



# Health Protection Research Unit in Blood Borne and Sexually Transmitted Infections

Caroline Sabin



# HPRUs – the background

- Research partnerships between universities and UK Health Security Agency (UKHSA)
- Conduct high quality research that aims to protect the public's health and minimise the health impact of emergencies
- Undertake research on predefined themes
- Funded in three rounds: 2014-2020; 2020-2025; and 2025-2030



UK Health  
Security  
Agency

# HPRUs – the vision

- Create environment in which **world class health protection research (HPR)**, focussed on **needs of the public**, can thrive
- Research to impact on **reduction of health inequalities**, including consideration of interventions for **hard-to-reach groups**
- Focus on areas with **greatest impact on public health**
- Provide **high-quality** HPR evidence to **inform decision making** by public health professionals
- Increase **volume** and **capacity** of **multi-disciplinary** HPR
- **Flexible** staff capacity (in case of major health protection incident)
- **Responsive** research capacity

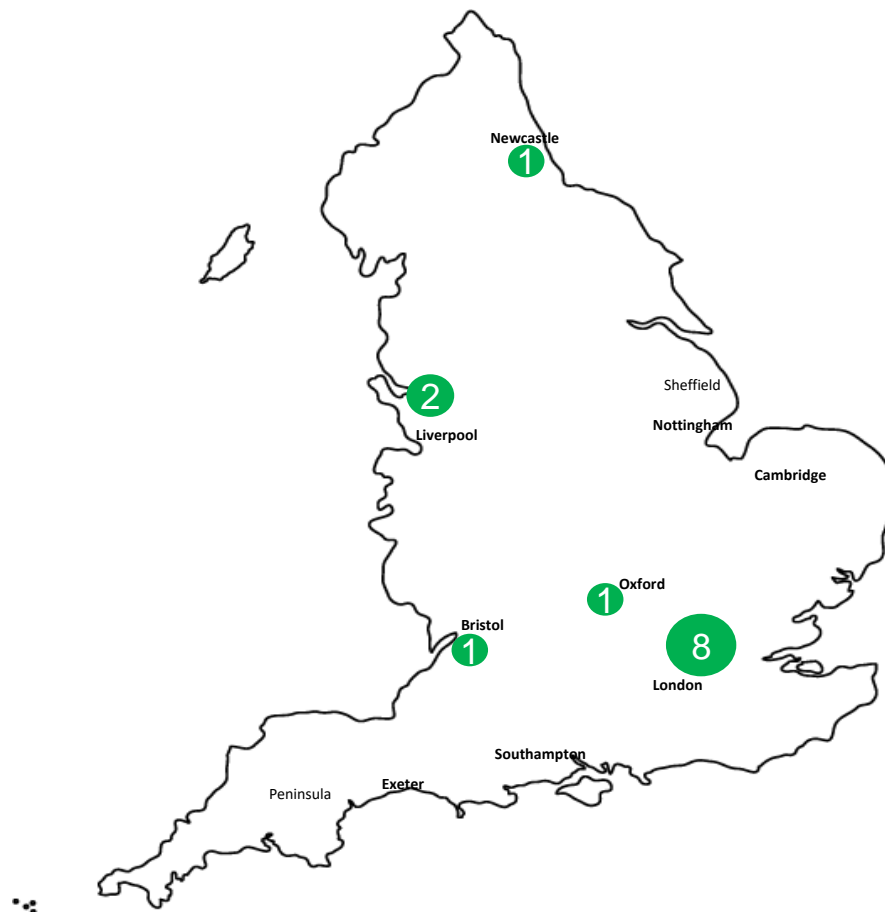
# HPRUs – round 1

## Topic-based priority areas:

- Blood-borne and sexually transmitted infections
- Chemical and radiation threats and hazards
- Emergency preparedness and response
- Emerging and zoonotic infections
- Environmental change and health
- Gastrointestinal infections
- Healthcare associated infections and antimicrobial resistance (x2)
- Health impact of environmental hazards
- Immunisation
- Respiratory infections

