

Scottish employers supporting staff mental health: data challenges

[PHO data](#) inspired the topic but is not intended to answer research questions, so this poster is not a criticism of the PHO. Instead, it used the PHO “**population prescribed drugs for anxiety/depression/psychosis**” as a starting point for reflection on data challenges in this topic.

Reproducibility

- PHO data is for ‘anxiety/ depression/ psychosis’, based on prescriptions but does not define which drugs fall into this scope²
- PHO data is described as ‘estimated’ but the estimation method is undefined²
- **Unreproducible data/methods make for unverifiable research conclusions**

Standardisation

- PHO data is about prescriptions, not diagnoses, this must be matched if merging data across the UK
- PHO data is about drug prescriptions so excludes non-drug treatments such as Cognitive Behavioural Therapy
- **Data must be understood and defined precisely to enable appropriate tracking, comparison, merging, etc.**

Bias

- PHO data is from the Prescription Information System, which excludes hospital and prison dispensing¹
- Prescription data cannot represent undiagnosed/ unprescribed cases, which may be more prevalent in demographic groups where poor mental health is taboo³
- **Conclusions should not be applied beyond the limits of the population represented by the data**

Multimodality

- Genetic, demographic and comorbid factors impact mental health
- Employers’ internal data (e.g. absence rates) is not available externally
- Ethically, data amalgamation should not be for a ‘fishing expedition’; it should pursue a specific question
- **Conclusions rich enough to inform actions are rarely generated from a single dataset**

Sharing

- Employers extend beyond Scotland so there is an anticipatable need to share data across jurisdictions
- Prescription data is a candidate for inclusion in Data Safe Havens
- **Researchers have a duty to enable value to be derived beyond their own research question; requires comprehensive metadata, code commenting, data dictionaries, use of Data Safe Havens, advocacy**

References: 1 Public Health Scotland, (2023). *Prescriptions in the community*. Available from: <https://www.opendata.nhs.scot/dataset/prescriptions-in-the-community> [Last accessed 04/12/23]

2 Public Health Scotland, (2023). *Population prescribed drugs for anxiety/depression/psychosis*. Available from: https://scotland.shinyapps.io/ScotPHO_profiles_tool/ [Last accessed 04/12/23]

3 MacPherson, (2023). *Opinion: Existing mental health stigma still a barrier to health equality*. Available from: <https://www.rgu.ac.uk/news/news-2023/6465-opinion-existing-mental-health-stigma-still-a-barrier-to-health-equality> [Last accessed 04/12/23]