Royal Commission into
Victoria's Mental Health System

WITNESS STATEMENT OF SHANE SOLOMON

I, Shane Solomon, Partner of Caligo Health, of 199 William Street Melbourne in the state of Victoria, say as follows:

Background

1 I am currently a partner at Caligo Health which offers specialised healthcare consulting services to government, private and not-for-profit organisations.

2 I am also Chair of the Independent Hospital Pricing Authority (**IHPA**), having been appointed its inaugural chair in 2011. The IHPA determines the price to be paid by the Commonwealth Government for public hospital services, including mental health services (inpatient and community).

3 My involvement with mental health started over 30 years ago as a consultant to the Commonwealth Government for the *National Mental Health Policy* (1992) and the *First National Mental Health Plan* (1993-1998). The First National Mental Health Plan was the first attempt to coordinate mental health care reform in Australia and advocated for major structural reform.

4 I have previously held the following roles:

(a) Between 1993 and 1996, I led a project for the Commonwealth Government to develop a new funding model classification for mental health, called MH-CASC. This project is the origin of the current outcome data collections required by all mental health services, including the HONOS, Life Skills Profile, and Focus of Care data.

(b) Between 1996 and 2000 I was the first Group Chief Executive Officer of the Sisters of Mercy health aged care services, which brought together separately governed and managed public and private hospitals and aged care services under the single governance of Mercy Health and Aged Care, and provided inpatient and community mental health services.

(c) Between 2000 and 2006 I worked in the Department of Health in the Department of Human Services, including as Undersecretary for Health where I was responsible for the funding of the Victorian public health service system,

Please note that the information presented in this witness statement responds to matters requested by the Royal Commission.

and performance of metropolitan health services. My role included responsibility for mental health services.

(d) Between 2006 and 2010, I was the Chief Executive of the Hong Kong Hospital Authority. In that role I was responsible for the management of the Hong Kong public hospital system (which included the provision of mental health services), comprising 26,000 beds and 57,000 staff.

(e) Between 2010 and 2013, I was the National Health Lead Partner at KPMG.

(f) In 2013, I founded and became the Managing Director of Telstra Health, an eHealth start-up within Telstra. Telstra Health provides software products, solutions and platforms to healthcare providers and funders in the hospital, health care, pharmacy and aged and disability care sectors.

(g) In 2017, I was part of a panel with Dr Alex Cockram and Professor Harvey Whitehead preparing the case for reform and better funding of the Victorian public mental health system (referred to as the Cockram Review).

5 My current consulting work includes working with the Victorian Department of Health and Human Services (**Department**) on a new funding model for mental health and multiple projects related to digital health. These included developing a national roadmap for interoperability between health IT systems (now endorsed by the Australian Health Ministers' Advisory Council (**AHMAC**)) and a major review of the South Australian Electronic Medical Record System (fully accepted by Cabinet and implemented).

6 My other Board roles are as Chair of the South Australian Electronic Medical Record (EMR) Program Board, a member of Digital Health SA, and non-executive director of Silver Chain Board (not-for-profit) and Virtus Health (ASX listed).

7 I have a Bachelor of Social Work and a Master of Arts in Public Policy. I am a Graduate of the Australian Institute of Company Directors (GAICD) and a Certified Health Informatician Australasia (**CHIA**).

8 Attached to this statement and marked 'SS-1 is a copy of my CV.

9 I am giving evidence to the Royal Commission in my personal capacity and not on behalf of any employer or organisation.

Five key problems in the mental health system

10 My evidence will focus mainly on the potential of digital health as an integral part of the future mental health system by assisting to solve some of the big challenges facing the mental health system. I am not suggesting that digital health is a panacea or fix-all, but

it is hard to imagine design of a future mental health system which does not draw on the advances in digital technology being experienced in the rest of society and the health system.

11 In defining the scope of digital health, I include electronic health records, systems that automate processes (like e-prescribing and scheduling systems), telehealth (video and phone), systems for delivering health services remotely, home and remote health monitoring applications, and online mental health programs (often self-guided).

12 In my view, whether we are considering digital health, financing or governance, we must, first, put much effort into articulating the problem that we are trying to solve and, only when this is clear, identify the right mechanisms to help solve the problem.

13 I see five key problems in Victoria's public mental health system, which are amenable to digital health solutions, which I discuss below.