## Cross-cutting priority areas:

- Evaluation of interventions
- Modelling methodology



**NIHR**

Health Protection Research Unit in  
Blood Borne and Sexually Transmitted  
Infections at University College London

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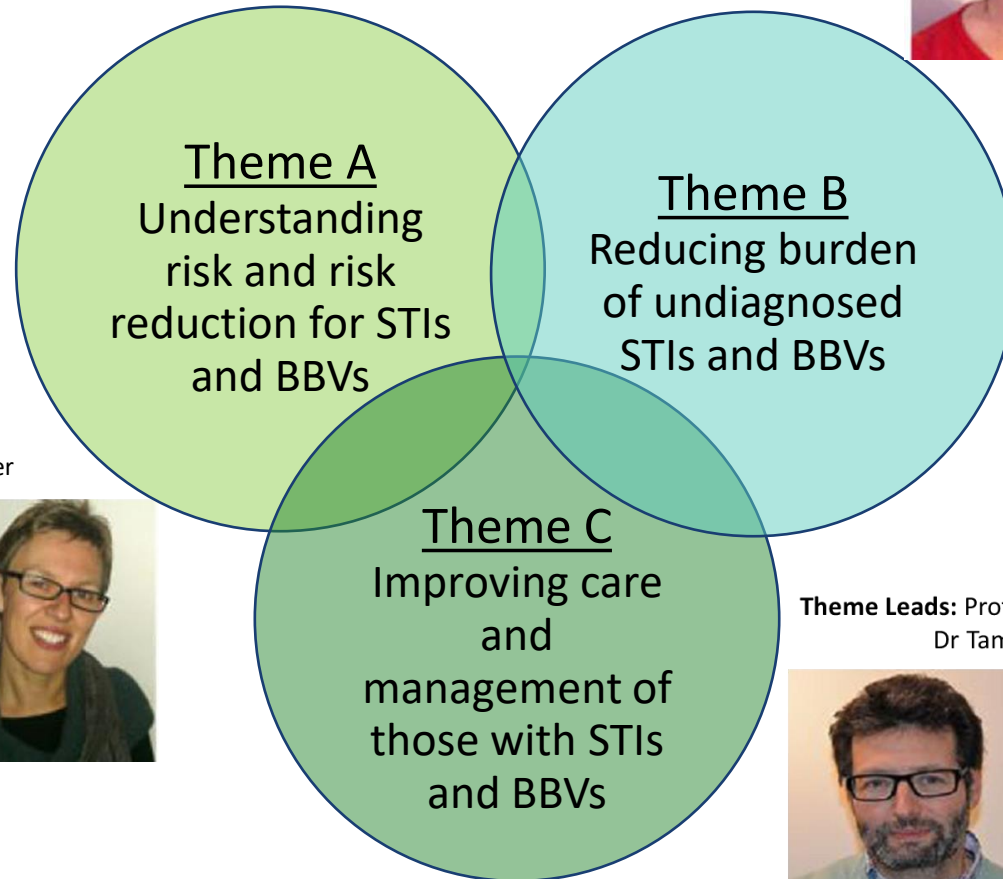
# Health Protection Research Unit in BB&STIs – round 2



**Theme Leads:** Dr Ruth Simmons/  
Prof Greta Rait



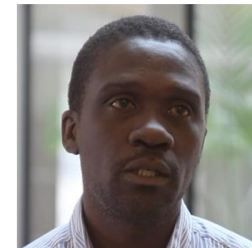
# HPRU core staff



**Theme Leads:** Dr Hamish Mohammed/Prof Cath Mercer

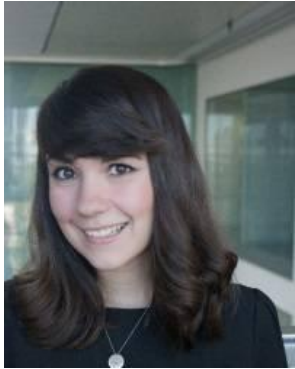


**Theme Leads:** Prof William Rosenberg/  
Dr Tamyo Mbisa



# HPRU '2' – other members

Dr Fabiana Lorencatto  
Health Psychology



Prof Rosalind Raine  
Health Care Evaluation



Dr Rosamund Yu  
PPI/E



Dr Rachael Hunter  
Health Economics



Dr Kirsty Foster



Dr Mamoona Tahir



Health Protection Consultants:

