Royal Commission into Victoria's Mental Health System

WITNESS STATEMENT OF PROFESSOR SURESH SUNDRAM

I, Professor Suresh Sundram MBBS MMed FRANZCP PhD, Head of Department of Psychiatry, School of Clinical Sciences, Monash University and Director of Research, Monash Health Mental Health Program, of 246 Clayton Road, Clayton, in the State of Victoria, say as follows:

1 I make this statement on my own behalf with the consent of my employers, Monash Health and Monash University.

2 I make this statement on the basis of my own knowledge, save where otherwise stated. Where I make statements based on information provided by others, I believe such information to be true.

BACKGROUND

Qualifications and experience

3 I have the following qualifications:

(a) Doctor of Philosophy, the University of Melbourne (2001);

(b) Fellowship, Royal Australian and New Zealand College of Psychiatrists (1999);

(c) Master of Medicine, the University of Melbourne (1999); and

(d) Bachelor of Medicine and Surgery, the University of Melbourne (1988).

4 I have held my current roles, Professor and Head of Department of Psychiatry at Monash University and Director of Research, Mental Health Program at Monash Health, since 2019.

5 I am a psychiatrist and neuroscientist, with a research and clinical focus on schizophrenia and related disorders. I established the Molecular Psychopharmacology Laboratory at the Florey Institute of Neuroscience and Mental Health (formerly known as the Mental Health Research Institute) in 2004, and concurrently established the Northern Psychiatry Research Centre.

6 I have spent much of my career as the Clinical Director of major metropolitan adult mental health services in Melbourne.

7 Prior to my current roles, I held the following positions within the mental health sector:

(a) Unit Head, Adult Psychiatry at Monash Medical Centre, Monash Health (2015 to 2019);

(b) Professor (Adjunct Clinical), Department of Psychiatry, School of Clinical Sciences, Monash University (2015 to 2019);

(c) Director of Clinical Services, Northern Area Mental Health Service, North Western Mental Health, Melbourne Health (2002 to 2015);

(d) Head of Molecular Psychopharmacology, Florey Institute of Neuroscience and Mental Health (formerly Mental Health Research Institute) (2004 to 2015);

(e) Associate Professor, Department of Psychiatry, University of Melbourne (2004 to 2015);

(f) Director of Northern Psychiatry Research Centre (2004 to 2015);

(g) Head of Statewide Psychotropic Drug Advisory Service, Florey Institute of Neuroscience and Mental Health (2012 to 2015);

(h) Woods Family Research Fellow at Rebecca L. Cooper Laboratories, Mental Health Research Institute of Victoria (2000 to 2001);

(i) Consultant Psychiatrist at Northern Area Mental Health Service, North Western Mental Health, Melbourne Health (1999 to 2002);

(j) Senior Research Fellow at Rebecca L. Cooper Laboratories, Mental Health Research Institute of Victoria (1999 to 2002);

(k) Lilly Psychiatry Research Fellow, Mental Health Research Institute of Victoria (1999); and

(l) Psychiatry Registrar, North Western Mental Health, Melbourne Health (1994 to 1999).

8 I have also lectured Monash University and the University of Melbourne students in psychiatry since 1998.

9 Attached to this statement and marked **SS-1** is a copy of my curriculum vitae, which provides further details of my career and experience, including my research, and committee and panel appointments.

Current role

Monash University

10 As the Head, Department of Psychiatry, School of Clinical Sciences, Monash University, I have overall responsibility for all research, teaching and administrative functions of the Department. This includes research within the Centres for Developmental Psychiatry and Psychology and Southern Synergy, the Translational Molecular Psychiatry research program and research conducted by other staff and adjunct appointments within the Department. I also have overall responsibility for the supervision of research for undergraduate, graduate, doctoral and post-doctoral students. The teaching involves that of medical students in preclinical years and their clinical psychiatry training and examinations in clinical years. In addition, the School of Clinical Sciences offers a Masters of Mental Health Science which teaches post-graduate nurses, allied health clinicians and medical doctors, including psychiatry registrars.

11 My administrative responsibilities include:

(a) reporting to the School of Clinical Sciences and through that to the Faculty of Medicine, Nursing and Health Sciences, Monash University;

(b) the development and fostering of stakeholder relationships with other internal and external research, funding, policy and service entities; and

(c) advocacy for research, teaching and improved service systems in mental health.

Monash Health

12 As the Director of Research, Mental Health Program, Monash Health, I am, in conjunction with the Program Director, responsible for the facilitation of research within the program. This involves fostering and mentoring prospective researchers, coordinating research activity, facilitating external research collaborations, advocating for research infrastructure, facilities and support and developing and nurturing key stakeholder relationships within and outside the program. It also involves working alongside discipline leads to ensure excellence in educational and training activities, specifically for trainee psychiatrists.

FUTURE COMMUNITY-BASED MENTAL HEALTH SYSTEM

The support required for people to self-manage their mental illness in the community

13 There are two components to the issue of people self-managing their own mental illness in the community, namely, when is it appropriate for people to self-manage their mental illness, and what is needed to support people who do.

Self-management of mental illness

14 It is not always appropriate for people to self-manage their mental illness. We need to be cognisant of the need to differentiate between groups of people who will be able to self-manage and those who will not. While systems can be created to support self-management, it will not be suitable for all people with mental illness, or for all individuals who present to public mental health services.

15 Whether an individual is able to self-manage their illness depends on the level of confidence that individual and their family members have in managing their illness. It is not based on, or defined by, an individual's diagnosis or severity of illness, but rather by what the patient and their family are comfortable with.

16 This confidence will depend on the knowledge and experience an individual has with respect to their illness, and their pre-existing resources. It is a developmental process that should be fostered rather than either neglected or insisted upon by the service. Under the public mental health system, people who will be able to self-manage are generally those who already have a well-defined illness and are already reasonably well connected with mental health systems. An individual who is highly capable, and is knowledgeable about their illness, is likely to be more willing to self-manage than someone who was unaware of the nature of their illness or for whom a diagnosis comes as an enormous shock.

17 It may be that at times, in particular early on in the course of an illness, or during times of stress or upheaval, an individual requires more assistance from the system. The system must be flexible and responsive to the varying needs over time of the individual and their family.

18 Self-confidence and autonomy are promoted by the acquisition of information, including through the assistance of peers, an ability to access resources, and by clinicians working with people to identify the individual characteristics of their illness. This will empower individuals to recognise when they are unwell or at risk of becoming unwell, and the factors that will promote them being well. Confidence in self-managing an illness also relates to the level of social and family support an individual has.

19 The first cohort of people around whom self-management strategies should be developed is the group of people who understand and have some acceptance of their illness.

Support required for self-management

20 In order for people to safely self-manage their illness, a different service format is required from that which currently exists. There are two components to developing

self-management strategies, namely, the establishment of integrated service hubs and supported care coordination.

21 It is critical that individuals self-managing their illness are easily able to access the range of service providers they need through integrated service hubs, including both health and psychosocial service providers.

22 A seamless interface between service providers and mental health services is integral to the notion of self-management. Ideally, large multi-disciplinary and integrated service hubs should be created, involving a range of government or other services that are geographically co-located or close together. These hubs should be based around, or adjacent to, community health centres, which would allow individuals to be directed to service providers geographically.

23 A key element is also the co-location of, or outreach by, mental health clinicians into a number of service systems, including:

(a) alcohol and drug services;

(b) housing services;

(c) National Disability Insurance Scheme (**NDIS**) support services;

(d) employment support services;

(e) family support services (especially family violence and child support); and

(f) justice services.

24 Mental health services should be co-located with agencies where there is a significant client base of consumers of mental health services, allowing clinicians to work alongside staff in another service system, in particular for individuals who may struggle to engage with particular service providers. Key agencies, in particular alcohol and drug and housing services, need to provide outreach into mental health services to provide additional support. This would allow a person to see another service, for example a housing worker to assist with their housing needs, immediately after seeing their mental health clinician.

25 It is vital that the service components or providers are linked, either in reality or virtually, through a supported care coordination mechanism, to ensure that when people require support and services, they know how and where to access those services.

26 This could be done by the mental health community support sector taking on a central care coordination role, to work with individual clients to develop a care plan, identify their specific service needs and to enable those individuals to access resources across the spectrum of service providers in a centralised way. Mental health community support coordinators would then accompany an individual on their journey to ensure they are able

to actualise all of the components of their needs or projected needs. These coordinators do not need to be mental health clinicians, and instead might be welfare or trained peer support workers.

Providing specialist mental health expertise to general practitioners and other service providers

Service providers other than general practitioners

27 Integrated service hubs would enable specialist mental health expertise to be available to other service providers. I strongly advocate for outreach by mental health services into the other agencies referred to above (NDIS, housing services, alcohol and drug services, employment support, family support services and justice), and similar inreach by at least some of these services into mental health services.

28 This cross fertilisation across service systems would provide mental health expertise to other services where they are managing an individual who may have a co-existent mental disorder, or where an individual presents primarily with a mental health disorder but requires the support of those other agencies, for example, housing or NDIS support.

General practitioners

29 The public mental health system has, over the past 30 years, disengaged and disenfranchised general practitioners (**GPs**). GPs, as a result, have had to become self-reliant with reference to provision of psychiatric care.

30 In my view, the barriers to GPs accessing specialist mental health service providers need to be removed. A component of community mental health programs should be dedicated to the provision of a shared care system with GPs, providing within mental health service hubs dedicated senior doctors, such as consultant psychiatrists and senior registrars, who are able to provide service responses to GPs.

31 Options for this may include:

(a) providing GPs with access to specialist advice by telephone or email in respect of particular patients or issues of concern;

(b) creating a referral pathway for GPs to refer individuals to specialist appointments;

(c) facilitating the provision of specialist opinions and management plans; and

(d) establishing priority referral pathways for reviews by the mental health system of patients with joint mental health and GP relationships, for example, former mental health patients who are being primarily managed by a GP.

32 In the early 2000s, Graham Meadows developed a psychiatry consultation liaison in primary practice (**CLiPP**) program in North West Melbourne, which was an outreach model of psychiatrists working on a sessional basis in GP practices. There are also numerous private examples of psychiatrists and psychologists who work into GP practices and there are public examples within regional and rural Victoria of shared care. However, while these models have been previously attempted, I am not aware of any that have been sustained or delivered in an effective way in metropolitan Melbourne.

Hospital treatment care and support in a future mental health system

33 Hospital based mental health care plays a crucial role in the mental health system, and will continue to do so in the future.

34 In my view, hospital intervention should be a tiered system of response, across both the whole of the hospital system and the community based system.

