

Inequitable Physical Illness and Premature Mortality for People with Severe Mental Illness in Australia: A Social Analysis

MELANIE EDMUNDS

Abstract

Australians with severe mental illness experience inequitably high rates of physical illness and shortened life expectancy compared to the general population. A social analysis of this phenomenon incorporating a precis of historical and contemporary public health approaches reveals persistent discrimination and entrenched social disadvantage influencing access to appropriate physical health care. People with severe mental illness in Australia are among the most vulnerable and marginalized populations in society, with fragmented and inadequate health and social services materially influencing their physical health status and longevity. Enhanced multi-sectoral collaboration, integrated physical and mental health care models, empowerment strategies, and privileging of a lay perspective within program design are critical to challenging this enduring infringement on the human right to health.

MELANIE EDMUNDS, BPhysio, GradDipPublicHlth, is clinical senior physiotherapist for Country Health South Australia Local Health Network in Mount Barker, South Australia.

Email: melanie.edmunds@sa.gov.au.

Competing interests: None declared.

Copyright © 2018 Edmunds. This is an open access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author and source are credited.

Introduction

The experience of inequitable physical illness and premature mortality for people with severe mental illness is a recognized phenomenon globally.¹ In Australia, people with severe mental illness experience significantly higher rates of physical illness and shortened life expectancy compared to the general population, with the majority of deaths the result of preventable physical conditions.² Co-morbid physical illness is estimated to occur in up to 50% of people with severe mental illness with substantial compound negative effects on quality of life.³ An historical analysis in public health can generate critical thinking on social forces shaping health experiences and inequities over time. The following examination of both historical and contemporary public health approaches in Australia considers complex social factors shaping the experience of physical illness and premature mortality for people with severe mental illness, defining an enduring infringement on human rights for this population. For the purpose of this analysis, severe mental illness signifies the diagnostic group of psychotic disorders. Psychotic disorders are severe and less common forms of mental illness characterized by distortions to thinking, perception of reality, and emotional response, with schizophrenia the most common psychotic illness.⁴

Severe mental illness in Australia

The prevalence of severe mental illness in Australia is estimated at 3.1 people per 1000 population.⁵ Despite relative infrequency in comparison to common conditions such as anxiety and substance use disorders, people with severe mental illness are leading users of specialized mental health services.⁶ People with severe mental illness in Australia report high rates of stigma, discrimination, and victimization and experience persistent and significant inequities across a range of health and social indicators.⁷

Physical morbidity

Australians with severe mental illness experience physical illness at rates well above the general population, with subsequent amplification of the

burden of ill health already borne.⁸ Diagnosis with chronic physical conditions occur at a younger age with a much higher rate of mortality five years from diagnosis compared to the general population.⁹ Globally, after suicide and epilepsy, diabetes is the third leading cause of death for people with schizophrenia, together with a 10-fold risk of mortality from respiratory disease.¹⁰ Infectious diseases such as HIV and hepatitis C virus are also over-represented in this population.¹¹

Additionally, people with severe mental illness in Australia frequently present with lifestyle risk factors. This includes almost 50% incidence of obesity, generally very low physical activity levels, dietary and vitamin deficiencies, and high rates of substance misuse.¹² It is estimated that up to half the cigarettes consumed in the US, UK, and Australia are smoked by people with a mental illness.¹³ Metabolic syndrome as a significant risk factor for cardiovascular disease is also particularly prevalent in people with severe mental illness, with nearly 50% presenting with this combination of medical symptoms.¹⁴

Mortality

People with severe mental illness have significantly shortened life expectancy of between 10 and 25 years less than the general population.¹⁵ Importantly, in contrast to increasing longevity for the general population, over the last 30 years there has been a consistent downward trend in life expectancy for those with severe mental illness.¹⁶ In Australia, suicide presents the greatest relative risk for mortality for this population; however, up to three quarters of deaths are the result of preventable physical illness.¹⁷

Health equity and human rights in Australia

To mitigate the risk of perpetuating discrimination through individualized and behavior-based research on health inequities in sub-populations, it is important to position studies within a context of human rights and the social determinants of health. An acknowledgment of Australia's human rights obligations is therefore of particular relevance to an analysis of inequitable physical morbidity and premature mortality for people with severe mental illness.