# Supporting PHE's priorities



1. Optimise vaccine provision and reduce **vaccine preventable diseases** in England



2. Be a world leader in tackling **Antimicrobial Resistance (AMR)**



3. Capitalise on emerging technologies to enhance our **data and infectious disease surveillance** capability



4. Eliminate **Hepatitis B and C, Tuberculosis and HIV** and halt the rise in **sexually transmitted infections** in our population



6. Build evidence to address infectious diseases linked with **health inequalities**



7. Embed **Whole Genome Sequencing (WGS)** in PHE labs and optimise the use of WGS-based information



8. Integrate and strengthen England's **Health Protection System**



10. **Define the value generated** by delivering Infectious Diseases Strategy

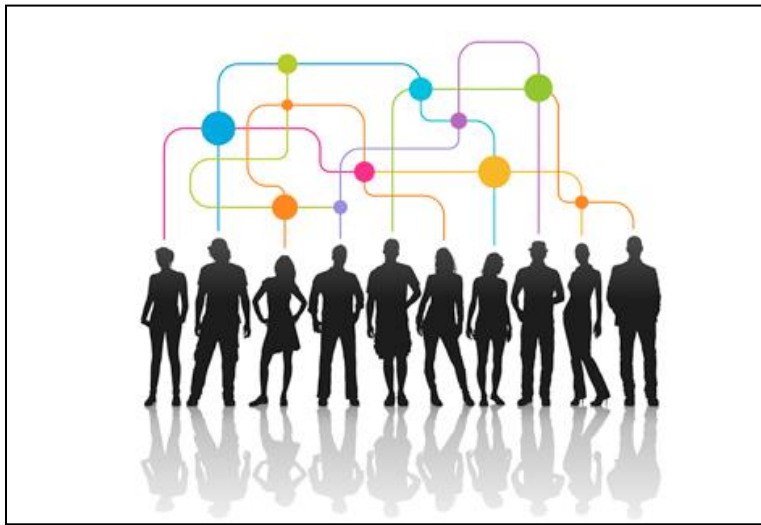


# Theme A: Understanding risk and risk reduction for STIs and BBVs



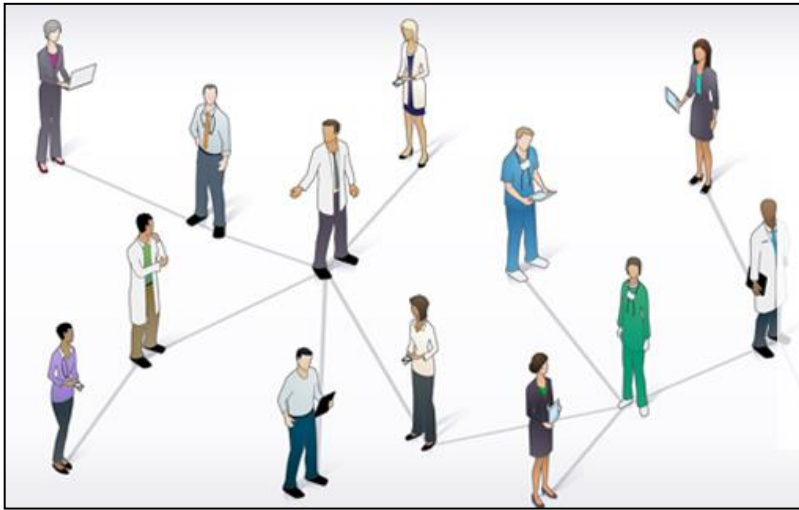
To understand the sociodemographic, behavioural and clinical characteristics of sexual networks, and how they influence and sustain STI/BBV epidemics and the emergence of AMR/AVR, to develop relevant and effective interventions.

