# CASA0007 Research Proposal

Student Number: 22186878

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* Proposed research question

How are levels of unmet HIV pre-exposure prophylaxis (PrEP) need associated with regional characteristics in England?

* Bibliography (single source inspiration paper)

Hammoud, M.A., et. al., 2019. HIV Pre-exposure Prophylaxis (PrEP) Uptake Among Gay and Bisexual Men in Australia and Factors Associated With the Nonuse of PrEP Among Eligible Men: Results From a Prospective Cohort Study. JAIDS Journal of Acquired Immune Deficiency Syndromes 81, e73. <https://doi.org/10.1097/QAI.0000000000002047>

* Description of source

The source paper is an observational study of HIV PrEP uptake and retention patterns among Gay and Bisexual Men (GBM) in Australia, during the period of inclusion of the medication on the public-subsidised pharmaceuticals scheme. The study identifies age, residential region (state), and social engagement with other GBM as key factors associated with the uptake of PrEP, among others.

* Explanation of value of research question (with reference to paper)

PrEP was made available as a publicly subsidised medication in England through the NHS in 2020. Given that regional variation in access was identified as an independent factor in PrEP uptake in Australia, and both countries have only recently made the subsidised medication available nationwide, there is reason to believe that a similar pattern may be evident in the UK. This has implications for health equity and identifying areas of greatest need for PrEP access and education.

* Summary of methods that may be applied
* Descriptive statistics and correlation between variables
* Regression modelling to identify which variables (e.g. regional demographics, service funding, social characteristics) are potential determinants of PrEP uptake
* Possibly a system dynamics model of PrEP uptake over time (using annual data – could base off SIR type model)