# Scottish Government Health Directorates Chief Scientist Office



# FOCUS ON RESEARCH

USING RECORD LINKAGE ANALYSIS TO INFORM THE DEVELOPMENT OF AN IMPROVED CARE PATHWAY(S) FOR PSYCHIATRIC AND SELF-HARM EMERGENCIES CURRENTLY TRANSFERRED BY AMBULANCE TO EMERGENCY DEPARTMENTS.

#### Researchers

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#### Aim

We looked at what happened to people seen by the ambulance service (SAS) for a psychiatric or self-harm emergency in Scotland in 2011. We wanted to understand what happened to them and what their health outcomes were. This information will help to improve care, access to specialist mental health services and reduce unnecessary Emergency Department attendance for these people.

## **Project Outline/Methodology**

We analysed patient records that linked ambulance, Emergency Department and hospital data. We presented this information to key groups of people at a workshop and asked them to discuss how services could be improved on the basis of the information provided.

## **Key Results**

Over a 12 month period 9014 calls were made by 6802 people. Over half (n=5,569, 62%) of the calls attended by the SAS were either left at home (n=1003, 11%) or discharged from an Emergency Department with no known follow-up (n=4566, 51%).

Two hundred and forty people died >1 day and <1 year after initial SAS attendance. One in four of these people died by suicide (n=59; 25%), of whom almost half (n=27; 46%) had previously been left at home by the SAS or discharged from ED with no known follow-up.

Most people (n=5,624, 83%) made one psychiatric emergency/self-harm related call in the one year. Seven hundred and thirty-nine people (11%) made two calls. Twenty-one people made nine or more calls. People who self-discharged from Emergency Department were more likely to make another psychiatric/self-harm ambulance call within a year. It is difficult to compare ambulance clinicians' assessments with subsequent medical diagnoses and Emergency Department triage levels. Professionals and people with lived experience of mental illness who attended the workshop found the data useful in helping them consider alternative care pathways and interventions.

### **Conclusions**

In total 59 (1%) of the people studied died by suicide more than 1 day but within 12 months of their initial presentation to the ambulance service. This represents about 8% of all people who died by suicide in Scotland within the same time period. There are clear opportunities to improve care and outcome by putting into practice suicide prevention strategies in pre-hospital and Emergency Department settings. Workshop members thought that using the analysis of linked health records to help key stakeholders develop evidence-based interventions was a good idea. This method is likely to be helpful for other pre-hospital patient populations where there is little information on patient outcomes.

## What does this study add to the field?

As far as we are aware this is the first analysis of linked ambulance, Emergency Department, and hospital patient records of psychiatric emergencies or self-harm. It provides important information on the numbers of people making psychiatric self-harm related calls and their care pathways and outcomes.

#### **Implications for Practice or Policy**

The potential for ambulance services to provide suicide prevention strategies has been largely overlooked in Scottish suicide prevention policy to date. Targeting interventions in ambulance and Emergency Department settings offers a promising opportunity to reduce levels of suicide and distress, and to build resilience for people who habitually self-harm. The processes and outcomes of people who call an ambulance and/or attend an Emergency Department due to a psychiatric emergency or episode of self-harm should be improved.

#### Where to next?

We will use the study findings to develop a research programme that will develop and evaluate interventions to reduce suicide, psychiatric and self-harm related distress, build resilience for people who habitually self-harm, and reduce unnecessary Emergency Department activity. We will continue to engage with the Mental Health Foundation and other groups to inform all development and evaluation.

#### **Further details from:**

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