The gap between the epidemiological need and the actual public mental health service delivery

14 The first problem is the gap between the number of people who, on epidemiological grounds, should receive care, and the gap in the number who are actually accessing the system. This is identified in the Royal Commission's Interim Report, which observes that there are 205,000 Victorians (3.1% of the population) who have a severe mental illness and need treatment, but only about 75,000 who receive treatment in Victoria's public mental health system.[1] This gap between need and supply was also highlighted by the recent Productivity Commission inquiry into mental health.[2]

15 The first problem is therefore: *how do you get more people treated or cared for in the system?* Of course, the obvious answer is 'spend more money', and I'm sure that is necessary. Digital health systems can assist in getting the best value out of the money we spend.

The level of service needed

16 The second problem is, once a person makes it into the public mental health system, how to provide a sufficient level of service to meet acceptable clinical standards. The evidence shows that once people are able to access the Victorian public mental health system, they do not receive an adequate level of care. The National Mental Health Service Planning Framework (**NMHSPF**), endorsed by AHMAC, identifies the mix and level of care of different types of consumers (care packages), depending on the severity

[1] State of Victoria Royal Commission into Victoria's Mental Health System, Interim Report, Parl Paper No.87 (2018-2019) p.178
[2] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra pp. 283-285

of their illness. For those with the most severe needs (estimated at 27,500 in Victoria in 2017), the NMHSPF proposes a national standard of care of 7.5 hours per month, based on available evidence and clinical input.[3] Based on the work of a new funding model for mental health services in Victoria, I am convinced that this level of care is not being provided to many people with severe mental illness. I urge the Royal Commission to examine whether the current level of hours of care is consistent with the national standard.

17 In my view, mental health consumers with severe mental illness are receiving a grossly inadequate level of care. This acceptance of sub-optimal levels of care can be highlighted against the approach of the rest of the health system. To illustrate this, compare this with a person who has cancer and the evidence says that person needs 12 courses of chemotherapy. But what if the system can only afford to give you 4 courses, so we will just give you the 4, is that okay? In my experience, that is mental health. People do whatever they can with what they've got, knowing it is sub-optimal and unlikely to lead to acceptable recovery outcomes.

18 Beyond extra resources, I believe digital health can assist in the better use of resources to increase the level of care closer to acceptable mental health professional standards.

Lack of data on the most effective interventions

19 The third problem is the lack of data about what interventions are most effective. Unlike chemotherapy, for example, where there is data as to its effectiveness, there is a lack of health services research into what works in mental health. While there is a significant body of research around particular diagnoses and the impact of pharmaceuticals and different individual therapies, the evidence on what type of service model and level of intervention works is scant.

20 While we have the NMHSPF as a national standard, there is little ongoing research into the impact of differing outcomes from different interventions, for a similar consumer type. This is a function of available data, both in describing differential consumer types (a classification system) and in monitoring what specific services they receive. In the wider health system there are intervention codes recorded (eg surgery), while in mental health only basic contact data is recorded (eg a phone call).

21 Changes to what and how data is collected is a prerequisite for researchers to undertake these types of service effectiveness studies. The effectiveness of the

[3] The University of Queensland. 2016. The National Mental Health Service Planning Framework – Care Profiles – Commissioned by the Australian Government Department of Health. The University of Queensland, Brisbane. Pp 80-84.

Commission's proposed Collaborative Centre for Mental Health and Wellbeing will depend on getting access to this type of data.[4]

Coordination of care

22 The fourth problem is the need to coordinate care between the numerous people involved in responding to the needs of someone with a mental illness. This includes coordination across health services (emergency departments, acute inpatient care, community etc), and amongst wider support services (for example disability support services) and with family and friends.

23 If a patient attends two or three emergency departments, other services will not know that. Therefore, a person might be in a stage of severe deterioration, and this may go unnoticed by the specialised mental health workers who should respond to it before it leads to hospitalisation or harm to self or others.

24 This situation arises from differing and disconnected data systems operating across Victoria's health services. Hospitals have different electronic medical record systems, and some do not yet have a system. They are mostly separate from the data recording system used in Victoria's mental health services, which are mostly for central administrative purposes rather than clinical information. These are, in turn, not available to those outside the health system who also have important roles in supporting consumers. Each has a piece of the information about the consumer, but no one is able to see what the others are doing in real time.

25 Coordination of care requires an interoperable mental health care record which assists frontline workers do their work efficiently as well as see who else is involved in a consumer's care, and what has been done.

26 The solution is discussed further below, but it is not a separate clinical system from the existing systems. Rather, the model should draw information out of the many existing systems as well as being the system where different mental health workers can enter data not held in other existing systems. The model would combine the attributes of an electronic health record which has functionality (like prescribing and referrals) and a CRM (Client Relationship Management) system which is widely used in all parts of the general economy.