35 Mental health is generally addressed as a homogenous concept. As a result, the current mental health system delivers homogenised and generic services. However, mental health encompasses a wide variety of different disorders, of varying levels of severity of illness, each of which require different types of responses or treatments.

36 I am a strong advocate for the re-introduction of expertise into hospital care, by implementing the same 'stepped down' level of care structure that has been adopted in the acute care system. There should be multiple levels of hospital response, from tertiary hospitals, to secondary hospitals, to primary level care.

37 Tertiary hospitals will be centres of high level expertise with speciality or subspecialty units, which may be disorder specific, to cater for the most complex, severe and unwell patients. Secondary hospitals would operate more generic inpatient units, where patients would receive a comparable and relatively standardised level of care, regardless of their illness. This level of care is similar to that in our current hospital system. A secondary level of care might be the only feasible response in some locations, particularly remote or regional locations.

38 This tiered structure would ensure that hospital services cater to the particular needs of the population, providing high level expert care for some, and a more generic service response at a community based level.

39 An unknown element in both hospital and community based mental health care is the development of the proposed new Victorian Collaborative Centre for Mental Health and Wellbeing (**Collaborative Centre**). The Collaborative Centre is a critical development, and has the capacity to be a 'game-changer', shaping the answer of what the future mental health system could look like in ten years.

40 My hope is that the Collaborative Centre will envision and implement a tiered system approach for people with mental health disorders who seek assistance from the public mental health system, particularly in respect of hospital based mental health care, but also in respect of community based care.

41 An example of best practice outside the mental health area is the Victorian Comprehensive Cancer Centre (**VCCC**) – Peter MacCallum Cancer Centre development. Here, international best practice care across a number of different cancers is strived for, underpinned by excellence in clinical service provision and research including clinical trial access for novel treatments.

Community care, treatment and support in a future mental health system

42 The tiered approach outlined above for hospital based care should also be adopted for community mental health care. This would involve a similar interface, with a range of high level speciality or subspecialty clinics to provide advice and support to mental health services, where individuals with particular disorders or problems can receive high level expert care. For example, a psychiatrist could refer a patient to a subspecialty unit for particular advice or expert assessment and management for a severe illness, examples might be eating disorders, obsessive-compulsive disorder or treatment resistant psychosis or depression.

43 Secondary level community care would provide generic responses and care, similar to that offered in our current system. Secondary level community clinics would have an integrated service hub with a range of services (as discussed in paragraph 23), allowing individuals to access psychosocial support and assistance with general physical care, as well as mental health care which is not of a speciality or subspecialty nature.

44 The next level down would be community mental health, primary care, and other government agency support systems working together in an integrated way. This level may involve the outreach of mental health clinicians into community health or primary care.

Reducing the gap between the supply and demand for community mental health services

45 Increasing funding is only a partial solution to reducing the gap between the supply and demand for community mental health services. Doing more of the same, even with additional funds, will not address the problem.

46 What is needed is a reconfiguration of both the workforce and physical infrastructure resources in the mental health sector. A restructure of community mental health systems, to bring into play a range of community based service providers to assist people with mental health disorders, is required.

47 This would involve demarcating service system delivery which should be mental health, and service system delivery which might be more appropriately delivered by other agencies or service providers, including, by way of example, Mental Health Community Support Services or NDIS.

48 This comes back to the outreach/in-reach model, discussed in paragraphs 22 and 28 above, where much of the care coordination function would be allocated to roles outside the current mental health system and outside the current mental health clinician function. Key coordination could be done by appropriately skilled welfare or peer support workers, working hand in glove with the mental health service.

49 By establishing an extended and blended multidisciplinary team, these workers would take on the support roles currently being performed by mental health clinicians. This would take pressure off clinicians and allow clinicians to practice in discipline specific roles. In my view, this system would improve delivery of service. This would also encourage clinicians to remain in the mental health system, as they would be recognised for their skill-set and expertise.

50 A significant challenge faced by the mental health system is that people with severe mental health disorders have difficulties undertaking the psychosocial activities that should be a core part of their rehabilitation. It is time intensive for mental health practitioners to perform this role and they are less effective at doing so than specialised service providers or support workers. Establishing a new workforce, or realigning a different workforce, to undertake these new roles will be important.

51 Another challenge is that these service providers and other organisations have been reluctant to undertake these roles, as traditionally they have not received the necessary support from the mental health sector. We need to ensure a seamless interface between mental health services and these support services, by the provision of outreach by mental health services, and in-reach by these organisations.

Barriers to increasing the volume of community mental health services

52 The fundamental barrier to increasing the volume of community mental health services is a cultural one. As mental health clinicians have worked in the current generic model for the last 20 years or so, it will take realignment and education to move to a new way of working.

53 Another major barrier will be the cultural barrier of engaging with the support sector workforce to work into mental health system, and in engaging the mental health system to work into other systems.

54 There would also need to be an expansion and upskilling of that support sector workforce. A major gap at present is the peer support workforce, which has not had a well delineated education strategy, nor has it had a skill-set that is able to be learnt. There is also no accepted standard for peer support workers across Victoria. A lot of attention is required in this space, together with resources.

55 Finally, the Mental Health Community Support Services sector has changed significantly with the introduction of NDIS, so a re-examination of available resources in that sector would be required. This is not an insurmountable or intractable problem.

Opportunities for greater efficiencies in the current approach to delivery of community mental health services

56 There are opportunities for greater efficiencies in the current approach to delivery of community mental health services. In particular the:

(a) assumption of care coordination roles by the mental health community support service sector;

(b) implementation of a shared care model with primary care; and

(c) creation of integrated hubs that provide a range of services including health and welfare.

The Monash Health Refugee Health and Wellbeing program

57 The Monash Health Refugee Health and Wellbeing program was created by Andrew Block and Jacquie McBride. I was not involved in creating that program, however I established a similar program, the Cabrini Asylum Seeker and Refugee Health Hub, which expands upon the Monash program model. The two programs are different, but comparable.

58 The three key features of each program are:

(a) the programs are nursing-led, as refugee health nurses are the initial point of contact and conduct a comprehensive screen including immunisation and mental health;

(b) the presence of primary care physicians with time, skills and support to look after complex health needs; and

(c) a specialist mental health team of psychiatrists, registrars, psychology, social work and mental health nursing is available to provide multidisciplinary specialist expert care both in a standard outpatient model or more intensively as case management.

59 The specialist mental health services accept referrals from across the State, triage according to need, and engage with people without reference to geography. Moreover, they are able to move patients between stepped levels of care for example, primary care to psychiatry review to case management as their needs change.

Key elements in developing a program focused on addressing the physical and mental health need of refugees

60 The Monash and Cabrini Hub programs have similar qualities which have made them both highly effective and successful.

61 Firstly, both programs take any refugee or asylum seeker who presents at the centre; no one is turned away. Patients know they will be heard and given assistance, even if that assistance is a referral or redirection to a more appropriate service.

62 Both programs provide blended health services together at the one location, including primary healthcare, social support, specialised mental health care, psychology, paediatrics and women's health. This means there is no differentiation between patients presenting for mental health or physical health issues, which is important to enable the de-stigmatisation of mental health disorders in this cohort.

63 Secondly, a critical component of each program is that everyone who attends the centre is screened for mental health issues, regardless of whether they present with a minor physical ailment or a mental health concern. As a result, people who may not have a diagnosed mental health disorder or who may not recognise that they are living with symptoms, can be identified early as at risk or suffering and be given support.

64 Thirdly, each program has support workers, or bicultural workers, to support patients through their journey, in much the same way as the peer support workforce operates in a mainstream context. At the Cabrini Hub, these are staff with social work backgrounds.

65 These support workers are highly skilled individuals who engage with patients to ensure that, depending on interventions they require, the patients can be linked effectively with other service providers. They are the 'glue' that holds the patients with the services. They ensure that people engage in treatment and keep coming back, and follow up with patients when they are given advice and directions as to what they need to do. The support workers act as a mechanism to support patients, so they do not feel like it is up to them to find other service providers. They can also act as an intermediary and advocate to support patients during their interactions with clinicians.

66 The service system is holistic, so that even after assessment and treatment, patients will be supported to the next steps in their phases of care.

Applying the approach of the Monash Health Refugee Health and Wellbeing program to other patient groups

67 The approach of the Cabrini Hub and Monash programs would apply to the concept of integrated service hubs described in paragraphs 21 to 23 above. The Cabrini and Monash programs have the hallmarks of the integrated service hub concept.

68 Another example of an integrated service program is the Wadamba Wilam program, which I established with Robyn Humphries at the Northern Area Mental Health Service. It is a mental health service for indigenous people living in the north of Melbourne. It is co-located with Aboriginal Health Services and forms part of a service hub.

69 This program adopts the same principles as the Cabrini Hub, focusing on destigmatising mental health, and mainstreaming mental health into the rest of a patient's welfare. It integrates mental health services with other services particularly housing, all together in one space. This means that when a person seeks the service, they do not feel that they are singled out as having mental health problems.

Expanding the approach of the Monash Health Refugee Health and Wellbeing program community wide

70 The approach of the Cabrini Hub and Monash programs is the basis for the model that I have proposed for secondary level care in community mental health, discussed in paragraph 43 above.

71 While this type of model will not necessarily be applicable where the severity or complexity of illness needs a higher level of care, I advocate that it could be a model of general level of care across the community. The tertiary level care model noted in paragraph 42 above would be required for people with more complex and severe mental health disorders. Conversely, people with lower level mental health needs may be managed in primary care with in-reach support by mental health clinicians.

STREAMING

Streaming in the mental health system

72 In my view, streaming of care is still relevant to the various levels of severity and complexity of mental health disorders.

73 Historically, streams have been divided according to age and by disorder, with divisions between child psychiatry, adult psychiatry, and aged psychiatry. This is because diagnoses that fall within each age cohort are relatively discrete, and there are roughly constrained diagnostic categories within each age group. As such, it makes sense to group child psychiatric disorders together, adult psychiatric disorders together, and aged

psychiatric disorders together. This is particularly relevant in aged psychiatry, for issues such as cognitive and late onset mood disorders.

74 I would advocate for continued streaming of childhood, adult and aged psychiatry. While there are no hard boundaries, with some disorders continuing into adulthood and aged cohorts, division by age is still a relatively robust method of dividing things. Streaming enables the development of expertise and subspecialty expertise, and in my view, the mental health sector needs to foster and nurture a return to that level of expertise. This will not be appropriate across the whole sector, but nodes of expertise should be developed in respect of certain disorders, for example, schizophrenia, bipolar disorder, and autism.

