Towards a public health approach to psychotic disorders

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The 21st century has brought about a burgeoning recognition of the central role of mental health and illness to overall population health. The emphasis of these public mental health efforts has largely been on mental wellbeing and common mental disorders, such as depression, anxiety, and substance use disorders, with less focus on rarer conditions, such as psychotic disorders.

Psychotic disorders, which include schizophrenia, bipolar disorder, depression with psychotic features, and substance-induced psychoses, are increasingly recognised as an important public health issue. Despite being a rare condition,[1] schizophrenia is one of the top 20 leading contributors to years lived with disability globally,[2] largely due to the young age at onset, high disability weighting, and often chronic course of illness. The public health effects are further compounded by the 15-year reduction in life expectancy faced by people with psychotic disorders,[3] mainly attributable to the high prevalence of comorbid physical health conditions in this population.

In this issue of *The Lancet Public Health*, Hannah Jongsma and colleagues[4] make an important contribution towards a public health approach to psychotic disorders through an extensive systematic review and meta-analysis of the international literature on the incidence of psychotic disorders. This review was an ambitious initiative, combining estimates from 177 citations spanning 26 countries. Their findings suggest that the incidence of psychotic disorders might be higher than previously believed, at 26·6 per 100 000 person-years, with marked variation across diagnostic categories.[5] The overarching conclusion of this review was that the heterogeneity in incidence estimates was high, largely due to two primary sources.

First, the heterogeneity in estimates was due to differences in methodology, with variation by case definition and sources of data employed. Studies that used large population registries or administrative health data tended to find a higher incidence of psychotic disorders than first contact studies that used standardised diagnostic procedures coupled with comprehensive case ascertainment strategies.[4] Many regions rely on these population-based datasets to inform public health strategies; although powerful, they often have insufficient standardisation across providers, institutions, and health-care systems. Conversely, first contact studies might represent a more rigorous epidemiological approach to obtaining data on the population distribution of psychotic disorders, but the intensity of resources required might render them unfeasible for ongoing population surveillance.

Second, the analysis by Jongsma and colleagues highlights the substantial heterogeneity in the incidence of psychotic disorders across different countries and regions.[5] Although the variation in the present Article is confounded by differences in methodology, this heterogeneity is more clearly illustrated by the EU-GEI study,[5] which found an 8-times difference in incidence estimates across five countries and 16 catchment areas using a consistent approach across sites. Studies that use consistent and standardised metrics are crucial for furthering understanding of the causes of psychotic disorders because differences across sites can provide important insights on key risk factors.[6] Also noteworthy in the findings from Jongsma and colleagues is the almost complete absence of estimates from low-income and middle-income countries,[4] which has also plagued larger-scale initiatives, such as the Global Burden of Disease study.[1,7] Given that the burden of mental disorders is rapidly increasing in these contexts as a result of the epidemiological transition from infectious diseases and malnutrition to more chronic conditions, psychotic disorders in these settings need to be better understood.

To advance a public health approach to psychotic disorders, a standardised metric for monitoring psychotic disorders is needed at the population level, as was so clearly highlighted by the heterogeneous data presented by Jongsma and colleagues.[4] To borrow an example from the obesity field, public health gains were possible once obesity measurement was standardised through body-mass index.[8] Despite the limitations of this measure, it provides a consistent and standardised metric for population health surveillance. The development of such metrics might be quite challenging in public mental health due to the complexity of mental disorders and differences in diagnostic practices across contexts; however, the benefits of having consistent and comparable data across regions, countries, and

time periods will outweigh the inevitable limitations associated with such a measure.

Many important advances have been made in public mental health for psychotic disorders. Tertiary prevention efforts through early psychosis intervention programmes have proven effective at improving recovery and quality of life among people with psychotic illness.[9] Although controversial,[10] ongoing research is establishing whether secondary prevention for people at clinical high risk for psychotic disorders is effective. And although the causal mechanisms might not be fully understood, several well established risk factors for psychotic disorders could have important implications for primary prevention, such as social marginalisation and adversity,[11] high-potency cannabis use,[6] and migration.[12] However, assessment of the public health effects of these prevention efforts will not be possible without standardised and consistent metrics for population surveillance of psychotic disorders. Additionally, given the marked heterogeneity observed across countries and contexts, it is unlikely that a one size fits all public health solution will be effective, further highlighting the need for high quality standardised data as an important step towards a public health approach to psychotic disorders.

Kelly K Anderson
Departments of Epidemiology and Biostatistics and Psychiatry, The University of Western Ontario, London N6A 5C1, ON, Canada
kelly.anderson@schulich.uwo.ca

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1 Charlson FJ, Ferrari AJ, Santomauro DF, et al. Global epidemiology and burden of schizophrenia: findings from the Global Burden of Disease Study 2016. *Schizophr Bull* 2018; **44:** 1195–1203.
2 GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018; **392:** 1789–1858.
3 Hjorthøj C, Stürup AE, McGrath JJ, Nordentoft M. Years of potential life lost and life expectancy in schizophrenia: a systematic review and meta-analysis. *Lancet Psychiatry* 2017; **4:** 295–301.
4 Jongsma HE, Turner C, Kirkbride JB, Jones PB. International incidence of psychotic disorders, 2002–17: a systematic review and meta-analysis. *Lancet Public Health* 2019; **4:** e229–44.
5 Jongsma HE, Gayer-Anderson C, Lasalvia A, et al. Treated incidence of psychotic disorders in the multinational EU-GEI Study. *JAMA Psychiatry* 2018; **75:** 36–46.
6 Di Forti M, Quattrone D, Freeman TP, et al. The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEI): a multicentre case-control study. *Lancet Psychiatry* 2019; published online March 19. https://doi.org/10.1016/S2215-0366(19)30048-3.
7 Whiteford HA, Ferrari AJ, Degenhardt L, Feigin V, Vos T. The global burden of mental, neurological and substance use disorders: an analysis from the Global Burden of Disease Study 2010. *PLoS One* 2015; **10:** 1–14.
8 Wolpert M. Rethinking public mental health: learning from obesity. *Lancet Psychiatry* 2018; **5:** 458–60.
9 Correll CU, Galling B, Pawar A, et al. Comparison of early intervention services vs treatment as usual for early-phase psychosis: a systematic review, meta-analysis, and meta-regression. *JAMA Psychiatry* 2018; **75:** 555–65.
10 Ajnakina O, David AS, Murray RM. 'At risk mental state' clinics for psychosis—an idea whose time has come—and gone! *Psychol Med* 2018; published online Dec 26. DOI:10.1017/S0033291718003859.
11 van Os J, Kenis G, Rutten BPF. The environment and schizophrenia. *Nature* 2010; **468:** 203–12.
12 Selten J, van der Ven E, Termorshuizen F. Migration and psychosis: a meta-analysis of incidence studies. *Psychol Med* February 2019; published online Feb 6. DOI:10.1017/S0033291719000035.