In 1975, Australia ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR).¹⁸ Article 12(1) of the Covenant clearly states, “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health”.¹⁹ To support the realization of this right, the Covenant mandated steps be taken to ensure prevention, treatment, and control of disease together with the creation of conditions enabling all peoples’ access to medical care in the event of illness.²⁰ Further relevant to this analysis is the clear description of equal entitlement of all people to benefit from scientific progress, which in this scenario includes advancements in the management of concomitant mental and physical illness.²¹ Although a process of progressive realization of rights was originally provided for within the Covenant, the intention was for expeditious progression.²²

More recently, in 2008, Australia ratified the United Nations Convention on the Rights of Persons with Disabilities (CRPD), together with the Optional Protocol in 2009.²³ These instruments provide further clarification of specific obligations to ensure the equal rights of people with disabilities.²⁴ Within the Covenant, the rights and fundamental freedoms of people with disabilities, inclusive of those with severe mental illness, are protected on an equal basis with all others.²⁵ These human rights considerations provide an important framework for interpreting social and political influences on physical health inequities for people with severe mental illness in Australia. Moreover, as Australia has committed to these legal instruments, not only is there a moral and professional obligation within the health and social sectors to address inequities in physical health status for people with severe mental illness, but also a legal requirement given the existence of complaint mechanisms within the Optional Protocol.²⁶

Historical public health perspective

Colonialism and the lunatic asylum

In Australia, from early European colonization in the late 1700s through to the 1960s, care of people with severe mental illness was practiced

predominantly in institutional settings.²⁷ This was congruent with international trends of segregation of people with mental illness from general populations.²⁸ In early colonial times, people with mental illness were typically housed in prisons.²⁹ Although this was motivated by a desire to protect the community from the potential dangers of a person’s insanity, there was recognition of the potential benefits of safe custody insofar as protection from abuse and exploitation by relatives and the wider community.³⁰ Furthermore, prior to formal lunacy legislation in colonial Australia, there was evidence of regulated committal processes, stipulations for humane treatment, and segregation from the general prison population.³¹

This rudimentary public health consideration of the well-being of mentally ill persons was further developed with the implementation of formal lunacy legislation in the Australian colonies between 1843 and 1871, setting standards for humane treatment regulations and administrative safeguards for accommodation in private asylums.³² Commonly known in Australia as lunatic asylums, these institutions were responsible for the care of people with psychotic illness.³³ The advent of these dedicated institutions triggered a shift from magisterial and religious oversight to medical professionals as custodians of asylums.³⁴ Management of people with psychotic disorders during this period was accordingly based on the medical model, utilizing concepts of organic psychiatry including early pharmaceuticals, electrotherapy, physical treatments, and mechanical restraint.³⁵

Although there were later revealed incidences of ill-treatment, these asylums were initially established with good intentions.³⁶ Asylums, as separate entities from prisons, removed the indignity experienced by people with mental illness resulting from forced association with criminal inmates.³⁷ There were also examples in early colonial Australia of asylums incorporating cottage-style living rather than warehousing in large buildings, options for boarding-out for select patients, and ‘asylum farms’, established to reflect beliefs in the therapeutic benefits of interacting with nature and meaningful occupation.³⁸ Yet these examples were

isolated and did not prevail as mainstream practice due to economic constraints.³⁹