# Theme B: Reducing the burden of undiagnosed STIs and BBVs



To develop and evaluate evidence-based STI/BBV interventions and diagnostic/laboratory tools to reach undiagnosed individuals.

# Theme C: Improving the care and management of people with STIs and BBV



To identify, understand and manage factors influencing uptake of healthcare interventions, continuity-in-care and outcomes in persons with STIs/BBVs.

# Theme A: Understanding risk and risk reduction for STIs and BBVs



## BASHH 2020 Annual Conference Award

STI sponsored an award at the [BASHH 2020 Annual Conference](#) for the presentation with the best potential for publication. The winner was Dr Alison Howarth from University College London for her presentation entitled ""Stay at home ...." assessing the impact of lockdown on sex and service use among MSM in the UK". Congratulations!

STI is an official journal of the [British Association of Sexual Health and HIV \(BASHH\)](#). All members

BASHH membership is open to medical practitioners, nurses, health advisers, scientists in the specialty or an allied field.



Public Health  
England

Protecting and improving the nation's health

**The impact of the COVID-19 pandemic on prevention, testing, diagnosis and care for sexually transmitted infections, HIV and viral hepatitis in England**

Provisional data: January to September 2020

Natsal-COVID study  
preliminary findings  
webinar

Monday, 30th  
November  
2020  
1400-1600  
GMT




How has sexual and reproductive health in Britain been affected by the pandemic?



# Theme C: Improving the care and management of people with STIs and BBV

*Clinical Infectious Diseases*

**MAJOR ARTICLE**



## Outcomes of Coronavirus Disease 2019 (COVID-19) Related Hospitalization Among People With Human Immunodeficiency Virus (HIV) in the ISARIC World Health Organization (WHO) Clinical Characterization Protocol (UK): A


Anna Maria Geretti,<sup>1,2</sup> Alexander J. Stockdale,<sup>3</sup> Annemarie Docherty,<sup>8,9</sup> Ewen M. Harrison,<sup>8</sup> Malcolm G Semple<sup>1,14</sup>

<sup>1</sup>National Institute for Health Research (NIHR) Health Protection Research Unit in Health and Life Sciences, University of Liverpool, Liverpool, United Kingdom, <sup>2</sup>Division of Infection and Global Health, Liverpool, United Kingdom, <sup>3</sup>Mortimer Market Centre, Central and North West London, Brighton and Sussex Medical School, University of Brighton, Brighton, United Kingdom, <sup>8</sup>Intensive Care Unit, Royal Infirmary Edinburgh, University of Edinburgh, Edinburgh, United Kingdom, <sup>12</sup>United Kingdom, and <sup>14</sup>Respiratory Medicine, Institute of

**Background.** Evidence is conflicting regarding the impact of COVID-19. We compared the pres

### Potential impact to health

Concern	N	%
HIV appointments cancelled (no alternative arranged)	41	13%
Other scans or tests cancelled	107	35%
No confidential setting at home for virtual appointment	30	10%
Not have enough data/digital devices to use remote services	14	5%

**Alex Sparrowhawk**  
UK Community Advisory Board, London, UK

# HPRU highlights


- Academic publications
  - 130+ **published papers**, 180+ **presentations** at national/international conferences
- HPRU Academy
  - 14 funded/affiliate students
- Contribution to development of a new cadre of public health practitioners as well as supporting the wider economy
- Links with other NIHR infrastructures (including other HPRUs)
  - NIHR HIV Bio-Resource
  - NIHR HPRUs (Behaviour Science and Evaluation, Genomics and Enabling Data, Gastrointestinal infections, Immunisation)
  - Other NIHR-funded studies: Natsal; EPIToPe; PrEP Impact trial
  - NIHR Biomedical Research Centre (BRC) and NIHR ARC North Thames
- Income generation through grant and fellowship funding



