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# Liver health screening for Mongolian people in London

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| **Submission date**<br>20/02/2026 | **Recruitment status**<br>Recruiting | [_] Prospectively registered<br>[X] Protocol |
| **Registration date**<br>02/03/2026 | **Overall study status**<br>Ongoing | [_] Statistical analysis plan<br>[_] Results |
| **Last Edited**<br>27/02/2026 | **Condition category**<br>Digestive System | [_] Individual participant data<br>[X] Record updated in last year |

## Plain English summary of protocol

Background and study aims
This study looks at liver health in Mongolian adults living in London. Mongolia has very high rates of chronic viral hepatitis, which can lead to liver scarring and liver cancer. Another condition called MASLD (a type of fatty liver disease linked to risk factors such as diabetes and obesity) is also common worldwide, but little is known about how it affects Mongolian people.
The study aims to understand how common these liver conditions are, what biological factors may be involved, and what helps or stops people from accessing testing and healthcare. The study includes community screening, laboratory research, and interviews to explore people's experiences.

Who can participate?
Any adult aged 18 years or over who identifies as a member of the Mongolian community in London can take part. People must be able to give informed consent.

What does the study involve?
Participants will be invited to attend a community screening event. At the event, they will hear information about liver health in English or Mongolian and will be asked to give consent before taking part.
They will complete a questionnaire about their health and medical history. They will have simple health checks, such as blood pressure, height, weight and waist measurements.
Fingerprick tests will be used to check for hepatitis B and C, HIV and syphilis. A FibroScan test will measure liver stiffness (scarring) and fat. Blood samples will also be taken to confirm results and to check for conditions such as diabetes and high cholesterol.
Some samples will be stored and used for research to understand liver disease better.
A small number of participants may be invited to take part in a onetoone interview to share their experiences and views on screening and healthcare.

What are the possible benefits and risks of participating?
Participants may benefit from learning more about their liver health. If a health problem is found, the study team will help connect them to the right NHS services for further care.
Risks are low. There may be brief discomfort from blood tests or fingerprick tests. All information and samples will be handled securely.

Where is the study run from?
The study is run from the Francis Crick Institute and University College London Hospitals NHS Foundation Trust in London. Screening events will take place in community settings across London.

When is the study starting and how long is it expected to run for?
Recruitment began in September 2025 and is expected to finish in May 2026. The whole study is due to run until January 2028.

Who is funding the study?
The study is funded by the University College London Hospitals Biomedical Research Centre.

Who is the main contact?
The main contact for the study is Professor Philippa Matthews at the Francis Crick Institute philippa.matthews@crick.ac.uk

# Contact information

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Principal investigator

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# Additional identifiers

### Integrated Research Application System (IRAS)
341947

# Study information

### Scientific Title
Viral hepatitis in the Mongolian Community in London: An investigation of epidemiology and burden of disease to inform clinical and public health interventions

### Acronym
Hep-MoLo

### Study objectives
Mongolia has the highest age-standardised incidence of liver cancer in the world, driven by high rates of viral hepatitis. There is little known about metabolic dysfunction-associated steatotic liver disease (MASLD) in Mongolia, but MASLD is another common cause of global liver disease. In addition, focus on community health interventions is increasing with the UK Government's 10 year NHS plan.
Clinical screening domain (part 1):
Among the London Mongolian community, we aim to:
1. Develop community engagement and develop a stakeholder group to support the establishment of a screening and research programme for chronic viral hepatitis infection (hepatitis B virus (HBV), hepatitis C virus (HCV), hepatitis D virus (HDV)).
2. Road-test a liver health community screening programme.
3. Raise awareness of liver health, in particular chronic viral hepatitis (HBV, HCV and HDV) and MASLD.
4. Estimate the prevalence of chronic viral hepatitis (HBV, HCV and/or HDV).
5. Estimate the prevalence of MASLD and presence of cardiometabolic risk factors (obesity, hypertension, diabetes and/or dyslipidaemia).

Laboratory research domain (part 2):
Using data and samples collected from the London Mongolian community attending screening events, we will:
1. Compare lipidomic profiles between:
(i) people living with chronic hepatitis B (CHB) and MASLD,
(ii) people living with CHB only,
(iii) people living with MASLD only,
(iv) “healthy controls” (without liver disease).
2. Generate pilot data to investigate the associations between liver disease and demographic, clinical and laboratory factors (e.g. host immune and lipidomic profile, viral and host human leukocyte antigen (HLA) sequencing), among people living with chronic viral hepatitis.

