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occurrences using digital technologies and therapeutics. This will be contextualised around novel public health approaches.

**Results:** We will describe 11 protypes as part of a £5 million UK inititiative. The themes will include:

- Use of discrete digital technology for easy use by people who use drugs in clinical and non-clinical settings
- Simple alert / responder pathways that created effective responses to potentially fatal overdose events
- Enhance innovative therapeutics as antidotes to overdose episodes
- Novel public health approaches

**Conclusion:** The use of remote monitoring devices like wearables and smartphone applications, paired with artificial intelligence and innovative therapeutics is an emerging field of research. This needs to be balanced around novel public health approaches.

Disclosure of Interest: None Declared

#### SP0012

## A study exploring regional level predictors of suicide rates across time in Sweden

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### **Abstract**

**Introduction:** In Sweden, four lives are lost to suicide each day. Hence, identifying relevant risk factors to inform effective prevention strategies is key. Such strategies can range from individual ('micro') -level prevention methods, to broader national suicide prevention policies.

Objectives: Whilst a range of studies have explored individual-level risk factors, highlighting municipal, regional, or national-level predictors can be valuable to identify broader social and contextual determinants. This study will therefore aim to go beyond proximal predictors of suicide by looking through a wider national- and regional-level lens in Sweden.

Methods: This project will be conducted utilizing routinely collected and publicly available data and applying longitudinal modelling to investigate potential predictors of changes in suicide rates across time in Sweden. More specifically, the study will explore whether regional data on economic (e.g. proportion of state benefit recipients), socio-demographic (e.g. educational level) and healthcare related variables (e.g. trust in the healthcare system) are associated with suicide rates over time.

**Results:** This is an ongoing project and results will be available and presented at the time of the conference.

Conclusions: Utilizing publicly available data to explore potential predictors of suicide rates is not only cost-effective, but adding such findings to existing knowledge of individual-level risk factors can also be important when targeting wider policy and ensuring effective coordination and implementation of regional suicide prevention strategies.

Disclosure of Interest: None Declared

### SP0013

# How good is the clinical diagnosis in schizophrenia? Reliability and validity

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Abstract: Several changes to the classification of mental disorders have been made during the past half century to increase the reliability, clinical use and validity of the diagnostic classification. Despite the high expansion of knowledge about mental disorders, understanding of their components and processes still requires fine-tuning. This symposium identifies key issues on different classification systems with different purposes relevant to understanding and classifying mental disorders. We discuss how key issues such as ICD-11, RDoC or Biomarkers correspond or diverge because of their different purposes, and constituencies. Although these approaches have varying degrees of overlap and distinguishing features, they share the goal of reducing the burden of suffering due to mental disorder.

Disclosure of Interest: None Declared

#### SP0014

## A Case of Electroencephalography and Machine Learning in Early Diagnosis of Psychotic and Affective **Disorders**

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**Abstract:** Electroencephalography (EEG) serves as a non-invasive, cost-effective, and robust tool, directly measuring in-vivo neuronal mass activity with high temporal resolution. Using state-of-the-art machine learning techniques, EEG recordings have the potential to generate in silico biomarkers for severe mental disorders. In this study, we developed EEG-based classification models for schizophrenia and depression taking into account physiological and pathological aging processes.

From a cohort (N=735, 51.6% male) that is acquired in LMU Hospital, Department of Psychiatry and Psychotherapy, comprising healthy control individuals (HC, N=245) and patients with schizophrenia (SCZ, N=250) or major depressive disorder (MDD, N=240), we extracted power spectrum density and connectivity measures based on 60 second resting-state EEG recordings with 19 channels. The support vector machine models were trained to 1) classify patients with SCZ or MDD and HC individuals, and 2) predict age in HC individuals using ten-by-ten repeated nestedcross validation. The age-predicting model was applied to patient groups to calculate EphysAGE (Electrophysiological Age Gap Estimation) by subtracting chronological age from chronological age. The links between diagnosis, medication, and EphysAGE,