# HPRU highlights


McDonagh et al. *Implementation Science* (2018) 13:130  
<https://doi.org/10.1186/s13012-018-0821-y>

Implementation Science

Open Access 


**SYSTEMATIC REVIEW**

Application of the COM-B model to barriers and facilitators to chlamydia testing in general practice for young people and primary care practitioners: a systematic review

Lorraine K McDonagh<sup>1,2\*</sup> , John M Saunders<sup>2,3</sup>, Jackie Cassell<sup>2,4</sup>, Tyrone Curtis<sup>5</sup>, Hamad Bastaki<sup>1</sup>, Thomas Hartney<sup>1,2</sup> and Greta Rait<sup>1,2</sup>


Aicken et al. *BMC Health Services Research* (2019) 19:668  
<https://doi.org/10.1186/s12913-019-4396-3>

BMC Health Services Research

Open Access 


**RESEARCH ARTICLE**

Pathways to, and use of, sexual healthcare among Black Caribbean sexual health clinic attendees in England: evidence from cross-sectional bio-behavioural surveys

Catherine R. H. Aicken<sup>1,3,4\*</sup> , Sonali Wyal<sup>1,3</sup>, Paula B. Blomquist<sup>2,3</sup>, Stella M. Fabiane<sup>1,3</sup>, Makeda Gerressu<sup>1</sup>, Gwenda Hughes<sup>2,3,5</sup> and Catherine H. Mercer<sup>1,3</sup>


Francis-Graham et al. *BMC Health Services Research* (2019) 19:152  
<https://doi.org/10.1186/s12913-019-3970-z>

BMC Health Services Research

Open Access 

**RESEARCH ARTICLE**

Understanding how, why, for whom, and under what circumstances opt-out blood-borne virus testing programmes work to increase test engagement and uptake within prison: a rapid-realist review

Seth Francis-Graham<sup>1,6,7\*</sup> , Nnenna Adaniya Ekeke<sup>2</sup>, Corey Andrew Nelson<sup>3</sup>, Tin Yan Lee<sup>3</sup>, Sulaima El Hajj<sup>2</sup>, Tim Rhodes<sup>4</sup>, Cedilia Vindrola<sup>5</sup>, Tim Colbourn<sup>6</sup> and William Rosenberg<sup>1,2,7</sup>

# Responsive research – recent examples

- Sentinel HAV seroprevalence survey among MSM at GUM clinics  
Initiated following national HAV outbreak in MSM - will allow monitoring of impact of vaccination recommendations on MSM
- Unlinked anonymous HBV testing in at-risk populations for HIV  
Initiated following outbreak of A2 strain of HBV in MSM who identify as heterosexual – will allow
- Intention to re-test and uptake for chlamydia  
Added in response to findings from the National Chlamydia Screening Programme – will identify factors associated with intentions to retest and uptake of testing
- Analyses of RiiSH survey to support Syphilis Action Plan  
Added in response to outbreak of syphilis in MSM in 2018
- Gay Men’s Sexual Health Survey  
Added to support annual/bi-annual surveys of sexual behaviour of MSM socialising in gay bars/clubs in Inner London



# Creating impact - examples

- **Evidence review/workshop for HCV**
  - increased local-level momentum for networks
- Standardised **models-of-care for HCV in prisons**
  - improved HCV testing uptake and linkage-to-care
- Local-level **HCV data dashboards**
  - increased availability of real-time data on testing, diagnoses and treatment in multiple settings across the ODNs
- Results from **Rapid Risk Assessment Study**
  - informed study on use of social media apps for health promotion among MSM;
  - allowed development of recommendations for improving sexual health among MSM and those of Black Caribbean heritage
- **Genomic clustering tool** to identify Shigella outbreaks in real-time
  - informed public health response to Shigella outbreaks in England