The public health approach during this time appears dominated by a functionalist perspective on power, with asylums essentially designed to minimize impact on social order by people with psychosis, and the role of psychiatry to alleviate deviance in the 'mad'.⁴⁰ Public discourse on the care of mentally ill persons in the early 20th century focused on psychiatric management, with concern for humane treatment limited.⁴¹ Institutionalized care significantly influenced stigmatization and discrimination of mentally unwell people, with subsequent violations to human rights and formation of inequitable power structures in psychiatry.⁴² This systematic disempowerment contributed to the social exclusion and subsequent marginalization of people with severe mental illness both preceding and following the process of deinstitutionalization from the mid-20th century.⁴³

Deinstitutionalization

Deinstitutionalization in psychiatry describes the process of the transfer of responsibility for care of people with severe mental illness from custodial psychiatric institutions to community-based settings.⁴⁴ Deinstitutionalization is believed to have originated from theories of normalization and changing social standards of citizenship and human rights, and commenced from the 1950s in industrialized countries.⁴⁵ In the Australian context, criticisms of deinstitutionalization are centered on insufficient planning for systematic implementation and evaluation, and inadequate resourcing of community services.⁴⁶ Furthermore, the process of deinstitutionalization has been mirrored by a shift from core psychiatric services to increasing emphasis on population health promotion and prevention of mental illness.⁴⁷ Tension in the form of resource competition between functions of clinical psychiatry and public health approaches is described as another important factor contributing to the recognized failings of deinstitutionalization, namely under-resourcing of community mental health services, community health services more broadly, and vocational and housing services.⁴⁸

Despite these limitations, deinstitutionalization in Australia activated significant reforms to the provision of both mental and physical health care for people with severe mental illness.⁴⁹ The advent of community mental health services and their evolution over time conveyed notable improvements to philosophies underpinning care provision for people with severe mental illness. These include illness prevention, early intervention, crisis management, recovery-oriented treatments, continuity of care, and person-centered care planning.⁵⁰ Evaluation of community-based mental health services in Australia has revealed improvements in quality of life and reduction in stigmatization for people with severe mental illness in comparison to institutionalized care.⁵¹ Concomitantly, deinstitutionalization marked the advent of expanded rights and recognition of full citizenship for people with severe mental illness within Australian society, with progressive legislation aligning with international human rights advancements following.⁵²

Contemporary public health perspective

The process of deinstitutionalization and pharmaceutical innovation, in the form of antipsychotic medications, were pivotal to changes in the care of people with severe mental illness in contemporary Australia.⁵³ Attempts to understand causal factors producing inequity in physical health status for people with severe mental illness were likely to have been significantly influenced by these two phenomena. Although individualized biological and behavioral explanations persist, there is increasing awareness of social and cultural determinants of health in the experience of physical illness for this population.

Individual factors: Influence of primary diagnosis and antipsychotic medications

Psychotic disorders are associated with cognitive impairment and positive and negative symptoms which present as primary barriers to prevention and management of physical co-morbidities for people with severe mental illness.⁵⁴ Negative symptoms of psychosis are described as diminished

ability and motivation for healthy lifestyles and reduced self-care capacity, with subsequent increased risk of physical illness.⁵⁵ Furthermore, cognitive disruption reduces the likelihood of recognition of physical health problems, with suspicion, paranoia, and communication difficulties inhibiting health service access.⁵⁶

Although antipsychotic medications are considered essential for reducing the impact of symptoms of psychosis for improved health, quality of life, and life expectancy, there are well-replicated correlations of, and several suggested mechanisms for, medication-induced weight gain for both typical and atypical antipsychotic medications.⁵⁷ These mechanisms include increased appetite and sedation, and altered endocrine function for increased incidence of cardiovascular risk factors.⁵⁸ There is a significant body of research investigating causal relationships between behavioral and lifestyle choices and side effects of atypical antipsychotic medications on the physical health of people with psychotic disorders.⁵⁹ Since deinstitutionalization, the public health approach to addressing inequity in physical health status for people with severe mental illness has subsequently had an individualized focus.⁶⁰