75 I also recommend streaming with regard to service provision. The types of services that are required to support families and children with particular disorders will differ to those required to support adults. Similarly, disorders of old age will require different support. A generic service hub will not be appropriate in this context, as the services required by the various age cohorts will be different.

76 A challenge in streaming by age is where childhood disorders such as autism continue on into adulthood, and when adult disorders such as schizophrenia emerge earlier in childhood. There is a basis for developing a youth based program to address the difficulties that adolescents face in transitioning to adulthood and adult psychiatry, especially those with severe disorders.

77 While I do not advocate for division of youth mental health as a separate cohort, there is a rationale for developing the physical infrastructure or a particular space for youth, such as a hybrid zone, but with the expertise continuing to be located within either child or adult psychiatry.

Alternatives to streaming

78 The alternatives to streaming are not dichotomous. Individualised packages are the goal for all patients and families. I would advocate that all patients and families engaged with specialist mental health services should receive individualised packages of care that address all their needs. These packages of care should be created in conjunction with clinical team. The clinical team should provide the highest level expertise and skills commensurate with the mental illness and the requisite needs. For the team to develop such skills requires streaming or specialisation. There is a desperate need to promote excellence in the sector to foster the expertise required to develop the best possible packages. To nurture the expertise there is a need for clinicians to focus upon areas of work – streaming.

CRISIS RESPONSE

The ideal mental health service response to an individual in crisis

79 There are three elements to the ideal mental health service response to people in crisis:

(a) expansion of the Police Critical Early Response (**PACER**) program into the ambulance service;

(b) creation of mental health hubs in emergency departments; and

(c) greater focus on establishing an early therapeutic alliance.

PACER program

80 It would make eminent sense for the PACER program to be expanded into the ambulance service, and for mental health clinicians to be co-located with ambulance functions.

81 The co-location of mental health clinicians with police through the PACER program has been a significant advance, and has been highly effective in police interventions with people with mental health disorders.

82 Creating a similar specialist PACER structure for ambulances and mental health crisis response, similar to the way in which ambulances can call intensive care paramedics, would provide ambulance officers with additional expert input. Ambulances are frequently called to deal with a range of mental health disorders for which they have limited training. Being able to access mental health clinicians, in a similar manner to PACER, by engaging with a specialist ambulance model, would address a range of variables. I now have been informed that such a pilot program has been trialled in Barwon Health.

Mental health hubs in emergency departments

83 The second element of crisis response is the fantastic initiative of the creation of mental health hubs in emergency departments.

84 In my previous role as Unit Head of Adult Psychiatry at Monash Medical Centre, I spent significant time considering how mental health hubs could function and be structured in emergency departments, and developing a model for Monash Medical Centre. I do not know the status of the development and how it has transitioned into reality, but I understand the team is still working on this.

85 My ideal mental health hub model involves having an integrated emergency department mental health response for anyone presenting to emergency with an identified mental health problem. It creates a joint response to people who are acutely unwell — a joint assessment, joint intervention, and joint treatment within the emergency department. The patient receives all the care they need from both the emergency medicine and mental

health perspectives. The vital element is the joined-up response, which includes alcohol and other drugs and clinical toxicology, as well as follow up after patients leave the emergency department. That is, that treatment is initiated in the emergency department as well as engagement with the treating clinician and team that will continue care post-discharge from emergency. This model would not be applied to people who are admitted to hospital.

Establishing an early therapeutic alliance

86 The critical third part of the solution, and what I would advocate strongly for, is a therapeutic alliance within emergency departments with a clinician who is able to engage with a person in emergency, and then follow up with them in the community after discharge, preferably within 24-48 hours.

87 This would support both patients and their families. On leaving emergency and going home or to support or crisis accommodation, patients know that the next day they will engage with their therapeutic clinician who they saw in hospital, and that the clinician will assist them in their recovery journey post-discharge, even if this is handover to a GP or private psychiatrist.

88 The component to make this work is the peer support or other support worker engaging with the patient in the emergency department, and functioning as the 'glue' to assist their return into community.

Mental health crisis outreach teams

89 In an ideal world, the mental health system would include clinicians outreaching to people in crisis, in the place in which they are having the crisis. However, while there is appeal in community based teams having outreach for acute crisis interventions, there are also significant downsides.

90 One such downside is that it is extraordinarily resource intensive to do this. Crises take a considerable time to be addressed or resolved. The most experienced and skilled clinicians cannot be allocated to this type of intervention, given the time required to resolve a crisis and the hours of the day in which crises tend to occur (with most crises occurring during the second half of the day or overnight). Such an approach would require a large number of senior doctors and registrars to be available on this roster, and multiple teams would be required in order to respond to multiple crises during each shift. As a result of these challenges, such teams tend to be comprised of lower skilled or less experienced workers.

91 I would be reluctant to invest the resources in this direction rather than the alternative interventions discussed in paragraphs 80 to 88 above.

92 An alternative would be to create an emergency department hub that is conducive to calmness. Removing a person from the site at which a crisis is occurring, and taking them to a neutral environment such as hospital or other safe space, is potentially therapeutic. While emergency departments are not presently therapeutic environments, if a calm hub could be created, it could be such a space.

CATCHMENTS

Geographic catchments

93 There are differing views as to the merits of catchments. In my opinion, the truth lies in between the opposing views.

94 Geographical defining of catchments is necessary for forward planning of services and delivery of community based services. Catchments allow the various services to understand the demographic of the catchment area in which they operate, and to plan for projected need to ensure that services are delivered adequately. They allow community teams, for example, to know the population they are working with, and the service providers in that catchment area.

95 However, geographical catchments are antithetical to family and consumer choice. In my view, the choice of hospital that a person presents to should be consumer or family driven, such that patients can be admitted to whichever hospital they wish to go to. However, it may be that they are allocated to a different clinic on discharge. I discuss this further below.

Risks of abolishing catchments

96 Community based services cannot realistically provide outreach functions to widely dispersed patients and families and seamless interaction with other service providers will be problematic in providing a comprehensive service to people.

Configuring catchments as part of the mental health system

97 Hospitals should not be captured by catchment boundaries, but community services should have some sort of geographical defining. I suggest that a hybrid model be adopted, so that people can present to whichever hospital they feel comfortable presenting to, however on discharge, any community based care is structured around geographical constraints or catchments.

98 This is the only way that such care can be structured effectively and efficiently, and would make the most sense for most patients. People would generally fall into the geographical areas they live in, and engage with community based services in those areas.

99 However, the system should allow for a degree of flexibility, based on factors of a patient's life in the community. For example, if a patient works in a separate catchment, they should not be compelled to go to their home catchment for outpatient treatment. There will also be some exceptions, including where treatment is required at a tertiary centre of expertise.

100 In this regard, there is value in considering aggregated networks. Rather than being allocated to specific institutions, such as the Alfred, Monash or Western, mental health services could be aggregated across a number of broader regions, to ensure an easier and more seamless transition of people across services. Within those broader networks, people could have the flexibility to choose where they want to be treated.

Risks and benefits associated with larger regional catchments

101 There are important benefits in transitioning to a larger network, particularly in linking up interventions which could be rolled out across a wider range, such as suicide prevention intervention.

102 However, I do not know how that would operate at a governance level. There are various structures which could be created. I am less enamoured with a structure involving an overarching authority commissioning out services to hospitals but located at the Primary Health Network (**PHN**) level. The PHN structure creates difficulties, although there are some efficiencies of scale, particularly with a larger network.

103 For this reason, I suggest a network of hospitals, as discussed in paragraph 100 above, to provide interventions across that network. This structure also allows expertise to develop, with different hospitals being experts in specific disorders, which should be encouraged.

104 I consider that the delivery of outreach services to consumers and families needs to be geographically constrained.

GOVERNANCE AND COMMISSIONING

Governance arrangements to empower mental health services to deliver improved outcomes

105 In respect of commissioning, there are challenges in establishing larger networks. In my view, the new care models and innovation required in the mental health sector will potentially come from creating nodes in the system. Other funding models may also achieve the same result as commissioning.

106 What is needed is to foster and nurture nodes of innovation, which is the missing component at present. Neither the Department of Health nor the health services are currently capable of doing this.

107 I am holding great hope for the new Collaborative Centre to become one of these nodes, in particular in trialling and testing new models. If the Collaborative Centre can undertake this role, it could be done at a whole of state level, such that a commissioning approach is not required in Victoria, given the small size of the state. This could be driven through the Mental Health branch of the Department of Health. However, this approach requires that the Collaborative Centre is given the agency to do so by the government and by health services.

108 Governance is quite a different concept. At the moment, it is not being served well from a mental health perspective. I strongly believe that mental health should continue to sit within the general health system with regard to hospital and health system structures. To do otherwise is to go down the same path that led to the system change of deinstitutionalisation, where mental health is not just the 'poor cousin' of physical health, but is orphaned from and ignored by the whole system.

109 However, there are two missing elements.

110 Firstly, Board structures for most major health networks do not have any representatives from mental health, and therefore have no way to oversee or support mental health. Each board should have a designated executive sponsor from mental health, or, even better, a subcommittee responsible for mental health which is stocked with the relevant expertise, with an executive sponsor and chair of that committee being someone on the hospital or health network board.

111 Secondly, mental health should be part of the remit of Safer Care Victoria. Mental health should be an integral component of the structure, with all of the same elements of Safer Care Victoria, including the same outputs and clinical advisory committees, being equally applied to mental health.

112 These are the two key elements requiring change.

Integrating the governance arrangements of mental health services and acute health services

113 The advantages of integrating the governance arrangements of mental health services and acute health services are that mental health is not ignored; it is seen as a component of health, hence, is not as stigmatised, and is able to access other components of the health system equally for patients.

114 The risks are that the health service sees mental health as the "cash cow" able to be used to cross-subsidise more expensive and "worthy" aspects of health care; and that it is given second tier status.

Data collection and information sharing

115 Data collection and information sharing is an important part of improving the performance of mental health services. A clinical registry concept similar to that successfully established in oncology is required in the public mental health system. This system would capture all data, not just that captured by Client Management Interface.

116 A clinical registry would enable mental health services to utilise clinical registry data, allowing the collection of high quality clinical data for every individual who engages with the public mental health system, and long term data associated with that individual. Electronic medical records would be a key component of this, linking those records with demographic data to create a clinical register of outcomes associated with interventions and socioeconomic variables. Appropriate IT infrastructure would be required for such an initiative. This becomes an invaluable resource for research into effective interventions and reduces/eliminates ineffective practices

QUALITY AND SAFETY

Factors which support consumer safety and wellbeing

117 The divisions between consumer, carer and staff safety and wellbeing can be further broken down into safety and wellbeing in hospital settings and in community settings.