Qualitative domain (part 3):
Among the London Mongolian community engaging with this programme, we will set out to

understand experiences, attitudes, facilitators, and barriers to:
1. Testing for chronic viral hepatitis and cardiometabolic risk factors,
2.Attending community healthcare screening events,
3. Accessing prompt and sustained healthcare for liver disease e.g. chronic viral hepatitis.

Several secondary objectives are nested within the project. Among the London Mongolian community, we will:
1. Use existing clinical pathways to connect individuals to appropriate local primary and secondary clinical services, namely a General Practitioner (GP) in their area of residence, clinical follow up for blood borne virus (BBV) infection (at Central and North London NHS foundation trust (CNWL) or a local hepatology service according to participant preference), and any other clinical services if other needs are identified.
2. Estimate the prevalence of people living with HIV and/or syphilis.
3. Evaluate linkage-to-care at 3 months and retention-in-care after 12 months among those diagnosed with viral hepatitis infection.

## Ethics approval required
Ethics approval required

## Ethics approval(s)
approved 25/03/2025, London - Brighton & Sussex Research Ethics Committee (Health Research Authority 2 Redman Place Stratford, London, E20 1JQ, United Kingdom; +44 207 104 8000; brightonandsussex.rec@hra.nhs.uk), ref: 25/LO/0126

## Primary study design
Observational

## Secondary study design
Cross sectional study

## Study type(s)

## Health condition(s) or problem(s) studied
Viral hepatitis and metabolic dysfunction-associated steatotic liver disease in Mongolian people in London

## Interventions
The Hep-MoLo protocol was co-designed with Mongolian community members and a multi-disciplinary team, consisting of clinicians, academics and people with lived experience of viral hepatitis. This is an observational, mixed-methods, cross sectional study with three domains:

1. Clinical domain:
Approximately five community-based screening events will be held over a period of 6 months, predominantly on weekends, in line with community preference . At each event, we will provide education and awareness-raising information about chronic viral hepatitis and liver health, available in written format (in English and Mongolian) and from face-to-face discussion, together with explanation of the purpose of the clinical and research activities.
Approviding community-based screening for blood-borne viruses and liver health, describing prevalence and characteristics of liver disease, and collecting relevant clinical metadata via a questionnaire. Following registration and informed consent, participants will be asked to complete a questionnaire to collect data about demographics, past medical history, drug and

social history relevant to viral hepatitis and MASLD. Next, a series of anthropometric measurements (blood pressure, weight, height, waist circumference) and fingerprick point-of-care tests (POCTs - hepatitis B surface antigen, hepatitis C antibody, HIV and syphilis), liver stiffness and controlled attenuated parameter (via Fibroscan) will be performed. Venous blood tests to confirm POCT results, and to screen for dyslipidaemia and diabetes (lipid profile and glycosylated haemoglobin) will be performed.

2. Laboratory research domain:
Laboratory research bloods (serum, whole blood and PAX gene tubed) will be collected and stored at -80 degrees at the Francis Crick Institute. Research analysis will be undertaken including:
(i) HBV sequencing: we will aim to generate full genome HBV sequences from viraemic samples, using an optimised pipeline ('HEP-TILE') which combines PCR amplification, and long-read (e.g. Nanopore) sequencing. We will store samples for possible future sequencing of other viruses (e.g. HIV, HDV, HCV).
(ii) Lipidomic analysis: In collaboration with the Metabolomics Scientific Technology Platform at the Crick, lipids will be extracted from serum samples using a modified Bligh-Dyer method and analysed via Liquid Chromatography-Mass Spectrometry . We will determine the relationship between lipid peripheral profiles and virologic outcomes, liver fibrosis/steatosis.
(iii) Measurement of a panel of host and viral biomarkers pertaining to the development of liver disease, including viral antigens (quantification of HBV antigens including HBsAg, HBeAg, HBcrAg); viral nucleic acids (quantification and/or sequencing of viral DNA / RNA for any hepatitis viruses detected in the sample); ascertainment of host genetic background focusing on the MHC Class I region (HLA genes) which are known to be important determinants of immune response to vaccination and infection, but also generating information on the whole genome to undertake lineage correction.

3. Qualitative domain:
We will perform a semi-structured 1:1 interview of a sample (~15-20) people with and without chronic viral hepatitis to explore the experience of engaging or not engaging with this screening intervention including but limited to acceptability, feasibility and appropriateness of migrant health outreach interventions, as well as potential barriers and facilitators to diagnosis, linkage-to and retention-in-care, stigma and discrimination, and other topics relevant to chronic viral hepatitis diagnosis and health management within migrant communities.