However, availability of healthy lifestyle and self-management support programs appropriate for people with severe mental illness remains limited in Australia.⁶¹ This is a significant deficit, requiring a committed response not only to achieve recognized integrated best practice care but also to meet Australia's agreed human rights obligations.⁶² Stipulations exist within the CRPD for delivery of the same range, quality, and standard of health care for people living with disabilities as is available to all persons, together with additional programs specifically designed for people with disabilities to prevent, where possible, further illness or decline.⁶³ It appears remiss to endorse prescription of medications, the side-effects of which materially contribute to the occurrence of further life-limiting illness, and fail to provide effective treatment options to counteract the risks.

Globally, there is growing momentum supporting initiatives to improve the physical health

of people with severe mental illness, with particular emphasis on early intervention for youth.⁶⁴ In Australia, an example of innovative practice is the "Keeping the Body in Mind" program offered by South Eastern Sydney Local Health District in New South Wales.⁶⁵ This multidisciplinary, community-based program is accessible to people with severe mental illness prescribed with antipsychotic medications, with particular emphasis on youth for early intervention prior to onset of chronic illness. The program is individualized through client-centered goal-setting and supports healthy lifestyle and self-management practices, offers tailored education for chronic illness prevention, and access to exercise resources. Although similar programs are offered in some other jurisdictions, this model is not yet broadly available in Australia.

Cultural and environmental factors: Health system structure and function

Inequality in the experience of physical illness for people with severe mental illness cannot be explained by physical health factors alone.⁶⁶ There is increasing empirical evidence identifying systemic obstacles in health services preventing people with severe mental illness from receiving equitable care for physical illness.⁶⁷ Physical illness in people with severe mental illness is often undiagnosed and untreated, with high rates of physical co-morbidity and premature mortality believed to be largely preventable through early recognition and appropriate treatment.⁶⁸ Investigation of medical management of people with severe mental illness presenting with physical illness reveals reduced rates of medical treatment and hospitalization for physical conditions in comparison with the general population.⁶⁹ This is in direct contravention to the rights of people with severe mental illness to access an appropriate standard of health care available to all others.⁷⁰

Enduring separation of mental and physical health services with subsequent role ambiguity and communication inadequacies is an obstacle to the integrated care systems necessary for improved physical health of people with severe mental illness.⁷¹ Furthermore, 'diagnostic overshadowing',

the instance of psychiatric diagnosis detracting from recognition of physical illness, prevents people with severe mental illness from receiving appropriate physical health care.⁷² Similarly, an acceptance of poor health of people with severe mental illness among practitioners and incompetence in the management of co-morbid mental and physical illness further contribute to inequitable health in this population.⁷³ These are further examples of infringements on the rights of people with severe mental illness to receive health care services specifically designed to prevent their experience of additional illness and disability.⁷⁴

Finally, equity of access to, and quality of, available health care services are important social determinants of health.⁷⁵ Historic segregation and marginalization of people with severe mental illness impedes health care access today, with suggestion the consistently inequitable distribution of funding resources for mental health is the result of persistent discrimination.⁷⁶ Improved collaboration between health and social services is required to reduce physical morbidity and premature mortality for people with severe mental illness.⁷⁷ Regrettably, beyond this specific scenario, integrated policy and service delivery has been the focus of considerable debate in Australia and represents a continuing and complex challenge for the health and social domains.⁷⁸ Yet the health care sector is well positioned to take a leading role in advocating for the transfer of investments to mental health services, driving multi-sectoral collaboration, and supporting integrated physical and mental health programs to realize the human rights entitlements of people with severe mental illness in Australia.⁷⁹

The social experience of health inequity

The proportion of the Australian population experiencing psychosis is among the most marginalized and vulnerable groups in our society.⁸⁰ Socioeconomic disadvantage experienced by this population is extensively documented and clearly entrenched with pervasive social exclusion and stigmatization, lower levels of educational attainment, and high levels of unemployment, poverty, and homelessness.⁸¹ Contemporary research sug-

gests socioeconomic factors which influence the health of the general population act as a microcosm for people with severe mental illness, producing a greater detrimental impact on their health status.⁸² These are patent examples of human rights failings at a societal level for people with severe mental illness in Australia and are indicative of inadequate steps to fulfill the right to health for this population.