118 Within the hospital setting, physical infrastructure is critical to safety. It is important that the design of the physical environment allows for spaces for patients (whether inpatients or in the emergency department) which foster a sense of autonomy and a sense of a patient's own personal space, which is vital in reducing their levels of tension and distress.

119 With respect to predatory safety, the capacity to design wards so that patients can have their own personal access, and where they feel that the space is a protected one, is important. A herringbone type design was used when designing the inpatient ward at the Northern Hospital. This involved creating lockable corridors, each with two to three rooms per corridor, to which a pass card was required for access. There were also attached secure living spaces that were able to be accessed. This design allows for both mixed wards and patients to be in safe spaces to which they could control their ingress and egress.

120 Another important element to safety and wellbeing is a patient's autonomy with regard to their need for being in hospital. Where a patient creates an oppositional dynamic with their treating team, their levels of aggression can be much higher.

121 The community setting can also be physically designed to be inclusive, less clinical and more welcoming. Incorporating multiple services and grouping people with diverse needs creates a space where people with mental illness will feel less objectified. Designing an environment where people feel comfortable is key, including using alternative spaces – community spaces, person's own home, cafes

Factors which protect and support carer and family safety and wellbeing

122 Violence within families or against carers of patients with mental health disorders is a significant issue. Family members are often dismissed by clinicians when they raise concerns about a patient.

123 There is no easy answer to this issue, as the decision of individual clinicians depends on how much weight that clinician puts on the information. Providing families or carers with a way for their voices to be heard or for them to express greater concern about a patient's illness, through advocacy, is vital to reducing violence. Here, the use of family peer support workers may be instrumental.

124 There is benefit to nurturing family relationships whilst the patient is in hospital. There are also benefits to working with patients and their nominated carer/family members collaboratively – providing education, brief family therapy interventions where needed, engaging in safety planning and relapse identification and prevention.

Factors which protect and support staff safety and wellbeing

125 The safety and wellbeing of staff is influenced by both the physical infrastructure and by any oppositional dynamic between clinicians and patients, especially around compulsory treatment. I address issues of compulsory treatment in paragraphs 135 to 151 below .

126 Staff training, especially for less experienced clinicians, may be helpful. This would be specifically on risk factors for interpersonal violence, early identification of escalation of hostile or aggressive behaviour and strategies to de-escalate and seek assistance.

Arrangements that services have in place to respond to the needs of consumers and staff when they do occur

127 Arrangements to respond to the needs of consumers and staff incidents include the use of post-incident discussion, once the patient has returned to a reasonable state. The discussion needs to be conducted by a senior clinician with training and not involved in the incident. The family can be involved from time to time and use of a support person can be valuable. The focus is on identifying triggers, alternate strategies to express negative emotions and guidance to staff as to how to deal with any such situation in the future.

128 Staff support systems, both local and external, are critical for affected staff.

Approaches to separating patient groups in mental health facilities that improve consumer experiences and safety

129 As discussed in paragraph 118 and 119 above, the physical design of spaces to create safe spaces as well as spaces for interaction are much more preferable to the current fashion of promoting segregation.

Strengthening existing regulatory frameworks and independent oversight mechanisms to improve the quality and safety of mental health services

130 At present, there is a tension between clinical service providers and the regulatory framework, in particular, the functioning of the Mental Health Tribunal (**Tribunal**).

131 This dynamic has evolved over a period of time. It is not clear to me whether this is related to the interpretation of the *Mental Health Act 2014* (Vic) (**Act**), or to cultural factors within clinicians, leaving them to interpret the Act differently to the Tribunal's interpretation.

132 This dynamic is causing significant difficulties at present. There appears to be a mismatch between practice and the regulatory framework. Both clinicians and the Tribunal believe they are acting in the best interests of the patient and their family, and that they are doing so within the interpretation of the Act.

133 However, the actual operationalisation of this completely differs between clinicians and the Tribunal. By way of example, a psychiatrist may seek a six month community treatment order, but the Tribunal may order a four week order. At the end of the four weeks, the psychiatrist may seek a further six month order, and another four week order may be granted. This process puts strain on all aspects of the system, in particular on patients and their families.

134 I do not know how the Royal Commission could address this issue. It may be helpful to have a mechanism to reinterpret the Act for both clinicians and Tribunal.

COMPULSORY TREATMENT

Benefits of compulsory treatment

135 In my view, there is value in providing compulsory treatment to a small proportion of patients.

136 Compulsory treatment has been effective in providing treatment to people who most need it, but who would fall through the cracks if they were not compulsorily treated. There is an illness specific phase that patients will go through, where compulsory treatment may be

necessary. In various disorders, such as schizophrenia, there is a period of time at which, if a patient does not engage in treatment, compulsory treatment will be required to achieve the best possible outcome for them. That period of time is highly variable, and can be very short or very long.

137 The converse situation, without compulsory treatment, is that people with mental illness disengage from service providers, resulting in adverse social consequences for them, including suicide and incarceration. This is akin to the situation in the United States, for example, where there are high levels of homelessness and incarceration for people not receiving mental health treatment.

138 Compulsory treatment goes some way to addressing that problem, and as such I believe there is a role for compulsory treatment. There is a cohort of patients for whom compulsory treatment is the only way they will engage with the system, and even down the track, they will not engage with further treatment unless it is compulsory. However, for the most part, compulsory treatment should be a transient step. The hope is that most patients who are compulsorily treated will then engage with further treatment without being compelled to do so. Parenthetically, it may also be that they choose not to receive treatment but pose no significant risk to themselves or others and hence should be free to do so.

139 My concern is that there appears to be a default position for clinicians to enforce compulsory treatment. That default position is likely process driven, in part by cultural practice, where an oppositional dynamic is created between the clinician and the patient and their family.

140 There are multiple stumbling blocks to people engaging with treatment, including the physical structures in which treatment is provided, the manner in which treatment is provided, and the relationship between staff, patients and their family, which create an oppositional dynamic.

141 That oppositional dynamic perpetuates the compulsory treatment paradigm, and needs to be short circuited. The way to do this is to introduce an intermediary function, such as a peer support type advocacy role, which can potentially appear to advocate for, and represent the perspective of, a patient in a way that is less antagonistic to clinicians, but is also equally seen as being supportive of patients and their family.

142 Advocacy in this context means allowing patients to feel as though they can express their frustration and anger towards compulsory treatment, particularly in an inpatient setting, and feel as though their voice can be adequately heard at the clinic team level. It also allows psychiatrists to recognise the issues that the patient is expressing. My experience

is that simply introducing into a clinical discussion an alternate position opens the clinical team to other modes of thinking and operating.

143 Peer support workers in this role will often be caught in a difficult position, however with appropriate training, support and guidance, they will be able to provide this alternate voice for patients and their family. In turn, this role and function will hopefully reduce the need for, and use of, compulsory treatment.

144 Choice and consent in psychiatry are fraught for the obvious reasons of safety, risk and compulsory treatment as alluded to above. However, there is another potent constraint on choice: the absence of alternative treatment choices. Psychiatry is limited in its armamentarium of effective interventions. For example, there are no demonstrably effective early interventions for psychosis despite insistent rhetoric to the contrary. There are exceedingly limited treatments for the major psychiatric disorders, no disease modifying treatments and for many disorders no treatments at all (beyond supportive), for example autism or anorexia nervosa. Hence patients and their families have no choice except a single treatment or no treatment. This is a disgraceful dichotomy where people must choose between intolerable side effects, partial response and impaired functioning or being desperately sick. It really is time to create a bolder vision than the current tinkering about with the system.

Alternative methods to compulsory treatment to engage people in treatment

145 Compulsory treatment is used as a last resort to attempt to engage a patient. In my view, one of the reasons there is such a need for compulsory treatment is because patients attending clinics believe the only reason they attend is to be given medication they are compelled to take, or be given an injection of an antipsychotic, and that is the only value add they receive from engaging in treatment. From their perspective, this is a negative outcome.

146 A way of engaging these patients is to provide them with other services to support their psychosocial needs. In addition, recovery focused interventions should be a core component of an integrated service hub. In order to support someone to recover from an episode of mental illness, it is necessary to provide the intervention and assistance they need to regain their level of functioning before they became unwell. This will not necessarily be only services such as housing or legal support, but rather recovery focused interventions that improve a person's sense of wellbeing, and help them to re-engage with study or work.

147 By providing this type of support in addition to medication, patients might see more value in engaging with mental health services. A consequence of that might be a reduction in the need for compulsory treatment.

148 To summarise there are three components to developing alternatives to compulsory treatment:

(a) the community service model redesign noted in paragraphs 42 to 44 above;

(b) peer support workers who function in an intermediary role; and

(c) family/carer support and education.

Therapeutic relationships and the use of compulsory treatment

149 The notion of a therapeutic alliance is predicated on the fact that most people with mental illness who are engaging with a mental health clinician can and want to derive the benefit associated with that. Ideally, this should begin with their first interactions with clinicians and post discharge from emergency departments. If positive engagement with a patient can be established from the start, their entire journey through the mental health system becomes infinitely better.

150 Parameters need to be established to permit that, including parameters around the physical infrastructure that surrounds people when they seek help, and the mechanisms and processes that lead to them getting the help they need. For example, if a person attends their GP, or presents in crisis to the police or ambulance services, the GP or emergency service officers know exactly how to give them that help or to swiftly direct them to the right service.

151 These initiatives promote engagement with mental health services, such that patients know there are clinicians and services who want to help and support them. This is in contrast to the current mental health system, where many people feel they will not receive assistance unless their condition is severe.

WORKFORCE CAPABILITIES

Composition, distribution and capabilities of the future workforce

152 A greater emphasis on online services and online resources would allow for a freeing up of mental health clinicians, and would work well for mental health services.

153 I do not think that video consultations are an appropriate norm for mental health, except in extreme circumstances such as COVID-19 or telemedicine for rural or regional patients where the patient has a clinician or support worker present. However, other mechanisms of communication are facilitated by a greater emphasis on online services and support, allowing patients and their familes to feel more engaged and supported. Therefore, room exists for more informal transactional relationships between patients and families with clinicians using telemedicine and other modes of communication but not as a replacement for therapeutic engagement.

154 The concept of a "case manager" should be dispensed with and these care coordination functions be devolved as described in paragraph 26 above to the mental health community support sector. This will permit some return of clinicians to discipline specific work. There needs to be considerable expansion of the peer support workforce both quantitatively but much more importantly, qualitatively. This includes lived experience and family / carer workers and must involve broader systems based knowledge as well as clinical and therapeutic knowledge and training.