Staff productivity

27 In my view, the fifth problem is staff productivity and morale. The Productivity Commission report highlighted this issue nationally:

[4] State of Victoria Royal Commission into Victoria's Mental Health System, Interim Report, Parl Paper No.87 (2018-2019) p.404-412

> *"The Commission estimated that, across Australia, only 29% of staff time at community mental health services was spent on consumer-related activities (with or without the consumer present). This falls well short of an agreed national benchmark (that 67% of staff time in community mental health services be related to consumers)."*[5]

28 There is a very high funding per hour for community mental health services of $408.62 per hour of contact, mostly by a community mental health nurse.[6] This compares with a GP's average billing of around $145 per hour.[7]

29 This is likely to be a result of inadequacies in data collection (e.g. undercounting the true hours of care) and also not using systems that maximise use of clinical time (e.g. scheduling and reducing no-shows).

30 Staff morale is affected if they lack the systems for them to focus on achieving the types of consumer outcomes that they are trained to deliver as professionals. Time spent on administration and providing data of limited value is de-motivating.

The role of digital health in solving the problems

31 I want to focus on a few of the most relevant digital health areas that have the potential to impact on the future outcomes of mental health services:

(a) A shared electronic health record.

(b) The use of telehealth, including video consultations and health monitoring.

(c) Online treatment applications.

(d) Date repositories for research, evaluation, and monitoring.

32 In my view, the use of technologies or digital health will not replace face-to-face services, but have an important role in supporting and supplementing physical contact.

Shared electronic care record

33 Electronic Medical Records (**EMRs**) are now commonplace in hospitals around the world, with Victoria progressively implementing EMRs across its hospitals. Victoria does not have a single EMR system used in all hospitals, preferring to leave hospitals to choose their own. The dominant EMRs in Victoria are the major US systems: Cerner

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[5] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra p. 47

[6] https://www.dhhs.vic.gov.au/policy-and-funding-guidelines-2019-20-appendices-funding-rulesp.p.6

[7] http://www.gp.org.au/economics.html

and Epic. There are a set of standards that each of these systems must meet which enables them to interoperate if required in the future.

34 In most cases the EMR covers only the services delivered in the hospital, including inpatient, emergency departments, and outpatients. Each of these EMRs includes data on mental health services and patients. In some Victorian health services, the EMR also covers community mental health services (e.g. the Cerner system at Alfred Health).

35 Most community mental health services do not have a specific community mental health clinical record system which has similar functionality of a hospital EMR, such as the capacity to input structured notes and standardised templates, prescribe medication, make a referral to another care worker, or schedule an appointment.

36 The major mental health IT system in Victoria is the Client Management Interface (**CMI**) system which is used by all public mental health services to record data, with the data items specified by the Department. An extract is sent to the Department to create the Operational Data Store (**ODS**). The system is more of an administrative data set than an electronic health record – that is, it is designed for system monitoring rather than for frontline staff to manage their case workload. To illustrate this, in most cases, key data items like the HONOS measure is written on a form by mental health workers, and then entered into the CMI by an administrative staff member. The data is then transferred to the Department but is generally not used for a person's clinical management.

37 The value of a shared care record arises from the multiple needs of people with mental illness over an extended period of time. These needs change as the phase of the illness changes, from acute to intensive to more stable continuing care. Put simply, care co-ordination is central to responding to the needs of a person with a severe mental illness, and to do this, it is essential that each of the many parties involved know what the other is doing and know the mental health state of the person. Currently, there is no way of doing that, because the various services cannot efficiently share with each other what treatment or care they are providing the person.

38 The care team routinely includes those working in public hospitals and community mental health services, Prevention and Recovery Centres (**PARCs**) and sub-acute services, GPs, private psychiatrists and psychologist, disability support workers, and carers.

39 At a minimum, hospitals should know whether a person with a deteriorating mental illness has been recently admitted to another hospital – currently the IT systems do not allow that to be known. It is possible for a person to attend multiple times at different hospital emergency departments, and for each not to know.

40 The next priority is for hospitals and public community mental health services to have a shared view of the person they are caring for. This would mean a single mental health care record containing the clinical information from across all public mental health services. Because consumers are mobile and move between services, this would need to be a single state-wide mental health care record that connects existing hospital systems, regardless of which EMR is being used.