Additionally, within the academic sphere, empirical literature on the social determinants of physical morbidity and mortality for people with severe mental illness appears weighted with quantitative epidemiological research methodologies, with few prominent examples of studies accentuating lay experiences and knowledge. Research presents an opportunity for lay perspectives to influence future action on social contexts shaping this health inequity; a fundamental element for an empowerment approach to equity. Critical sociological examinations of the mechanisms producing this health inequity are likewise wanting, an oversight given the potential for such an approach to improve effectiveness of health equity policy interventions.⁸³

Improving social and economic participation of people with mental illness is a priority action area for the current Roadmap for National Mental Health Reform 2012 – 2022.⁸⁴ This plan emphasizes social inclusion strategies, improving multi-sectoral collaboration, and addressing homelessness.⁸⁵ However, these same issues have persisted through three decades of human rights enquiries, advocacy campaigns, and mental health strategies.⁸⁶ Furthermore, across the disability sector more broadly, there has been acknowledgment of inadequacy and inequity in provision and coordination of services, with recognized impact on the human rights experience for people with disabilities.⁸⁷ To move toward addressing these complex issues, the National Disability Insurance Scheme (NDIS) is a new initiative designed to improve equity, accessibility, and choice for provision of disability services, with incremental implementation currently progressing throughout Australia.⁸⁸ People with severe mental illness are eligible to access the NDIS and it will be valuable to monitor the impact of this program on their health and human rights experience into the future.

Conclusion

A contemporary public health perspective incorporates a range of health determinants, providing greater recognition of multiple mechanisms of inequity in the experience of physical illness and premature mortality for people with severe mental illness. However, this understanding has not yet translated to better health and well-being for this population. It could be argued there has been improvement in social participation and quality of life for people with severe mental illness in comparison to an earlier era of institutionalization, and there are notable examples of programs and initiatives nationally to address the physical health needs of this population in Australia. Yet greater recognition of the entitlements and expectations of people with severe mental illness is needed, together with a committed response to confronting physical health inequity and persistent marginalization to advance the human rights agenda for this population in Australia.