# Health Protection Research Unit in BB&STIs – round 3



# HPRUs – then

## **Topic-based priority areas:**

- Blood-borne and sexually transmitted infections
- Chemical and radiation threats and hazards
- Emergency preparedness and response
- Emerging and zoonotic infections
- Environmental change and health
- Gastrointestinal infections
- Healthcare associated infections and antimicrobial resistance (x2)
- Health impact of environmental hazards
- Immunisation
- Respiratory infections

## **Cross-cutting priority areas:**

- Evaluation of interventions
- Modelling methodology

# HPRUs – then and now...

## Topic-based priority areas:

- Blood-borne and sexually transmitted infections
- Chemical and radiation threats and hazards
- Emergency preparedness and response
- Emerging and zoonotic infections
- Environmental change and health
- Gastrointestinal infections
- Healthcare associated infections and antimicrobial resistance (x2)
- Health impact of environmental hazards
- Immunisation
- Respiratory infections

## Cross-cutting priority areas:

- Evaluation of interventions
- Modelling methodology

## Topic-based priority areas:

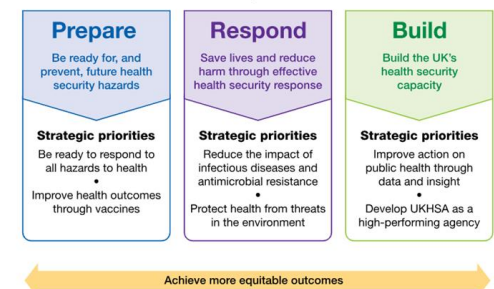
- Blood-borne and sexually transmitted infections
- Chemical threats and hazards
- Radiation threats and hazards
- Emergency preparedness and response
- Public Health Genomics
- Emerging zoonoses
- Climate change and Health Security
- Gastrointestinal infections
- Healthcare associated infections and antimicrobial resistance
- Vaccines and immunisation
- Respiratory infections

## Cross-cutting priority areas:

- Evaluation and Behavioural Science
- Health Analytics and Modelling

# Main changes from HPRU 2

- New **theme structure**, with staff working across themes to enhance **inter-theme working**
- **Co-leadership** of all themes and shared leadership roles
- **Leadership opportunities** for Early Career Researchers supported by **mentoring group**
- **Multi-disciplinary research teams**
  - focus on social science to support existing quantitative, clinical and laboratory teams
- Balanced portfolio of research across **range of pathogens**
- Greater focus on **co-production**
- Partnerships with **community groups/third-sector organisations**



# Our new themes

## **A: Understanding factors that affect uptake & outcomes of interventions to prevent/diagnose/treat STIs/BBVs (Mohammed/Bailey)**

**Overarching aim:** to generate high-quality insights into the barriers and facilitators to existing and novel preventative, diagnostic and therapeutic interventions

## **B: Investigating potential impact of novel strategies for STI/BBV control (Bradshaw/Fearon)**

**Overarching aim:** join multiple data sources to investigate potential impact of novel BBV/STI control strategies, across combinations of testing programmes, vaccination, pre and postexposure prophylaxis treatment and different delivery strategies.

