

used as a key tool in the phased approach to scale up mental health services and reduce the treatment gap on a regional-national-subnational level, as a capacity building tool for a wide range of health professionals and para-professionals, and for developing and updating undergraduate and postgraduate curricula for health professionals. It has also been used to scale up mental health response in emergency settings^{7,8}.

The WHO has incorporated feedback and recommendations from international experts as well as latest evidence in the field to update the mhGAP-IG and has now released the mhGAP-IG Version 2.0⁹. The key developments include: content update in various sections based on new evidence; design changes for enhanced usability; a streamlined and simplified clinical assessment that includes an algorithm for follow-up; inclusion of two new modules (Essential Care and Practice, and Implementation), and revised modules for Psychoses, Child and Adolescent Mental and Behavioural Disorders, and Disorders due to Substance Use. An interactive electronic version of the mhGAP-IG is currently under development and will have benefits in terms of increased ease of use, added functionality and cost savings.

The inclusion of mental health and substance abuse in the Sustainable Development Goals (SDGs) at the 70th Session of the United Nations General Assembly in September 2015 has paved the way for mental health to be integrated into the broader development plans of countries over the next 15 years. There is now fresh impetus for countries to provide sufficient financial and human resources for mental health care; improve access to care for people with mental illness and their families; and integrate mental health care across different sectors such as social, education and employment, and implement community programmes. In order to initiate a collaborative, multisectoral commitment to put the mental health agenda at the centre of global health and development priorities, the

World Bank Group and WHO co-hosted the Out of the Shadows: Making Mental Health a Global Priority meeting in April 2016, that emphasized the cross-cutting nature of mental health issues and the need to integrate mental health services into general health systems¹⁰.

To realize the goal of universal health coverage, it is essential for health care providers and planners to maximize efforts to scale up care for people with MNS disorders, and the mhGAP-IG Version 2.0 will be a valuable tool to facilitate this process.

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Causes and predictors of premature death in first-episode schizophrenia spectrum disorders

As highlighted by the Forum in the February 2017 issue of this journal¹, patients with schizophrenia spectrum disorders have significantly higher risk of premature death due to suicide and physical illness; their expected reduction in life expectancy is 10-20 years²⁻⁴. Since the disorders affect 2-3% of the population, with peak onsets in early adulthood, their impact on public health is considerable⁵.

We report findings from a 10-year prospective study of 281 patients with DSM-IV schizophrenia spectrum disorders recruited consecutively at first treatment in four Nordic catchment areas over four years. They were assessed during their first week of treatment, with follow-ups after one, two, five and ten years^{6,7}. Data were linked to the central registries of persons and causes of death at Statistics Norway and Statistics Denmark. Information about two- and ten-year average age-

specific mortalities was used to compute cause-specific expected numbers of deaths. Crude standardized mortality ratios (SMRs) were calculated as observed deaths/expected deaths.

Thirty-one participants (11%) were dead at follow-up (SMR 11.56; 95% CI: 7.86-16.42). Sixteen (6%) died by suicide (SMR 46.50, 95% CI: 26.58-75.51); seven (2.5%) by accidental overdoses or other accidents, and eight (2.8%) from physical illnesses, including three (1%) from cardiovascular illness. Time to death was significantly shorter in those who committed suicide compared to the two other groups (mean 1,274 ± 1,032 days vs. 2,706 ± 1,046 days for accidents and 3,000 ± 792 days for natural deaths, $p < 0.001$). Six (37.5%) of those who died by suicide did so within the first two years (two-year SMR estimate 81.91, 95% CI: 30.05-178.28). Only one accident and no natural deaths occurred in this period.

All-cause mortality was higher for men than for women. Univariate analyses showed that those alive at the ten-year follow-up were significantly older at baseline compared to those who died by suicide, and significantly younger than those who died from other reasons. Those alive had significantly shorter duration of untreated psychosis (DUP), lower baseline rates of drug and alcohol misuse, longer education and higher employment than those with all-cause deaths.

There were no significant associations with baseline clinical symptoms or lifetime/current measures of depression/suicidal behaviors and no significant between-group differences in time to first remission or time being psychotic or in treatment during the first two years (including length/dosage of antipsychotic medication and number/length of hospital admissions). Measures of depression and suicidal behavior at last follow-up were, however, significantly higher in those who died by suicide.

A multinomial logistic regression analysis indicated significant influences of lower age, longer DUP and baseline alcohol misuse on increasing risk of death by suicide; and of higher age, longer DUP and baseline drug misuse on increasing risk of death from other reasons. Kaplan-Meier survival analyses showed that long DUP and baseline substance misuse (alcohol + drugs) were significantly increasing risk of all-cause mortality (Mantel-Cox $\chi^2(3)=36.98$, $p<0.001$), with a significant contribution of substance misuse also after removing overdose deaths.

Our results confirm previous findings of high mortality rates in patients with schizophrenia spectrum disorders. We clearly demonstrate for the first time that long DUP is a significant risk factor for all-cause mortality, including suicides, accidents and physical illnesses. Long DUP can in this context best be seen as a marker of problematic help-seeking behaviors, in line with recent register studies reporting that patients with schizophrenia dying from physical illnesses enter treatment late⁸.

That substance use diagnoses increase risk of premature death in patients with severe mental disorders has been demonstrated previously⁹. We here show that also substance use below the diagnostic threshold for use disorders is a risk factor. The strong association between baseline substance misuse and all-cause mortality is striking. This can be based in shared underlying risk factors for suicide, including impulsivity, emotion regulation difficulties and interpersonal problems. The effects of substances during intoxication can also increase impulsive behavior and lack of self-care, adding to risks for accidents or physical illnesses.

The two-year SMR estimate for suicide was >80 . Previous studies have shown a particularly high suicide risk before or during the first months of treatment¹⁰. Our participants were recruited through an early treatment and intervention study

and thus very early compared to studies recruiting at discharge from first inpatient treatment or later. The findings can thus be seen as an illustration of the particularly high risk for suicide at this early stage, and underline that mortality estimates based on multi-episode patient samples significantly underestimate the suicide risk in schizophrenia spectrum patients. The number of deaths from cardiovascular disorders was low. The participants were, however, still in their late thirties and not yet into the main cardiovascular risk period.

In conclusion, we found a high mortality rate during the first ten years of treatment, with the risk of dying by suicide being particularly high during the first two years. Long DUP and substance misuse at baseline were significant predictors of all-causes mortality. This is of clinical importance, since help-seeking behaviors and substance use can be responsive to interventions.

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