Embedding continuous learning and improvement, including translation of research in professional practice

155 The continuation of learning and improvement, including research, is a fundamental gap between mental health and the rest of medicine. Mental health research is far behind the eight ball in the research field. There is a gap in envisioning a precision medicine of psychiatry, one that can truly transform outcomes for patients and families.

156 There is an enormous gulf between what is happening in clinical mental health practice and what is happening remotely in research laboratories. The reason for this is a profound divestment of resources in mental health research.

157 This can only be resurrected by fostering and implementing a research culture in the mental health system. It needs to be multidisciplinary research in all areas, and not just, for example, psychiatrists with PhDs conducting research. A lived experienced program is also an important component. Resurrecting a research culture requires reinjecting research into mainstream work practice, as it is through this that clinicians will become alive as to how research will improve practice.

158 At present, the difficulty is that research is hitting a cold workforce, one that has no experience with research. There is antagonism towards research, with many clinicians seeing it as a burden on their day to day work. The only way to overcome this is to embed research into mainstream practice.

159 There is a major gulf between where the mental health sector is and where it should be in terms of research. It is my hope that the proposed Collaborative Centre can partly serve as a role model in restoring the excellence and drive for innovation that is missing from public mental health. Anything else that the Royal Commission could do to support continuous learning and research would be hugely beneficial.

DIGITAL TECHNOLOGY AND INNOVATION

The use of digital technologies to transform healthcare and service delivery

160 Digital technology is an important advancement in our ability to engage with patients and our ability to intervene early. This includes not only detecting people who may be

imminently at risk of relapse, but also in providing them with prompts and resources, and a greater ability to self-manage their illness.

161 I was recently involved in a joint United Kingdom-Australian funded initiative, led by the University of Glasgow, which published two papers considering the use of a smart phone application that recognises early relapse in people with psychosis.[1]

162 I have also recently been approached by a company hoping to undertake a similar initiative with depression.

163 However, I do not think digital technologies should become a substitute for a one-on-one therapeutic relationship.

The use of digital capabilities and systems to support continuous improvement

164 The use of digital capabilities and systems to support continuous improvement relates to the clinical registry discussed in paragraphs 115 and 116 above. At present, there are no formalised clinical registries in mental health.

165 Obtaining real time data about how patients are functioning and progressing, and being able to draw collectively from that data to identify cohorts of people who are not doing well in our system, will alert us to the possibility that we need to consider what is being done inadequately and what improvements are required. It will also provide insight for other services if a particular approach is succeeding.

166 This is the sort of data analysis that Safer Care Victoria could potentially do at a state-wide level, and which networks around hospitals or aggregated health services should do.

167 Fantastic clinical registries exist for most of the major types of cancers state wide, even nationally. These registries include all data that could possibly be wanted to understand how a particular disease progresses, which treatments work and which treatments do not. There have been a number of 'game changing' publications that have arisen out of this. The management of prostate cancer, in particular, has been turned on its head as a result of this system.

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[1] Gumley A, et al. *Early Signs Monitoring to Prevent Relapse in Psychosis and Promote Well-Being, Engagement, and Recovery: Protocol for a Feasibility Cluster Randomized Controlled Trial Harnessing Mobile Phone Technology Blended With Peer Support.* **JMIR Res Protoc.** (2020) Jan 9;9(1):e15058.
Allan S, et al. *Developing a Hypothetical Implementation Framework of Expectations for Monitoring Early Signs of Psychosis Relapse Using a Mobile App: Qualitative Study* **Journal of internet medical research** (2019) 21 10 e14366

168 To implement such a registry for mental health would require additional resources, as a significant amount of additional data would need to be put into the registry. Linking the registry to electronic medical records would also be an important step. Issues have also been raised with respect to privacy and the collection of data, however I do not believe this is an obstacle, as we have strong systems in place to allow for collection of data in a way that does not identify people.

169 It would be beneficial to speak with those involved with the cancer registries, to learn how they have been able to implement these systems.

170 A key difference is that, for cancer, a tissue repository has been able to be incorporated into the registry, allowing them to make more sophisticated interpretations of the data. The closest equivalent in mental health would be genomic data, which will be potentially of global benefit. Hence I would recommend establishing a clinical registry in conjunction with a bio-resource.

171 The fact that mental health diagnoses can manifest differently for different people is not a barrier to developing this type of registry. There are no clear cut diagnostic boundaries, as there are no biological designates for particular disorders. As a result, data would need to be collected broadly as an input. The data would be input into the registry, and a person's course through the system would be traced so that we can identify what might lead to positive or negative outcomes. This might be driven by treatment or by psychosocial factors.

RESEARCH AND EVALUATION

The importance of translational research in a contemporary health system and the benefits to patient outcomes

172 I have worked at both Monash University and the University of Melbourne. The clinical services I have been involved with have been research 'cold', with minimal or trivial experience with research.

173 At times, there is an initial resistance to research. However, we have found that over a short period of time, a cohort of clinicians become excited by the prospect of engaging in research and come on board to assist. Additionally, and importantly, family and patients are also eager to be involved in research that might improve their situation, or that might benefit other people down the track.

174 Many people assist in research even when the research does not directly benefit them, but might benefit other people in the future. The Australian community wants to engage in research if there might be a future benefit to others.

175 The mental health system is so far behind much of medicine in respect of research, as it lacks innovation or translational research. This needs to be reinjected back into the system. I am hopeful that the new Collaborative Centre will be the vanguard for this. However, it also requires support at various nodes within the system as a whole.

176 In general, the advocates for research within the system are those with joint appointments, such as joint hospital and academic appointments. The system needs to continue to develop those functions and roles. Clinical academic roles need to be expanded, and be multidisciplinary, not just psychiatrist focused.

177 There is also a need for lived experience research, which will require significant nurturing to support it.

178 It is time to imagine a future for mental health that approaches that seen in other areas of medicine including cancer, immunology and autoimmune disorders. This is a future where truly disease modifying treatments and effective early interventions are available. This is a future where patients and families can really exercise choice about treatment and where collaborative partnerships between patient and clinician can exist. This type of transformational translational research has been buried beneath the lure of simple but appealing ideas. To emerge, it really requires a deep commitment and investment but is an achievable strategic long-term goal that promises outcomes comparable to cancer

Enablers required to foster integrated service delivery and research environments

179 The Collaborative Centre should be the role model for integrated mental health service delivery and it would do well to take learnings from the VCCC-Peter MacCallum development. Moreover, the integration and embedding of academic clinicians within services in key leadership roles (but not burdened by managerial or clinical overload) is essential. From this is the active engagement with patients and families in a shared vision of improved possibilities is key.

The development and implementation of new and innovative service models to meet consumer needs

180 To develop and implement new and innovative service models, what is required is to bring together all of the research active leaders and organisations, both potentially and currently research active, in a way that forms a Victorian network. For example, a network of clinical trials, rehabilitation research, or inpatient research across Victoria.

181 In other words, at a Victoria-wide level, the system should facilitate a network of research active, and potentially research interested, agencies to come together and set a research agenda and facilitate research activities.

182 For example, if a pharmaceutical company develops a new drug to treat bipolar disorder, that company approaches one agency, and the drug can be trialled across the whole state. Similarly, if a new model of care is developed in another state, it can come to a single body in Victoria and be rolled out across services throughout the state. If those interventions are shown to work, it only requires a small amount of additional support to roll them out and get them functioning across the whole state in a cohesive manner.

COVID-19

The emerging changes in mental health service delivery as a consequence of COVID-19

183 The pandemic has required flexibility on the part of many clinicians including adopting more informal approaches to interacting with patients and families. This includes the use of electronic communications, briefer and more frequent interactions which has promoted more self-management by patients and families. There has been a decrease in self-harming behaviours but this may be temporary and possibly accompanied by a subsequent spike. There have also been changes in out-reach; it has been curtailed and replaced by alternate forms of crisis engagement – emergency departments, telehealth.

Whether these changes could emerge into longer term opportunities for new approaches to service delivery, for the benefit of consumers and carers

184 The adoption of less formal, briefer and more frequent interactions seems useful especially when electronic communications are used. This can make more efficient use of time and resources for patients, families and clinicians. Importantly, these should be restricted to transactional interactions and are not a substitute for therapeutic engagement or treatment. It also highlights the relative inefficiency of crisis outreach.

sign here ► 

print name SURESH SUNDRAM

date 19th May, 2020

Royal Commission into
Victoria's Mental Health System

ATTACHMENT SS-1

This is the attachment marked 'SS-1' referred to in the witness statement of Professor Suresh Sundram dated 19th May 2020.

CURRICULUM VITAE

NAME: Professor Suresh Sundram MBBS, MMed, FRANZCP, PhD

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Qualifications

Doctor of Philosophy (**PhD**), University of Melbourne.
Fellowship (**FRANZCP**), Royal Australian and New Zealand College of Psychiatrists.
Master of Medicine (Psychiatry) (**MMed**), University of Melbourne.
Bachelor of Medicine and Surgery (**MBBS**), University of Melbourne.

Current Positions

2019- Professor and Head, Department of Psychiatry, School of Clinical Sciences, Monash University

2019- Director of Research, Mental Health Program, Monash Health

Previous positions held

2015-19 **Unit Head,** Adult Psychiatry, Monash Medical Centre, Monash Health

2015-19 **Professor,** Department of Psychiatry, School of Clinical Sciences, Monash University (Adjunct Clinical)

2002-15 **Director of Clinical Services**, Northern Area Mental Health Service, North Western Mental Health, Melbourne Health

2004-15 **Head,** Molecular Psychopharmacology, Florey Institute of Neuroscience and Mental Health (formerly Mental Health Research Institute)

2004-15 **Associate Professor,** Department of Psychiatry, University of Melbourne

2004-15 **Director**, Northern Psychiatry Research Centre

2012-15 **Head,** Statewide Psychotropic Drug Advisory Service, Florey Institute of Neuroscience and Mental Health

2000-01 **Woods Family Research Fellow**, Rebecca L. Cooper Laboratories, Mental Health Research Institute of Victoria with Associate Professor Brian Dean.

1999-2002 **Consultant Psychiatrist**, Northern Area Mental Health Service, North Western Mental Health, Melbourne Health

Senior Research Fellow, Rebecca Cooper Laboratories, MHRI

1999 **Lilly Psychiatry Research Fellow**, Mental Health Research Institute of Victoria supervised by Professor David Copolov.

Professional Profile

Overview

Professor Sundram is Chair and Head, Department of Psychiatry, School of Clinical Sciences, Monash University. He is a psychiatrist and neuroscientist committed to understanding the biological foundations of schizophrenia and related disorders in order to improve the lives of affected patients and families through the development of relevant biomarkers and ultimately disease modifying treatments.