References

1. World Health Organization, *Mental health action plan 2013-2020* (Geneva: World Health Organization, 2013).
2. Mental Illness Fellowship of Australia Incorporated, *The physical health of people living with a mental illness: Literature review, programs overview and recommendations* (South Australia: Mental Illness Fellowship of Australia Incorporated, 2011).
3. Ibid.; Australian Institute of Health and Welfare, *Australia's Health 2012* (Canberra: Australian Institute of Health and Welfare, 2012).
4. Ministerial Advisory Committee on Mental Health, *Improving the physical health of people with severe mental illness – no mental health without physical health: Report* (Victoria: Victorian Department of Health, 2011).
5. V. Morgan, A. Waterreus, A. Jablensky, et al., *People living with psychotic illness 2010: report on the second Australian national survey* (Canberra: Commonwealth of Australia, 2011).
6. Australian Bureau of Statistics, *National survey of mental health and well-being: Summary of results* (Canberra: Australian Bureau of Statistics, 2007); Australian Health Ministers, *Fourth national mental health plan: An agenda for collaborative government action in mental health 2009-2014* (Canberra: Commonwealth of Australia, 2009).
7. Ministerial Advisory Committee on Mental Health (see note 4).
8. Ibid.
9. Mental Illness Fellowship of Australia Incorporated (see note 2).
10. S. Lawn, "In it together: physical health and well-being for people with mental illness," *Australian and New Zealand Journal of Psychiatry* 46/1 (2012), p. 3.
11. Australian Institute of Health and Welfare (see note 3).
12. V. Morgan, A. Waterreus, A. Jablensky, et al., *People living with psychotic illness 2010: report on the second Australian national survey* (Canberra: Commonwealth of Australia, 2011).
13. Lawn (see note 10).
14. Morgan et al. (see note 5).
15. R. Coghlan, D. Lawrence, D. Holman and A. Jablensky, *Duty to care: Physical illness in people with mental illness* (Perth: University of Western Australia, 2001).
16. T. Bradshaw and R. Pedley, "Evolving role of mental health nurses in the physical health care of people with serious mental illness," *International Journal of Mental Health Nursing* 21/3 (2012), pp. 266-273.
17. Mental Illness Fellowship of Australia Incorporated (see note 2).
18. Australian Human Rights Commission, *Human Rights Explained: Fact Sheet 5: The International Bill of Rights* (Canberra: Australian Human Rights Commission, 2009). Available at <https://www.humanrights.gov.au/human-rights-explained-fact-sheet-5the-international-bill-rights>.
19. International Covenant on Economic, Social and Cultural Rights (ICESCR), G.A. Res. 2200A (XXI), Art. xx. (1966). Available at <http://www2.ohchr.org/english/law/cescr.htm>.
20. Ibid.
21. Ibid.
22. Australian Government Attorney-General's Department, *Public sector guidance sheets: Right to health* (Canberra: Commonwealth of Australia, 2017). Available at <https://www.ag.gov.au/RightsAndProtections/HumanRights/Human-rights-scrutiny/PublicSectorGuidanceSheets/Pages/Righttohealth.aspx>.
23. Australian Government: Australian Law Reform Commission, *Equality, Capacity and Disability in Commonwealth Laws IP 44: Legislative and Regulatory Framework* (Canberra: Commonwealth of Australia, 2013). Available at <https://www.alrc.gov.au/publications/equality-capacity-and-disability-commonwealth-laws/legislative-and-regulatory-framework>.
24. Ibid.
25. Ibid.
26. UN General Assembly, *Optional Protocol to the Convention on the Rights of Persons with Disabilities A/RES/61/106, Annex II* (2006). Available at <http://www.ohchr.org/EN/HRBodies/CRPD/Pages/OptionalProtocol-RightsPersonsWithDisabilities.aspx>.
27. R. Kaplan, "Psychiatry in Australia," *South African*

Journal of Psychiatry 10/2 (2004), pp. 45-47; K. Kirkby, "History of psychiatry in Australia, pre-1960," *History of Psychiatry* 10/13 (1999), pp. 191-204.

28. Kirkby (see note 27); P. Morrall and M. Hazelton, "Architecture signifying social control: The restoration of asylumdom in mental health care?" *International Journal of Mental Health Nursing* 9/2 (2000), pp. 89-96.

29. Ibid.

30. Morrall (see note 28).

31. Ibid.

32. Ibid.

33. Kaplan; Kirkby (see note 27).

34. Morrall (see note 28).

35. Ibid.

36. Kaplan (see note 27); Morrall (see note 28).

37. Kirkby (see note 27).

38. Kirkby (see note 27); L. Monk, *Farms and gardens in Victorian Mental Health Institutions in Museums Victoria Collections* (2012). Available at <https://collections.museum-victoria.com.au/articles/11536>.

39. Kirkby (see note 27).

40. D. Lupton, "Power relations and the medical encounter," in D. Lupton, *Medicine as culture: Illness, disease and the body in western societies* (London: Sage Publications, 2003), pp. 105-136.

41. Kaplan; Kirkby (see note 27); Morrall (see note 28).

42. Morrall (see note 28); World Health Organization, *Mental health: A call for action by world health ministers* (Geneva: World Health Organization, 2001); S. Nettleton, *The sociology of health and illness*, 2nd ed. (United Kingdom: Polity Press, 2006).

