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## **Developing Electronic Health Records Databases for Mental Health Research**

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Mental health records are increasingly kept in fully electronic format. This offers potentially transformative research opportunities because of both the very large samples and the depth of the data contained. However, there are clearly substantial challenges in ensuring both adequate anonymity and robust governance for these sensitive data. In addition, the depth of information is often not exploited because most of this is contained in text rather than structured fields. Natural language processing (NLP) offers a potential solution to this, but NLP application in health records data is in its infancy. The Clinical Record Interactive Search (CRIS) application will be discussed, which was developed at the Maudsley Hospital in south London and which offers a robust and patient-led de-identification and governance model for records-based research. NLP applications have now been developed which comprehensively profile a range of symptoms, interventions and outcomes in routine mental healthcare, providing both breadth (250,000 cases) and depth of information, and supporting both novel research output and decision support for clinical services.