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Editorial

Prevention, innovation and implementation science in mental health: the next wave of reform

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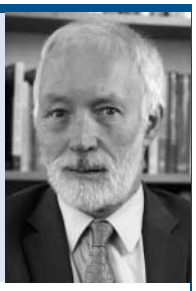

Summary
Although the corrosive effect of mental ill health on human health and happiness has long been recognised, it is only relatively recently that mental illness has been acknowledged as one of the major threats to economic productivity worldwide. This is because the major mental disorders most commonly have their onset during adolescence and early adulthood, and therefore have a disproportionate impact on the most productive decades of life. With the costs associated with mental ill health estimated to double over the next two decades, a greater emphasis on prevention and early intervention has become even more imperative. Although prevention largely remains aspirational for many reasons, early intervention is well within our current reach and offers the potential to significantly reduce the impact of mental ill health on our health, happiness and prosperity in the immediate future.

Declaration of interest
None.

Professor Patrick McGorry's major interest is in youth mental health, particularly early psychosis, and in designing effective healthcare services for young people with emerging mental disorders.

In a report drawing on three different forms of economic analysis, the World Economic Forum recently identified mental ill health as being at least equal to cardiovascular disease as the principal threat to gross domestic product (GDP) over the next two decades.[1] *The Lancet*'s campaign for global mental health and the international Grand Challenges in Mental Health initiative on research priorities also underline the growing recognition that mental ill health is the awakening giant of health and social reform.[2,3] Although the costs of mental ill health are otherwise set to double over the next 20 years, billions could be saved through a greater emphasis on prevention and early intervention. The key reason that mental ill health is as potently corrosive of economic growth as it is of human happiness and potential is that 'mental disorders are the chronic diseases of the young'.[4] The distribution of such disorders within the life cycle is the mirror image of physical illness. Seventy-five per cent of mental disorders emerge before the age of 25 years, about a quarter before the age of 12 years and the rest in a steady surge of premature mortality, morbidity and comorbidity through the emerging adult years.[5] There is evidence that the mental health of young people is worsening, prompting the evocative assertion that young people are the 'miners' canaries' of society.[6] The rates of diagnosable mental disorders during the period of transition between childhood and adulthood can reach as high as 50%, with multiple or recurrent disorders present in more than half of cases. Neither is this to be dismissed as teenage angst or growing pains, since there are real and lasting consequences for earning potential and educational and social outcomes at age 30 years.[7] There have been major changes in the developmental experience of the transition to adulthood in recent decades, which have some positive aspects but may also carry a hidden yet increasing cost.[8,9] In summary, because mental disorders have their origins early in life, surge disproportionately during the stage of transition from childhood to adulthood and cast a long shadow through the decades of peak social and economic productivity,[10] they now represent the most urgent threat and potentially the greatest opportunity for prevention and control among the non-communicable diseases, a landscape otherwise arguably characterised by diminishing returns in the developed world at least.

Prevention is always better than cure, but for many reasons it remains aspirational in mental health. The feasibility of universal prevention with whole populations has been seriously questioned on the basis of power and the low malleability of risk factors.[11] Poverty, social and economic inequality and trauma, abuse and neglect make smoking and diet seem simple targets. Yet it may not be mission impossible. The natural experiment reported in the Great Smoky Mountains study, for example, showed that income supplementation for American Indian families reduced the prevalence of psychiatric disorders across adolescence.[12] Selective prevention whereby risk factors are targeted within high-risk subgroups is perhaps more within reach and is more researchable. One example is interventions triggered by screening for postnatal depression. When we move on to the firmer ground of indicated prevention, the spectrum begins conceptually and practically to merge with early intervention and treatment. The definition of indicated prevention allows subthreshold clinical features to be viewed as risk factors for fully fledged disorder. The identification of clinically significant (and functionally impairing) yet subthreshold disorder represents the frontier of research and service reform in mental healthcare and has challenged psychiatry to face the controversies and measure up to the standards of the rest of healthcare. But is it really 'prevention'? To label it so has misled some into believing that those involved are asymptomatic and currently 'not ill'. However, in psychiatry, a person's need for care demonstrably precedes the threshold for meeting full criteria for diagnosis, at least in terms of our current categorical diagnostic systems. Despite warnings about the medicalisation of human distress by critics appropriately concerned that diagnosis in some health systems (especially in the USA) means prescription of medication, there is a much greater risk of denying effective help and support to large numbers of people, many of whose lives will be at risk as a result of significant and sustained morbidity. Many more will lead thwarted lives, with poor mental health contributing to the erosion of their life chances. Indicated prevention, closely followed by early detection of full-threshold disorder, is theoretically the next best option after universal and selective prevention, and is

