

## Which best predicts suicides in Northern Ireland - self-rated mental health or medication record?

Onyeka, I<sup>1\*</sup>, Maguire, A<sup>1</sup>, and O'Reilly, D<sup>2</sup>

<sup>1</sup>UKCRC Centre of Excellence for Public Health (Northern Ireland), Centre for Public Health, Queen's University Belfast, UK

<sup>2</sup>Administrative Data Research Centre Northern Ireland, Centre for Public Health, Queen's University Belfast, UK

### Background

Over 800,000 suicides occur annually worldwide, and approximately 300 suicides in Northern Ireland (NI) each year. Studies from elsewhere have highlighted the role of mental health in the risk of death by suicide, but such studies are scarce in NI.

versus medication record) best predict risk of death by suicide could be used to inform future studies on suicide risk and to identify groups for targeted interventions.

### Objectives

This project seeks to: (1) examine the association between mental health and death by suicide during 2011–2015, and (2) assess if self-rated mental health, medication record, or both better predict risk of death by suicide.

### Methods

De-identified information will be drawn from 2011 Census on NI's 1.8 million residents, linked to the Business Service Organisation's Health Card Registration data, the Enhanced Prescribing Database (EPD) and death registrations. Subjects' mental health will be ascertained through single-item self-rated mental health question from the Census and/or record of psychotropic medication in the EPD. Data captures over 1,100 suicides over 5 years (main causes of death defined as ICD-10 codes X60–X84, Y10–Y34, Y87). Cox proportional hazard models will be used to examine the association between mental health and death by suicide (adjusting for age, gender, comorbid physical disorders, socio-economic status). The performance of prediction models of death by suicide, including self-rated mental health or prescribed medication record or both, will be compared. Data are with the Administrative Data Research Centre – NI, with data analysis underway.

### Findings

This study will yield information beneficial for policy-making regarding suicide prevention and identifying "œat risk" groups. Understanding which measures of mental health (self-rated

\*Corresponding Author:

Email Address: [i.onyeka@qub.ac.uk](mailto:i.onyeka@qub.ac.uk) (I Onyeka)