He trained in psychiatry and neuropsychiatry at the Royal Melbourne Hospital after graduating from Medicine at the University of Melbourne. He completed his PhD at the Mental Health Research Institute examining biomarkers in schizophrenia and then undertook a post-doctoral post there conducting the first neurobiological studies of the endocannabinoid system in schizophrenia. He then established his own molecular laboratory there in conjunction with a clinical research laboratory at the Northern Hospital which he ran concurrently for over a decade. He was given an opportunity in 2015 to co-locate his clinical and research streams through Monash University and Monash Health at the Monash Medical Centre and Monash Health Translation Precinct. In 2019 he was Head of the Department of Psychiatry and Director of Research for the Mental Health Program at Monash Health.

He has striven to directly improve the health care of people with these disorders throughout his senior career by always combining his research and clinical service path. Hence, for much of his career he has taken on large (at least 0.5 FTE) administrative, clinical and management roles in conjunction with his research programs.

Schizophrenia and related disorders

Professor Sundram established the Molecular Psychopharmacology Laboratory at the Mental Health Research Institute in 2004 which moved into the Florey Institute of Neuroscience and Mental Health. This first laboratory undertook research into the molecular bases of psychotic disorders and psychotropic drug action and established his international reputation in the neuropsychopharmacology of schizophrenia and antipsychotic drug action. Due to this profile he was appointed Head of the Statewide Psychotropic Drug Advisory Service at the Florey Institute of Neuroscience and Mental Health in 2012 until his departure in 2015.

He concurrently established the Northern Psychiatry Research Centre which undertakes research into the pathology and treatment of the major psychotic disorders with special emphases on; genetic and biological markers in schizophrenia; treatment studies in bipolar disorder, schizophrenia and major depression; psychological interventions in schizophrenia. The Centre conducted in excess of 30 phase II, IIIA, IIIB and IV industry sponsored clinical trials with a range of sponsors and CROs including Astra Zeneca,

Bristol Myer Squibb, Covance, Eli Lilly, Janssen, Lundbeck, Organon, Otsuka, Pfizer, Roche and Sanofi.

With support from Monash University and Monash Health he transferred in 2015 his research and clinical programs and established the Translational Molecular Psychiatry research program at Monash Medical Centre, Department of Psychiatry, School of Clinical Sciences, Monash University and Monash Health. This is evolving as an integrated program spanning molecular and cellular studies, animal behavioural neuroscience, biomarker and clinical research and clinical trial investigations into psychotic disorders. The program has since inception 8 post-doctoral researchers, and 15 post-graduate students contributing to more than 30 research publications, and, in collaboration with Monash University, national and international research groups, been granted over $2m in research funding. This will substantially increase with recent approval of two international multisite early phase industry sponsored clinical trials in schizophrenia. In 2017 he was appointed Co-chair of the Neuroscience and Mental Health stream of Monash Partners, an NHMRC supported Academic Health Science Centre.

Mental health of forced migrants

In addition he has a deep interest in the mental health of forced migrants, specifically asylum seekers. This has evolved into both research and clinical domains and his national and international profile has resulted in him providing clinical and policy advice in international and national contexts. These contexts have included the United Nations High Commissioner for Refugees; the United Nations Human Rights Council; the Australian and Nauruan Governments and the United States of America Department of Homeland Security and State Department. He has established two clinical services, most recently the Cabrini Asylum Seeker and Refugee Health Hub through funding in excess of $2.5m from Cabrini Health. His research has attracted over $1m and he has supervised doctoral, post-doctoral and post-graduate students past and current. Moreover, he has supervised and mentored in these clinical and research domains over 30 psychiatrists and psychiatry registrars.

Clinical roles

Professor Sundram, following a brief time as a consultant psychiatrist, has for most of his career been the Clinical Director of major metropolitan adult mental health services in Melbourne, Australia. In these roles he has variously implemented: a comprehensive clinical risk review strategy; a supervision framework for all clinicians; a clinical governance framework; education, teaching and supervision programs for post-graduate trainees and consultant psychiatrists and a research advisory committee. He has undertaken numerous innovative service reforms and improvements which have been recognised with major State awards and state-wide policy changes. Additionally, he oversaw a doubling of his patient bed capacity and developed and implemented a radical transformation of community based care.

An integral part of these roles include the fiscal, administrative and human resource management of workforces exceeding 130 people and budgets of $20m. Leadership of a

number of peak committees and structures within the service including: quality improvement, mortality and morbidity, physical health; and membership of program wide executive, clinical heads, research, quality and safety and mortality and morbidity committees.

Professor Sundram is also a trained Group Psychoanalyst and member of the Australian Association of Group Psychotherapists.

International roles

Expert Consultant, United Nations High Commissioner for Refugees (2015-2018)
Independent Advisor, Governments of Australia and Nauru on Nauruan Regional Processing (2018)
Council Member, Asian College of Neuropsychopharmacology (2017-2022)
Chair (2014-2018) and Member (2013-2014), Physical and Mental Health Sub-Committee, Joint Advisory Committee to the Governments of Australia and Nauru on Nauruan Regional Processing
Member, Joint Advisory Committee to the Governments of Australia and Nauru on Nauruan Regional Processing (2014-2018)
Co-Chair, Asian Schizophrenia Network with Prof. M. Takeda (Japan) (2012-14)
Executive Committee Member (2008-14) and Member (2014-current), Section on Developing Countries, World Psychiatric Association
Member, scientific committees for recent international conferences including the Asian Congress of Schizophrenia Research, the World Congress of Asian Psychiatry, Australasian Schizophrenia Congress and the World Psychiatric Association Thematic Congresses in 2013 and 2018.

National roles

Member, Mental Health sub-committee, Immigration Health Advisory Group to the Department of Immigration and Border Protection (2013)
Expert Advisor, immigration detention, Australian Human Rights Commission (2010-12)
Member, national Advisory Boards for Astra Zeneca, Janssen, Lundbeck, Otsuka, Pfizer, and Roche.

State roles

Member, Expert Taskforce on Mental Health 10 Year Mental Health Plan – Innovation Reference Group (2016-18)
Expert Advisor, Office of the Chief Psychiatrist, Framework for Physical Health Care Of People With Mental Illness In Victoria (2018-current)
Expert Advisor, clinical risk management, Victorian Department of Health, Mental Health Branch (2010-12)
Member, VCE Psychology curriculum review panel, Victorian Curriculum and Assessment Authority (2009-11)

Awards

Gold Award, Victorian Public Health Care Awards, Healthcare Innovation, Excellence in person-centred care (2014)
AMP Tomorrow Maker Award (2014)
Gold Award, Victorian Public Health Care Awards, Improving Quality Performance (2010)
Neuroscience Research Grant (for 10 outstanding young neuroscientists) (2003)
Fellowship by the World Congress of Biological Psychiatry (2001)
Woods Family Trust Fellowship (2000)
Poster Award from the Collegium Internationale for Neuropsychopharmacologicum (2000)
Lilly Psychiatry Fellowship, Royal Australian New Zealand College of Psychiatrists (1998)

Teaching

Medical students
Lecturing to Monash and previously to Melbourne University students (2002-current).
Member of review process of Monash University psychiatry curriculum (2017-current).
Co-ordinated and taught psychiatry to Melbourne University medical students at the Northern Hospital (2002-2015).

Post-graduate psychiatry
Devised and coordinated the Neurosciences component of the Masters degree for psychiatry trainees in Victoria that taught in excess of 300 registrars (1998-2012)
Supervises and teaches psychiatry registrars at Monash Medical Centre and previously at North Western Mental Health.
Invited lectures to psychiatrists locally, nationally and internationally
Member, Accredited Examiners Panel, Royal Australian and New Zealand College of Psychiatrists (2008-2014)

Supervision and Mentoring

Supervised 10 post-doctoral scientists, 7 doctoral (6 completed; 2 current), 1 Masters and 19 honours and equivalent students. Post-doctoral scientists have received 2 NHMRC Career Development Awards, 1 ARC Future Fellowship, 2 NHMRC CJ Martin Fellowships and others are currently employed in research only positions in Australian and Canadian universities.
Through personal supervision of registrars has attracted 5 psychiatrists into psychopharmacology research and 3 into PhDs.
In 2011 created with Commonwealth funding a research registrar position in experimental and clinical psychopharmacology.

Peer review involvement

Board Member, Council, Asian College of Neuropsychopharmacology (2017-current)
Member, Scientific Advisory Committee, Rebecca L Cooper Medical Research Foundation (2018-current)
Editorial Board member, Sri Lanka Journal of Psychiatry (2015-current)
Deputy Editor, Asian Journal of Psychiatry (2008-2014)
Ad hoc reviewer for NHMRC, Canadian and Irish Medical Research Councils, New Zealand Neurological Society, Czech Science Foundation and the following journals: Int J Neuropsychopharm; J Psychopharmacology; Int J Psychogeriatrics; Human Psychopharmacology; Prog Neuropsychopharm and Biol Psychiatry; Current Drug Abuse Reviews; Acta Psychiatrica Scand; Current Therapies; Arch Gen Psychiatry; European Neuropsychopharmacology; Biological Psychiatry; ANZ J Psychiatry; Compr Psychiatry; PLoS One; J Affective Disorders

Professional Bodies

Fellow of the Royal Australian and New Zealand College of Psychiatrists
Fellow of the Collegium Internationale Neuropsychopharmacologicum
Member, Schizophrenia International Research Society
Member, Asian College of Neuropsychopharmacology
Member, Australian Neuroscience Society
Member, Biological Psychiatry Australia,
Member, Australian Association of Group Psychotherapists

Selected publications

1. Wells R, Jacomb I, Swaminathan V, Sundram S, Weinberg D, Bruggemann J, Cropley V, Lenroot R, Pereira A, Zalesky A, Bousman C, Pantelis C, Shannon Weickert C, Weickert TW. *The impact of childhood adversity on cognitive development in schizophrenia* **Schizophrenia Bulletin** (2020) 46(1): 140-153.
2. Gumley A, Bradstreet S, Ainsworth J, Allan S, Alvarez-Jimenez M, Beattie L, Bell I, Birchwood M, Briggs A, Bucci S, Castagnini E, Clark A, Cotton SM, Engel L, French P, Lederman R, Lewis S, Machin M, MacLennan G, Matrunola C, McLeod H, McMeekin N, Mihalopoulos C, Morton E, Norrie J, Reilly F, Schwannauer M, Singh SP, Smith L, Sundram S, Thomson D, Thompson A, Whitehill H, Wilson-Kay A, Williams C, Yung A, Farhall J, Gleeson J. *Early Signs Monitoring to Prevent Relapse in Psychosis and Promote Well-Being, Engagement, and Recovery: Protocol for a Feasibility Cluster Randomized Controlled Trial Harnessing Mobile Phone Technology Blended With Peer Support.* **JMIR Res Protoc.** (2020) Jan 9;9(1):e15058.
3. Van Rheenen TE , Cropley V, Fagerlund B, Wannan C, Bruggemann J, Lenroot RK, Sundram S, Shannon Weickert C , Weickert TW, Zalesky A, Bousman CA, Pantelis C. *Cognitive reserve attenuates age-related cognitive decline in the context of putatively accelerated brain ageing in schizophrenia-spectrum disorders*. **Psychol. Med.** (2019) 1-15.