practically much more achievable, with Cuijpers suggesting ways it can be sharpened and enhanced.[11] We have since developed a heuristic diagnostic framework, the clinical staging model, to guide further research and reform along this frontier and either side of it.[13,14] This model is attracting increasing support,[15] although it must transcend the current diagnostic silos in terms of treatment and biomarker research.

Innovation is a vital ingredient and a pressing need if we are to shift the focus from the palliative legacy of traditional mental healthcare to a proactive effort to limit the corrosive havoc that mental disorders can wreak on the lives of those on the threshold of productive life and beyond. We have only partially relinquished the deterministic concepts of 19th-century psychiatry which continue to influence the energy as well as the topography of mental healthcare. Innovation is like an orchid, exquisitely sensitive to context and environment,[16] and we need to understand the innovation cycle as it applies in other fields. Innovation involves new thinking, new models, new treatments – all of which we desperately need. Innovators and early adopters need to be nurtured as we seek progress in mental healthcare.

Even if there were to be no new treatment advance in the next 20 years, we could still substantially reduce what Andrews[17] describes as the 'avertable burden of disease' by increasing the scale and coverage of mental healthcare and re-engineering the timing and culture of the provision of services. The related concepts of implementation science and 'scaling up' of innovations,[18] especially of service models, are particularly relevant to this supplement. Evidence-based medicine (and its forerunner the Cochrane Collaboration) has been a valuable safeguard against 'great and desperate cures',[19] particularly in psychiatry; however, it can also be misused to obstruct the diffusion of genuine advances. As I have argued elsewhere, Cochrane loses relevance when it is applied beyond the level of individual treatment to cover health services research.[20] Evidence-based healthcare, a cousin of evidence-based medicine, simply cannot be a prisoner of Cochrane. The orchid of innovation needs a range of nutrients to grow, and although evidence is certainly one of these, a genuine need for change, champions, context and new resources are others. Many flowers will germinate and flourish in a particular setting, yet few will disseminate to other fields in a systematic or franchised manner. The scaling-up literature,[21,22] again a body of knowledge that cuts across many fields of endeavour, bears witness to the key elements that are required for success.

This supplement makes the case for a transformational reform of mental healthcare based on the principles of early intervention, and a priority focus on the developmental period of greatest need and capacity to benefit from investment: the period of emerging adulthood. This by no means argues against investments earlier or later in life, which are also essential. Heartened by the highly successful evidence-informed scaling up of early intervention in psychosis across many hundreds of locations and numerous national health systems since the mid-1990s, and the newly emergent youth mental health models of the past 5 years, a number of leaders, policy makers and service developers are working to create an international momentum to address the mental health needs of young people and their families. There are already rapidly emerging examples of these modern stigma-free cultures of care designed and operated with young people themselves, and these are described in this supplement.[23] The arguments for this type of transformational reform are resonating strongly with the community and with policy makers while attracting predictable resistance from middle management and conservative elements within professional groups. These examples of 21st-century clinical infrastructure will also facilitate some of the population-based and universal programmes that may link with mental health awareness and promotion activities and with new internet-based technologies. If these new mind-sets and reforms spread widely we might be able to reduce the impact of mental ill health on our health, happiness and prosperity over the next two decades.

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