, combined with other health interventions, legal and psychological support
 - ***In Spain*** – ‘COMSAVA’ (Community Screening and Vaccination in Africans)

COMSAVA: Pop-up clinics offering vaccines

Camila Picchio
Jeffrey Lazarus

ISGlobal

Barcelona Institute for Global Health



Study nurse administering 1st dose in a local mosque



Provision of a vaccination card for their records

Improving care of migrants is key for viral hepatitis elimination in Europe

Jin Un Kim,^a Patrick Ingiliz,^b Yusuke Shimakawa^c & Maud Lemoine^a

'European nations should recognize the importance of treating this vulnerable migrant population.

Political and health strategies need to be adapted to meet this challenge...'

TOP DOWN
..but also
BOTTOM UP

Mandates for change



Recommendations

Collate representative data

Provide holistic, trauma-informed care

Build gender-informed services

Embed community voice and peer support

Enhance vaccine programmes

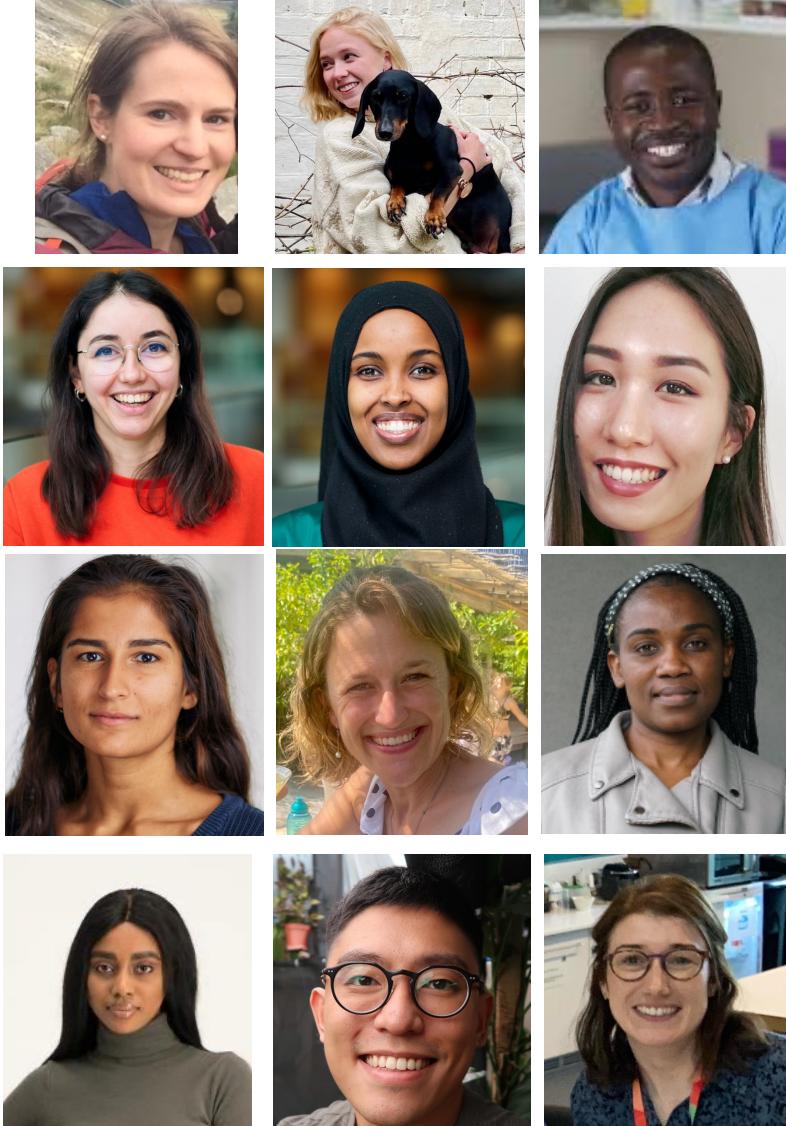
Decentralise services

Develop assertive advocacy

Attract and sustain resources

Leave No One Behind

Acknowledgements



Matthews Group

Motswedi Anderson
Cori Campbell
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Louise Downs
Yu Ri Im
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Tongai Maponga
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Indrajit Ghosh
Stuart Flanagan
Agnes Kemper
Binta Sultan
Joy Ko
Sarah Eisen
Nicky Longley
Pippa Harris
Julian Surey
Al Story
Mike Brown
Jessica Carter
Sally Hargreaves
Mustapha Hacine Bacha



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