4. Allan S, Bradstreet S, Mcleod H, Farhall J, Lambrou M, Gleeson J, Clark A, Ainsworth J, Bucci S, Lewis S, Machin M, Yung A, Alvarez M, Cotton S, Lederman R, Birchwood M, Singh S, Thompson A, Briggs A, Williams C, French P, MacLennan G, Mihalopolous C, Norrie J, Schwannauer M, Reilly F, Smith L, Sundram S, Gumley A. *Developing a Hypothetical Implementation Framework of Expectations for Monitoring Early Signs of Psychosis Relapse Using a Mobile App: Qualitative Study* **Journal of internet medical research** (2019) 21 10 e14366
5. Harrington A, Darke H, Ennis G and Sundram S. *Evaluation of an alternative model for the management of clinical risk in an adult acute psychiatric inpatient unit* **International Journal of Mental Health Nursing** (2019) 28(5):1102-1112.
6. T Kelly, S Sundram, S Lawn, B Hamilton Heartscapes: *Researching the complex interplay of mental illness on cardiovascular health in everyday life* **International Journal of Mental Health Nursing** (2019) 28:26
7. Schroeder A, Nakamura JP, Hudson M, Jones NC, Du X, Sundram S and Hill RA. *Raloxifene recovers effects of prenatal immune activation on cognitive task-induced gamma power* **Psychoneuroendocrinology** (2019) 110:104448
8. Sundram S. *Schizophrenia in the light of precision medicine: a time for reconsideration.* **Sri Lankan J of Psychiatry.** (2019) 10(1).
9. Nakamura JP, Schroeder A, Hudson M, Jones N, Gillespie B, Du X, Notaras M, Swaminathan V, Reay WR, Atkins JR, Green MJ, Carr VJ, Cairns MJ, Sundram S, and Hill RA. *The maternal immune activation model uncovers a role for the Arx gene in GABAergic dysfunction in schizophrenia.* **Brain Behavior and Immunity**. (in press accepted 05/06/19).
10. Hoffmann C, Van Rheenen TE, Mancuso SG, Zalesky A, Bruggemann J, Lenroot RK, Sundram S, Weickert CS, Weickert TW, Pantelis C, Cropley V, Bousman CA. *Exploring the moderating effects of dopaminergic polymorphisms and childhood adversity on brain morphology in schizophrenia-spectrum disorders*. **Psychiatry Res Neuroimaging.** 2018 Sep 13;281:61-68.
11. Bousman CA, Cropley V, Klauser P, Hess JL, Pereira A, Idrizi R, Bruggemann J, Mostaid MS, Lenroot R, Weickert TW, Glatt SJ, Everall IP, Sundram S, Zalesky A, Weickert CS, Pantelis C. *Neuregulin-1 (NRG1) polymorphisms linked with psychosis transition are associated with enlarged lateral ventricles and white matter disruption in schizophrenia.* **Psychol Med.** (2018) Apr;48(5):801-809.
12. Hocking DC, Mancuso SG, Sundram S. *Development and validation of a mental health screening tool for asylum-seekers and refugees: the STAR-MH.* **BMC Psychiatry** 2018 Mar 16;18(1):69.
13. Van Rheenen TE, Cropley V, Zalesky A, Bousman C, Wells R, Bruggemann J, Sundram S, Weinberg D, Lenroot RK, Pereira A, Shannon Weickert C, Weickert TW, Pantelis C. *Widespread Volumetric Reductions in Schizophrenia and Schizoaffective Patients Displaying Compromised Cognitive Abilities.* **Schizophrenia Bulletin** (2017) Dec 11;7(12):1280.
14. Mostaid MS, Lee TT, Chana G, Sundram S, Shannon Weickert C, Pantelis C, Everall I, Bousman C. *Elevated peripheral expression of neuregulin-1 (NRG1) mRNA isoforms in clozapine-treated schizophrenia patients.* **Transl Psychiatry** (2017) Dec 11;7(12):1280

15. Sundram S, Ventevogel P. *The mental health of refugees and asylum seekers on Manus Island.* **Lancet**. 2017 Dec 9;390(10112):2534-2536.

16. Mostaid MS, Lee TT, Chana G, Sundram S, Shannon Weickert C, Pantelis C, Everall I, Bousman C. *Peripheral Transcription of NRG-ErbB Pathway Genes Are Upregulated in Treatment-Resistant Schizophrenia.* **Front Psychiatry**. (2017) Nov 6;8:225.

17. Kelly S, Jahanshad N,…Sundram S… Thompson P and Donohoe G *Widespread white matter microstructural differences in schizophrenia across 4,322 individuals: results from the ENIGMA Schizophrenia DTI Working Group*. **Mol Psychiatry** (2018) May;23(5):1261-1269.

18. Carter O, Bennett D, Nash T, Arnold S, Brown L, Cai RY, Allan Z, Dluzniak A, McAnally K, Burr D, Sundram S. *Sensory integration deficits support a dimensional view of psychosis and are not limited to schizophrenia.* **Transl Psychiatry** (2017) May 9;7(5):e1118.

19. Cropley VL, Klauser P, Lenroot RK, Bruggemann J, Sundram S, Bousman C, Pereira A, Di Biase MA, Weickert TW, Weickert CS, Pantelis C, Zalesky A. *Accelerated Gray and White Matter Deterioration with Age in Schizophrenia.* **Am J Psychiatry (**2017) Mar1;174(3):286-295.

20. Mostaid MS, Mancuso SG, Liu C, Sundram S, Pantelis C, Everall IP, Bousman CA. *Meta-analysis reveals associations between genetic variation in the 5′ and 3′ regions of Neuregulin-1 and schizophrenia.* **Transl Psychiatry** (2017) Jan 17;7(1):e1004.

21. Mostaid MS, Lloyd D, Liberg B, Sundram S, Pereira A, Pantelis C, Karl T, Weickert CS, Everall IP, Bousman CA. *Neuregulin-1 and schizophrenia in the genome-wide association study era.* **Neurosci Biobehav Rev.** (2016) Sep; 68:387-409.

22. Idrizi R, Malcolm P, Shannon Weickert C, Zavitsanou K, Sundram S. *Striatal but not frontal cortical up-regulation of the epidermal growth factor receptor in rats exposed to immune activation in utero and cannabinoid treatment in adolescence.* **Psychiatry Res.** (2016) June 30: 240: 260-264.

23. Bennett D, Dluzniak A, Cropper S, Partos T, Sundram S, Carter O. *Selective impairment of global motion integration, but not global form detection, in schizophrenia and bipolar affective disorder.* **Schizophrenia Research: Cognition** (2016) March; 3:11-14

24. Wells R, Swaminathan V, Sundram S, Weinberg D, Bruggemann J, Jacomb I, Cropley V, Lenroot R, Pereira AM, Zalesky A, Bousman C, Pantelis C, Shannon Weickert C, Weickert TW. *The impact of premorbid and current intellect in schizophrenia: cognitive, symptom, and functional outcomes.* **NPJ Schizophrenia** (2015) 1; publ. online 04/11/15.

25. Hocking D, Sundram S. *Demoralisation syndrome does not explain the psychological profile of community-based asylum-seekers.* **Compr Psychiatry**. (2015) Nov;63:55-64.

26. Hocking DC, Kennedy GA, Sundram S. *Social factors ameliorate psychiatric disorders in community-based asylum seekers independent of visa status*. **Psychiatry Res.** (2015) Dec 15;230(2):628-36.

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33. Pereira, A.; Sugiharto-Winarno, A.; Zhang, B.; Malcolm, P.; Fink, G.; Sundram, S. *Clozapine induction of ERK1/2 cell signalling via the EGF receptor in mouse prefrontal cortex and striatum is distinct from other antipsychotic drugs* **Int J Neuropsychopharmacol** (2012) 15 8 1149-60

34. Furtos, J.; Sundram, S. *Globalisation and mental health: the Lyon Declaration* **Asian J Psychiatr** (2012) 5 3 283-5

35. Scarr, E.; Sundram, S.; Deljo, A.; Cowie, T. F.; Gibbons, A. S.; Juzva, S.; Mackinnon, A.; Wood, S. J.; Testa, R.; Pantelis, C.; Dean, B. *Muscarinic M1 receptor sequence: preliminary studies on its effects on cognition and expression* **Schizophr Res** (2012) 138 1 94-8

36. Mohan, I.; Sundram, S. *Successful use of electroconvulsive therapy in a patient with atrial septal defect* **Aust N Z J Psychiatry** (2012)

37. Sundram, S.; Vikas, A.; Kenchaiah, B. *The Third World Congress of Asian Psychiatry, Melbourne, Australia* **Asian Journal of Psychiatry** (2011) Sep;4(3):230-1.