43. World Health Organization (2001 see note 42); Nettleton (see note 42).

44. W. Fakhoury and S. Priebe, "The process of deinstitutionalization: An international overview," *Current Opinion in Psychiatry* 15/5 (2002), pp. 187-192.

45. A. Rosen, "The Australian experience of deinstitutionalization: Interaction of Australian culture with the development and reform of its mental health services," *Acta Psychiatrica Scandinavica* 113/Suppl 429 (2006), pp. 81-89.

46. P. McGorry, "21st century mental health care: What it looks like and how to achieve it," *Australasian Psychiatry* 19/6 (2011), pp. 5-11.

47. Rosen (see note 45); A. Hamden, R. Newton, K. McCauley-Elsom and W. Cross, "Is deinstitutionalization working in our community?" *International Journal of Mental Health Nursing* 20 (2011), pp. 274-283.

48. Rosen (see note 45); McGorry (see note 46).

49. Rosen (see note 45).

50. T. McKay and I. Goodwin-Smith, *Mental health: Exploring collaborative community reform in South Australia* (Bedford Park: Flinders University, 2016).

51. Ibid.; L. Newton, A. Rosen, C. Tennant and C. Hobbs, "Moving out and moving on: some ethnographic observations of deinstitutionalization in an Australian community," *Psychiatric Rehabilitation Journal* 25/2 (2001), pp. 152-162.

52. Newton et al. (see note 51); H. Whiteford and W. Buckingham, "Ten years of mental health service reform in Australia: Are we getting it right?" *Medical Journal of Australia* 182/8 (2005), pp. 396-400.

53. Nettleton (see note 42); D. Doessel, "A historical perspective on mental health services in Australia: 1883-84 to 2003-04," *Australian Economic History Review* 49/2 (2009), pp. 173-197.

54. J. Blythe and J. White, "Role of the mental health nurse towards physical health care in serious mental illness: An integrative review of 10 years of UK literature," *International Journal of Mental Health Nursing* 21/3 (2012), pp. 193-201; B. O'Donnell, "Cognitive impairment in schizophrenia: A life span perspective," *American Journal of Alzheimer's Disease and Other Dementias* 22/5 (2007), pp. 398-405.

55. T. Bradshaw, K. Lovell, P. Bee and M. Campbell, "The development and evaluation of a complex health education intervention for adults with a diagnosis of schizophrenia," *Journal of Psychiatric and Mental Health Nursing* 14/6 (2010), pp. 473-490; A. Chadwick, C. Street, S. McAndrew and M. Deacon, "Minding our own bodies: Reviewing the literature regarding the perceptions of service users diagnosed with serious mental illness on barriers to accessing physical health care," *International Journal of Mental Health Nursing* 21/3 (2012), pp. 220-228.

56. Chadwick et al. (see note 55); H. Leutwyler and M. Wallhagen, "Understanding physical health of older adults with schizophrenia: building and eroding trust," *Journal of Gerontological Nursing* 36/5 (2010), p. 10.

57. Mental Illness Fellowship of Australia Incorporated (see note 2); S. Pack, "Poor physical health and mortality in patients with schizophrenia," *Nursing Standard* 23/21 (2009), pp. 41-45.

58. Bradshaw and Pedley (2012, see note 16); A. Vandyke and C. Baker, "Qualitative descriptive study exploring schizophrenia and the everyday effect of medication-induced weight gain," *International Journal of Mental Health Nursing* 21/4 (2012), pp. 349-357.

59. Lawn (see note 10).

60. Ministerial Advisory Committee on Mental Health (see note 4).

61. D. Wynaden, L. Barr, O. Omari and A. Fulton, "Evaluation of service users' experiences of participating in an exercise programme at the Western Australian State Forensic Mental Health Services," *International Journal of Mental Health Nursing* 21/3 (2012), pp. 229-235.

