Sharing aggregate data?
Robust anonymization through privacy-preserving techniques.

INTRO:
• The official OMOP CDM guidelines can prevent the re-identification of patients stored in the databases.
• However, literature has shown that procedures that omitted key identifiers are not robust anonymisation procedures.

METHODS
• k-Anonymity limits the information released, based on generalisation and suppression of data concepts, as well as the number of repetitive elements.
• l-Diversity technique was proposed aiming to fill some gaps of the k-anonymity model.
• These techniques can be applied to the OMOP CDM schema requiring the characterisation of each field.
• When sharing a sample of the database, these techniques increase the anonymization levels.

RESULTS
• We only considered some tables of the OMOP CDM.
• Tables in the groups “Standardized vocabularies”, “Standardized health economics”, “Standardized derived elements” and “Standardized metadata” were omitted.
• Key attributes, quasi-identifiers and sensitive attributes were mapped to apply the privacy-preserving techniques.