38. D'Souza, R.; Piskulic, D.; Sundram, S. *A brief dyadic group based psychoeducation program improves relapse rates in recently remitted bipolar disorder: a pilot randomised controlled trial* **J Affect Disord** (2010) 120 1-3 272-6

39. Deva, M. P.; D'Souza, R.; Sundram, S. *Developing mental health resources for low and medium income countries of the Pacific-The Cook Islands experience* **Asian J Psychiatr** (2010) 3 1 47-8

40. Happell, B.; Sundram, S.; Wortans, J.; Johnstone, H.; Ryan, R.; Lakshmana, R. *Assessing nurse-initiated care in a mental health crisis assessment and treatment team in Australia* **Psychiatr Serv** (2009) 60 11 1527-31

41. Pereira, A.; Fink, G.; Sundram, S. *Clozapine-induced ERK1 and ERK2 signaling in prefrontal cortex is mediated by the EGF receptor* **J Mol Neurosci** (2009) 39 1-2 185-98

42. Scarr, E.; Cowie, T. F.; Kanellakis, S.; Sundram, S.; Pantelis, C.; Dean, B. *Decreased cortical muscarinic receptors define a subgroup of subjects with schizophrenia* **Mol Psychiatry** (2009) 14 11 1017-23

43. Gibbons, A. S.; Scarr, E.; McLean, C.; Sundram, S.; Dean, B. *Decreased muscarinic receptor binding in the frontal cortex of bipolar disorder and major depressive disorder subjects* **J Affect Disord** (2009) 116 3 184-91

44. Graco, M.; Berlowitz, D. J.; Fourlanos, S.; Sundram, S. *Depression is greater in non-English speaking hospital outpatients with type 2 diabetes* **Diabetes Res Clin Pract** (2009) 83 2 e51-3

45. Keks, N. A.; Hill, C.; Sundram, S.; Graham, A.; Bellingham, K.; Dean, B.; Opeskin, K.; Dorissa, A.; Copolov, D. L. *Evaluation of treatment in 35 cases of bipolar suicide* **Aust N Z J Psychiatry** (2009) 43 6 503-8

46. Berk, M.; Gama, C. S.; Sundram, S.; Hustig, H.; Koopowitz, L.; D'Souza, R.; Malloy, H.; Rowland, C.; Monkhouse, A.; Bole, F.; Sathiyamoorthy, S.; Piskulic, D.; Dodd, S. *Mirtazapine add-on therapy in the treatment of schizophrenia with atypical antipsychotics: a double-blind, randomised, placebo-controlled clinical trial* **Hum Psychopharmacol** (2009) 24 3 233-8

47. Deva, M.P.; D'Souza, R.; Sundram, S. *Regional update: Cambodia* **Asian J Psychiatr. 2009** Oct;2(3):120-1

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51. McLeod, M. C.; Sundram, S.; Dean, B. *Treatment with haloperidol and diazepam alters GABA(A) receptor density in the rat brain* **Prog Neuropsychopharmacol Biol Psychiatry** (2008) 32 2 560-7

52. Sundram, S. *The mental health of refugees and asylum seekers in Australia* **Medicine Today** (2010) 11 7 81-83

53. Scarr E, Sundram S, Keriakous D, Dean B. *Altered hippocampal muscarinic M4, but not M1, receptor expression from subjects with schizophrenia.* **Biol Psychiatry**. 2007 May 15;61(10):1161-70.

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News 2007 12, 6.

55. Lashmana R, Sundram S, Cairns F. *Dementia with Lewy Bodies (DLB) presenting with catatonic symptoms.* **Psychogeriatrics** 2006; 21:245-254.
56. Sundram S. *Cannabis and neurodevelopment: implications for psychiatric disorders.* **Hum Psychopharmacol**. 2006 Jun;21(4):245-54. Review.
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58. Sundram S, Copolov D, Dean B. *Clozapine decreases [3H] CP 55940 binding to the cannabinoid 1 receptor in the rat nucleus accumbens.* **Naunyn Schmiedebergs Arch Pharmacol.** 2005 May;371(5):428-33.
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61. Scarr E, Pavey G, Sundram S, MacKinnon A, Dean B. *Decreased hippocampal NMDA, but not kainate or AMPA receptors in bipolar disorder.* **Bipolar Disord.** 2003 Aug;5(4):257-64.
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63. Dean B, Sundram S, Bradbury R, Scarr E, Copolov D. *Studies on [3H]CP-55940 binding in the human central nervous system: regional specific changes in density of cannabinoid-1 receptors associated with schizophrenia and cannabis use.* **Neuroscience.** 2001;103(1):9-15.
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69. Sundram S. *Understanding the mental health of asylum seekers in Australia.* **Health Matters** (2017) 82:30-33.

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75. S. Sundram. *Antipsychotic drugs and stress* in **Encyclopaedia of Stress,** G. Fink, Ed. (Academic Press, 2007).

76. S. Sundram and A. Pereira. *Comorbid disorders and stress* in **Encyclopaedia of Stress**, G. Fink, Ed. (Academic Press, 2007).

77. S. Sundram, K. Bellingham. *The Depression Awareness Research Project* p.312-318 in **Implementing Mental Health Promotion,** M. Barry, R. Jenkins, Eds. (Churchill Livingstone, Philadelphia, 2007).

78. S. Sundram, D. J. Castle, Cannabis and the brain: implications of recent research p.81-100 in **Translation of Addictions Science into Practice,** P. Miller, D. Kavanagh, Eds. (Pergamon, Oxford, 2007).

79. N. Cole, S. Sundram, *Surviving bipolar disorder* p. 15-21 in **Mood Disorders,** P. R. Joyce, P. B. Mitchell, Eds. (University of New South Wales Press, Sydney, 2004).

80. S. Sundram, B. Dean, D. L. Copolov, *The endogenous cannabinoid system in schizophrenia* p.127-141 in **Marijuana and Madness,** D. J. Castle, R. M. Murray, Eds. (Cambridge University Press, Cambridge, 2004).

81. S. Sundram, *Some reflections on the psychological morality posed by asylum seeking* in **Perspectives on Human Presence**, J Malpas, R. Melick, Eds. (Springer, in press).

82. S. Sundram et al. *Research in mental disorders and mental health practice* in **Mental Health in Australia** 4th edition (in press)

83. Office of the United Nations High Commissioner for Refugees [T Albrecht, C Taoi, S Sundram, C Phillips et al.]. *Submission to the Inquiry into the serious allegations of abuse, self-harm and neglect of asylum seekers in relation to the Nauru Regional Processing Centre, and any like allegations in relation to the Manus Regional Processing Centre* (Senate Legal and Constitutional Affairs Committee submission, November 2016)

84. Australian Human Rights Commission [Sundram S. et al.]. *Summary of observations from visit to immigration detention facilities at Villawood* (Australian Human Rights Commission, Sydney, 2011).

85. Australian Human Rights Commission [Sundram S. et al.]. *Summary of observations from visits to immigration detention facilities in Darwin* (Australian Human Rights Commission, Sydney, 2010).

Selected invited contributions to international and national scientific meetings

Plenary lecture: 2019 Cottrell Memorial Lecture, Royal Australasian College of Physicians, Auckland, 2019
Invited Speaker: 2019 Supreme and Federal Court Judges Conference, Hobart, 2019
Plenary lecture: 2018 National Annual Academic Sessions of the Sri Lanka College of Psychiatrists, Colombo, 2018
Invited Speaker: Judicial Council on Cultural Diversity, Adelaide, 2018
Invited Speaker: UNHCR Consultations with Non-Government Organizations, Canberra, 2018
Invited Speaker: International World Psychiatric Association Thematic Meeting, Melbourne, 2018
Invited Speaker: Asian College of Neuropsychopharmacology, Bali, 2017.
Invited Speaker: Royal Australian and New Zealand College of Psychiatrists Congress, Hong Kong, 2016
Invited Speaker: Joske Colloquium, Hobart, 2015
Plenary lecture: Society for Mental Health Research Meeting, Brisbane, 2015
Invited Speaker: 3rd Biological Psychiatry Australia Meeting , Brisbane, 2013
Invited Speaker: 3rd Asian Congress on Schizophrenia Congress, Bali, 2013
Invited Speaker: 3rd Asian Congress on Schizophrenia Congress, Bali, 2013
Invited Speaker: Australasian Schizophrenia Conference, Melbourne, 2013
Invited Speaker: Melbourne Health Research Week, Melbourne, 2013
Invited Speaker: World Psychiatric Association – Vietnam Psychiatric Association Meeting, Hanoi, 2012
Invited Speaker: Indo-Global Psychiatry Initiative, Kochi, 2012
Invited Speaker: Asian Congress on Schizophrenia Research, Seoul, 2011
Invited Speaker: World Congress of Asian Psychiatry, Melbourne, 2011
Invited Speaker: Indo-Global Psychiatry Initiative, New Delhi, 2011
Invited Speaker: International Mental Health Conference: Schizophrenia: Where do we go from here?, Invercargill, 2010
Invited Speaker: International Review of Bipolar Disorders, Kochi, 2009
Plenary Lecture: Indian Association for Biological Psychiatry Annual Meeting, Goa 2009
Invited Speaker: World Psychiatric Association International Congress – Australian Society for Psychiatric Research, Melbourne 2007
Plenary Lecture: International Conference of South Asian Federation of Psychiatric Associations, Kalutara 2007

Oral presentations: Australian Society for Bipolar Disorders, Sydney 2007
Plenary Lecture: World Congress of Asian Psychiatry, Goa 2007
Plenary Lecture: Indian Association for Biological Psychiatry Annual Meeting, Kochi 2006
Invited Speaker: International Congress of Neuropsychiatry, Sydney 2006
Invited Speaker: Collegium Internationale Neuropsychopharmacologicum Meeting, Chicago 2006
Invited Speaker: World Psychiatric Association European Annual Meeting, Istanbul 2006
Invited Speaker: South Asian Forum on Psychiatry Annual Meeting, Toronto 2006
Invited Speaker: World Psychiatric Association American Annual Meeting, Havana 2006
Invited Speaker: Royal Australian and New Zealand College of Psychiatrists Annual Meeting, Christchurch 2004.
Invited Speaker: Annual Australian and New Zealand Bipolar Disorder Scientific Meeting, Adelaide 2004.
Invited Speaker: International Meeting on Cannabis and Psychosis, Melbourne 2004
Invited Speaker: Australasian Society for Biological Psychiatry, Annual Meeting, 2001.
Oral Presentation: Australasian Society for Psychiatric Research, Annual Meeting, 2001
Awarded World Congress of Biological Psychiatry Fellowship Award 2001
8th International Congress on Schizophrenia Research Schizophrenia Research 2001
Invited Speaker: Australasian Schizophrenia Conference, 6th Bi-annual Conference, 2000
Collegium Internationale Neuro-Psychopharmacologicum, XXII Annual Congress, 2000. Poster Award.
Australian Neuroscience Society, Annual Meeting, 2000: Oral presentation.
University of Melbourne, Beattie-Smith Research Day, 2000: Oral presentation.
Royal Melbourne Hospital, Research Week, 2000: Oral presentation.
Mental Health Research Institute of Victoria, Research Day, 2000: Oral presentation.
Oral presentation: University of Melbourne, Department of Psychiatry, Research Day, 1999.
Biennial European Winter Workshop in Schizophrenia 1994: Poster.
Invited speaker: Mental Health Research Institute of Victoria, Schizophrenia Workshop, 1993.
Australian Neuroscience Society, Annual Meeting, Oral presentation 1993
Australian Neuroscience Society, Annual Meeting, Poster 1992
Australian Society for Psychiatric Research, Annual Meeting, Oral presentation 1992