## **C: Using evidence to develop and deliver efficient, sustainable and equitable services (Burns/Mitchell)**

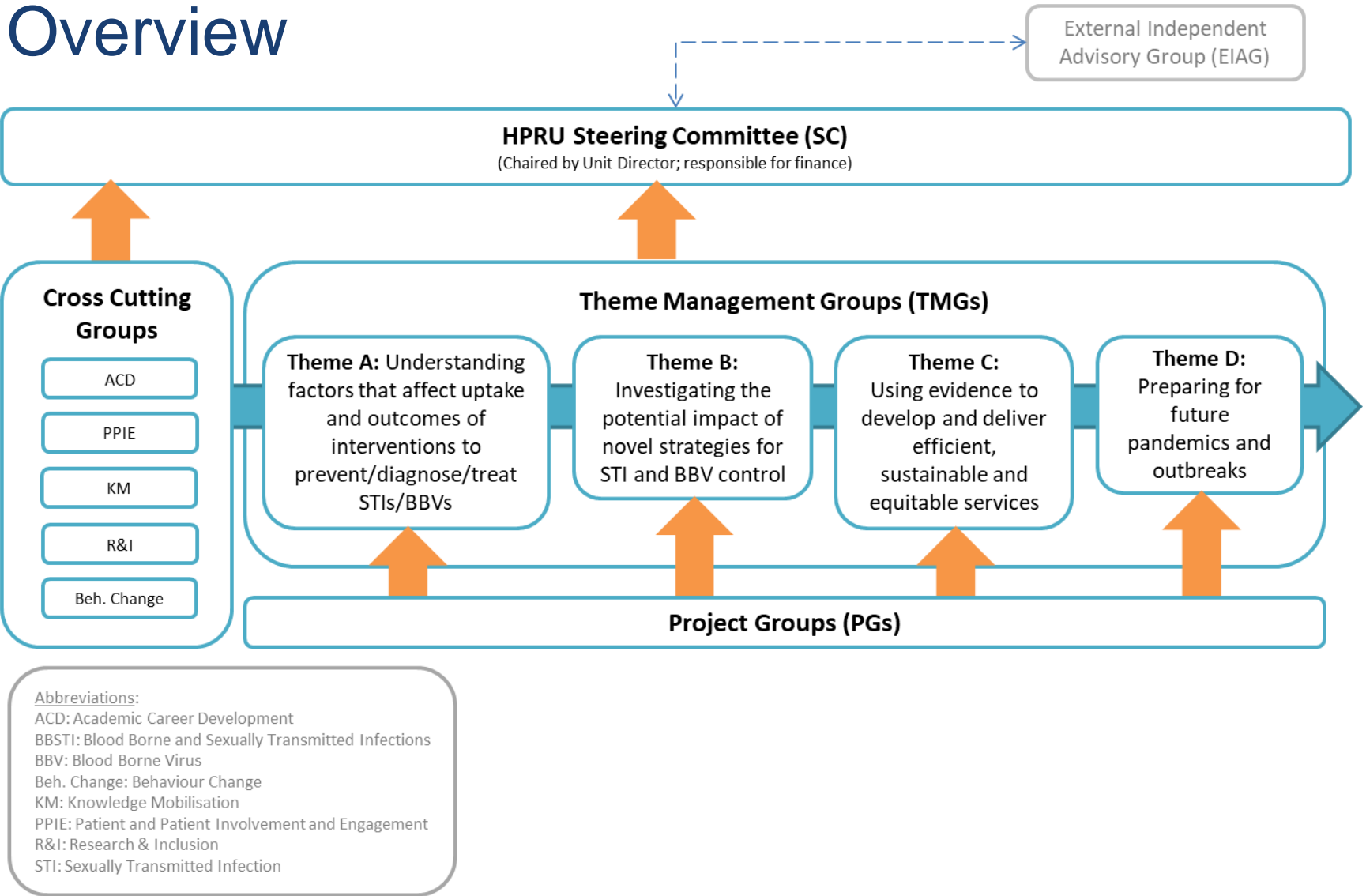
**Leads:** Fiona Burns and Holly Mitchell

**Overarching aim:** to optimise use of evidence to support the development, monitoring and evaluation of efficient and sustainable services, by understanding where there is unmet need, how, where, and why people access services, and how services can adapt to meet different needs

## **D: Preparing for future pandemics and outbreaks (Tariq/Hughes)**

**Overarching aim:** to establish networks, procedures and systems to respond to emerging infectious disease threats in a rapid and agile way

# Overview



# Strategic partners





# Next steps...

- Will start on 1<sup>st</sup> April 2025
- Contracts in progress, job descriptions being revised
- Finalisation of projects for first 1-2 years – by summer
- PPIE, R&I, ACD strategies – agreed within 6 months
- Develop PhD proposals and identify training needs (at UKHSA, UCL and externally)
- Expand current PPIE community advisory panel to include those with an interest in BBVs

# Keep in touch!



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