62. P. Ward, J. Firth, S. Rosenbaum, et al., "Lifestyle in-

- interventions to prevent reduce mortality in schizophrenia,” *The Lancet Psychiatry* 4 (2017), pp. e14; S. Rosenbaum, A. Tiedemann, R. Stanton, et al., “Implementing evidence-based physical activity interventions for people with mental illness: an Australian perspective,” *Australasian Psychiatry* 24 (2016), pp. 49-54.
63. Convention on the Rights of Persons with Disabilities, G.A. Res. 61/106 (2006). Available at <http://www2.ohchr.org/english/bodies/ratification/15.htm>.
64. D. Shiers, P. Jones and S. Field, “Early intervention in psychosis: Keeping the body in mind,” *British Journal of General Practice* 59/563 (2009), pp. 395-396; International Early Psychosis Association (iphYs) working group, *Healthy active lives (HeAL) consensus statement 2013* (2013). Available at https://docs.wixstatic.com/ugd/3536bf_87e-499b483ee444fbeatd0b5f103e17.pdf.
65. New South Wales Government, *Keeping the body in mind (KBIM) program* (Sydney: South Eastern Sydney Local Health District, 2017). Available at https://www.seslhd.health.nsw.gov.au/Mental_health/programs.asp.
66. Ministerial Advisory Committee on Mental Health (see note 4).
67. E. Collins, S. Tranter and F. Irvine, “The physical health of the seriously mentally ill: An overview of the literature,” *Journal of Psychiatric and Mental Health Nursing* 19 (2011), pp. 638-646.
68. Ministerial Advisory Committee on Mental Health (see note 4).
69. Coghlan (see note 15).
70. Convention on the Rights of Persons with Disabilities (see note 63).
71. B. Happell, C. Davies and D. Scott, “Health behaviour interventions to improve physical health in individuals diagnosed with mental illness: A systematic review,” *International Journal of Mental Health Nursing* 21/3 (2012), pp. 236-247.
72. Chadwick et al. (see note 55).
73. S. Leucht, T. Burkard, J. Henderson, et al., “Physical illness and schizophrenia: A review of the literature,” *Acta Psychiatrica Scandinavica* 116 (2007), pp. 317-333.
74. Convention on the Rights of Persons with Disabilities (see note 63).
75. P. Ward, “Equity of access to health care services,” in H. Keleher (ed), *Understanding health: A determinants approach* (South Melbourne: Oxford University Press, 2009).
76. Chadwick et al. (see note 55), McGorry (see note 46).
77. D. Casey, M. Rodriguez, C. Northcott, et al., “Schizophrenia: Medical illness, mortality and aging,” *International Journal of Psychiatry in Medicine* 41/3 (2011), pp. 245-251.
78. P. Ward, S. Meyer, F. Verity, et al., “Complex problems require complex solutions: The utility of social quality theory for addressing the social determinants of health,” *BMC Public Health* 11 (2011), pp. 630-638.
79. F. Baum and S. Simpson, “Building healthy and equitable societies: What Australia can contribute to and learn from the Commission on Social Determinants of Health,” *Health Promotion Journal of Australia* 17/3 (2006), pp. 174-179.
80. Mental Illness Fellowship of Australia Incorporated (see note 2).
81. Morgan et al. (see note 5).
82. Collins et al. (see note 67).
83. T. Schofield, “Health inequity and its social determinants: A sociological commentary,” *Health Sociology Review* 16/2 (2007), pp. 105-114.
84. Council of Australian Governments, *The Roadmap for National Mental Health Reform 2012-2022* (Canberra: Council of Australian Governments, 2012).
85. Ibid.
86. McGorry (see note 46).
87. Australian Law Reform Commission (see note 23).
88. National Disability Insurance Agency, *About the NDIS* (2017). Available at <https://www.ndis.gov.au/about-us/what-ndis.html>.

