
Author’s declarative title: One third of Danish people will receive secondary care treatment for a mental disorder during their lifetime.

Commentary
What is already known on this topic?
There is a need to assess the lifetime risks for mental disorders in order to plan health care services. Incidence rates of mental disorders have been estimated by age and sex in population-based prospective surveys. Previous studies that have used health registries to estimate incidence and risk have focused on only one specific disorder. Nevertheless, no nationwide studies that provide comprehensive assessments of lifetime risks for treated mental disorders have been carried out.

What does this paper add?
• This is the first comprehensive nationwide assessment of lifetime risks, sex- and age-specific incidence rates and sex- and age-specific cumulative incidence rates of mental disorders treated in secondary care during a lifetime.
• The results show that one third of the Danish population will receive treatment in secondary care for a mental disorder across their lifetime. This finding is close to the lifetime prevalence found in previous community surveys. Many mental disorders had a single peak during the second and third decades of life, whereas some disorders had a second peak later in life.
• The study complements results from population-based surveys as it was able to obtain information from persons who were institutionalised or homeless, groups that are not usually captured in population-based surveys. The diagnoses were made by a comprehensive clinical assessment and the results are not influenced by the reporting bias, usually present in population-based surveys.

Limitations
• If persons with untreated disorders had been included, the estimates would have been significantly higher, since previous studies have estimated that 36% to 50% of serious cases with mental disorders in developed countries are untreated. Mild and moderate mental disorders treated only by general practitioners or by specialists in psychiatry working in private practice were also not included.
• Clinician-derived diagnosis lacks the reliability that can be obtained by well-trained interviewers using standardised diagnostic interviews such as the Composite International Diagnostic Interview.

What next in research
Further studies are needed to look at the onset of new episodes of illness after the first one (relapse rate), analyse the course of the disorder and obtain information about health care utilization. Useful epidemiological data could be obtained from nationwide mental health registers in other countries, which could allow making comparisons about the performance of different national health care systems. The comparison of Pedersen and colleagues’ results with the results in less developed countries would be interesting. Nevertheless, it is extremely difficult to carry out similar analysis in many countries, due to the absence of nationwide mental health registries representative of the general population.

Could these results change your practices and why?
Yes. The age distributions can help clinicians know the age at which the incidence of different mental disorders can have their peak, which might be helpful for early detection and
prevention of mental disorders. Special attention to patients in their 20s and 30s and those over 60 must be paid, since those are the times at which many disorders have their onset. Furthermore, the results have important implications for planning healthcare services and can guide allocation of future healthcare funding in terms of total demand estimated over the lifetime, the age distributions expected at different treatment facilities and the ages at which primary prevention activities are targeted. The results also show the public health needs of young people and of those over 60.

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References
1. Thorup A, Waltoft BL, Pedersen CB, Mortensen PB, Nordentoft M. Young males have a higher risk of developing schizophrenia: a Danish register study. Psychol Med. 2007 Apr;37(4):479-84.

Competing interests
None

Your postal, email and telephone/fax details (not for publication)

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ABSTRACT

Prevalence, assessment and diagnosis

Population: All Danish residents born between January 1st 1900 and December 31st 2010 who were alive during the study period 2000 to 2012. Incident cases were the first contact with secondary care during the study period for any mental health illness, as recorded in the Danish Psychiatric Central Research Register using ICD codes.
Setting: Treatment of any mental illness in secondary care in Denmark from 1st January 2000 to December 31st 2012.

Outcomes: Study characteristics: Five-point-six million Danish residents were included in the cohort, which was followed up for 59.5 million person years. 320,543 people had their first psychiatric contact for any mental health disorder; 489,006 died and 69,987 people emigrated.

Risk for any psychiatric disorder: Lifetime risk was 37.66% for females (95% CI 37.52 to 37.80) and 32.05% for males (95% CI 31.91 to 32.19). The incidence of any disorder before the age of 50 was 25.26% for females (95% CI 25.13 to 25.39) and 22.60% for males (95% CI 22.49 to 22.73).

Risk for schizophrenia-related disorders: Lifetime risk was 3.67% for females (95% CI 3.61 to 3.73) and 3.78% for males (95% CI 3.73 to 3.84). The incidence before the age of 50 was 2.43% for females (95% CI 2.39 to 2.48) and 3.06% for males (95% CI 3.01 to 3.12).

Risk for bipolar affective disorder: Lifetime risk was 1.84% for females (95% CI 1.80 to 1.88) and 1.32% for males (95% CI 1.29 to 1.36). The incidence before the age of 50 was 1.07% for females (95% CI 1.04 to 1.10) and 0.76% for males (95% CI 1.04 to 1.10).

Risk for single and recurrent depressive disorder: Lifetime risk was 15.50% for females (95% CI 15.39 to 15.61) and 9.07% for males (95% CI 8.98 to 9.16). The incidence before the age of 50 was 10.18% for females (95% CI 10.09 to 10.27) and 5.63% for males (95% CI 5.57 to 5.70).

Risk for neurotic, stress-related and somatoform disorders: Lifetime risk was 18.97% for females (95% CI 18.85 to 19.09) and 12.51% for males (95% CI 12.41 to 12.61). The incidence before the age of 50 was 15.80% for females (95% CI 15.69 to 15.91) and 10.28% for males (95% CI 10.19 to 10.37).

Risk for Alzheimer's disease: Lifetime risk was 5.14% for females (95% CI 5.06 to 5.22) and 3.20 for males (95% CI 3.13 to 3.27). The incidence before the age of 50 was 0.01% for females (95% CI 0.01 to 0.02) and 0.01% for males (95% CI 0.01 to 0.01).