## Intervention Type
Other

## Primary outcome(s)
1. Proportion of people attending the liver screening events who test positive for hepatitis B virus measured using point-of-care hepatitis B surface antigen tests, and confirmatory results of venous blood hepatitis B serology for those who test positive at the time of screening (only one timepoint in the study - cross sectional)

2. Proportion of people attending the liver screening events with MASLD measured using a FibroscanTM controlled attenuation parameter >248dB/m at the time of screening (only one timepoint in the study - cross sectional)

3. Proportion of people attending the liver screening events with pre-diabetes or diabetes measured using a questionnaire to record if they have a known diagnosis and a haemoglobin A1c blood test at the time of screening (only one timepoint in the study - cross sectional)

4. Proportion of people attending the liver screening events with dyslipidaemia measured using a questionnaire to see if they are taking any lipid-lowering medication and/or a lipid profile (assessing for HDL cholesterol <1.3 mmol/l (females), <1.0 mmol/l (males) or triglycerides > 1.7 mmol/l) at the time of screening (only one timepoint in the study - cross sectional)

5. Proportion of people attending the liver screening events with overweight or obesity measured using height and weight to calculate BMI (overweight - >23 kg/m2 for Asian populations) and waist circumference (>90cm males, >80cm females, ethnicity adjusted) at the time of screening (only one timepoint in the study - cross sectional)

6. Proportion of people attending the liver screening events with hypertension measured using a questionnaire to record known diagnoses of hypertension and measuring blood pressure at the time of screening (only one timepoint in the study - cross sectional)

### Key secondary outcome(s))
1. Lipidomic profiles measured using lipdomic analysis at at the time of screening (only one timepoint in the study - cross sectional)

2. Attitudes towards community-based liver health screening measured using qualitative interviews at final Hep-MoLo screening event

3. Linkage-to-care among people diagnosed with viral hepatitis measured using appointment attendance at 3 months post diagnosis

4. Retention-in-care among people diagnosed with viral hepatitis measured using attended at least two appointments since their diagnosis at 12 months post diagnosis

### Completion date
16/01/2028

## Eligibility

### Key inclusion criteria
1. Self-identifying as a member of the Mongolian community.
2. 18 years or older on the day of screening

### Healthy volunteers allowed
Yes

### Age group
Mixed

### Lower age limit
18 years

### Upper age limit
100 years

### Sex
All

**Total final enrolment**
0

**Key exclusion criteria**
Does not have capacity to consent.

**Date of first enrolment**
13/09/2025

**Date of final enrolment**
09/05/2026

# Locations

**Countries of recruitment**
United Kingdom

England

**Study participating centre**
**University College London Hospitals NHS Foundation Trust**
250 Euston Road
London
England
NW1 2PG

# Sponsor information

**Organisation**
University College London

**ROR**
https://ror.org/02jx3x895

# Funder(s)

**Funder type**

**Funder Name**
UCLH Biomedical Research Centre

**Alternative Name(s)**

NIHR University College London Hospitals Biomedical Research Centre, University College London Hospitals Biomedical Research Centre, UCLH/UCL Biomedical Research Centre, NIHR University College London Hospitals BRC, NIHR BRC, UCL, UCLH BRC

### Funding Body Type
Private sector organisation

### Funding Body Subtype
Universities (academic only)

### Location
United Kingdom

# Results and Publications

### Individual participant data (IPD) sharing plan
Sharing of pseudonymised datasets generated and/or analysis during this study will be considered on a case-by-case basis upon request to Philippa Matthews (philippa.matthews@crick.ac.uk), subject to data transfer agreements. De-identified, pseudonomised amples may also be shared with collaborators according to material transfer agreements, in line with ethical approvals and informed consent provided by study participants. Research data will be stored for 10 years after the study ends.

### IPD sharing plan summary
Available on request

### Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Other files | Main study consent form version 2 | 08/04/2025 | 20/02/2026 | No | No |
| Other files | Qualitative study Consent form version 1 | 08/04/2025 | 20/02/2026 | No | No |
| Participant information sheet | Main study | | 20/02/2026 | No | Yes |
| Participant information sheet | Qualitative study version 2 | 08/04/2025 | 20/02/2026 | No | Yes |
| Protocol file | version 1.0 | 16/01/2025 | 20/02/2026 | No | No |