41 Once there is a shared care record within the public mental health service, this could be extended to others involved in a consumer's care. Increasingly, the private sector and public sectors should work collaboratively on shared care arrangements. About 99,000 Victorians are treated by private psychiatrists per year, with a further 466,000 by general practitioners (GPs) for mental health problems, and 109,000 by private clinical psychologists.[8] For example, one of the issues people have raised with me – I have not seen the data – is that when people are discharged from the public mental health service there is a high readmission rate. The challenge is how to prevent that readmission. If the person is cared for in the private sector (GP, private psychiatrist, psychologist) you could retain a public mental health psychiatrist or a senior nurse in a case manager role, so there is a true shared-care arrangement. A model like that could only work effectively if there was a shared care record.

42 A further stage is to include those in the non-health care system who have regular contact with a consumer and can observe changes in the mental health of a person. For example, a disability support worker may be the first to identify whether a person's mental state is deteriorating, particularly if they are not attending regular appointments with the specialist mental health system.

43 Access to such a shared record for the person themselves and other family and friends should be considered.

44 Shared care records require a degree of standardisation between services; for example, in how diagnosis is recorded or how an intake assessment is done. Last year I visited a community public mental health service and was shown over 30 different forms that they used in a person's ongoing care – many of these involved recording duplicated information, and often they were required for administrative reporting purposes rather than care of their clients. Creating a shared care record is an opportunity to rationalise these data collection requirements so that their primary purpose is for the client, with the reporting and administrative data being a by-product of what is needed to care for the person. This standardisation is then translated into smart forms which save staff time by pre-populating data items and generally reducing the time needed to record data.

45 In summary, the value of a mental health shared care record includes:

[8] AIHW Mental Health Services in Australia, 2016 Table MBS.3.

(a) capability to quickly identify those with escalating risks;

(b) making each person involved in a person's care more effective if they know what the other people involved are doing, including avoiding duplication and identifying gaps in a consumer's care plan;

(c) clients not having to repeat their story constantly to different people;

(d) reducing the amount of repeat data entry, and so free up more client facing time; and

(e) improved standardisation and rationalisation of what needs to be collected by frontline staff.

46 Creating a fit-for-purpose shared health record for mental health is challenging and will need to be owned and led by those in the mental health frontline, and not be seen as "an IT project". Its design needs to achieve clearly articulated outcomes defined through a process of engagement with the mental health and related communities. Design features are likely to include:

(a) Making the work of the frontline mental health worker easier; for example, by not having to repeat data entry and by providing structured clinical notes (e.g. for undertaking an assessment).

(b) Presenting simple information that all involved need to know, with a capacity for each person in the care team to enter notes and be contacted.

(c) The ability to automate processes, like prescribing, referrals, and appointment scheduling.

(d) Providing strict access controls set by the consumer – some members of the care team may have access to more information than others.

(e) Allowing for interoperability with existing systems, so as to avoid gaps and data entry duplication (particularly so it connects with hospital EMR systems and GP patient management system).

(f) Being web-based to fit the needs of a mobile workforce.

47 There are many shared information systems in the wider health system and commercial world, and the technology to achieve this has become commonplace through the use of application programming interfaces (**APIs**)[9] and health-specific messaging standards

[9] An API is a tool that gives one IT system permission to 'dive into' another technological system and collect pieces of information to put into the first system. In healthcare, the API that was used HL7, but now

like FHIR. The technical details of these are not important here – the important thing is that the technology will not be a barrier to the creation of such a shared care record.

48 The biggest risk is that such an initiative is not led and controlled by the mental health community, and that there is no agreement on the standardised content and structure. The initial design process is critical.

Telehealth

49 The second major digital health opportunity is in telehealth. The future design of mental health services needs to consider the role that the internet, mobile devices and mental health mHealth apps can play in monitoring and treating people's mental health. Approximately 97% of Australians have a smart phone and one in four Australians are using mobile phones to monitor their health.[10]

50 However, there are still significant issues with the digital divide which is likely to impact disproportionately on people using public mental health services. The 2019 study *Measuring Australia's Digital Divide* found that "there is a substantial digital divide between richer and poorer Australians. In 2019 people in Q5 low-income households have a digital inclusion score of 43.3, which is 30.5 points lower than those in Q1 households (73.8)",[11] with similar low digital inclusion for those who are unemployed or have a disability. Consequently, the potential to take advantage of telehealth and related mobile apps is likely to require some investment in improving access to digital health resources for consumers of mental health services.

51 Of most relevance in relation to telehealth is the use of video platforms designed for conducting health care consultations and some mobile monitoring apps.

52 At a rudimentary level, telehealth is widely used in mental health services. Around half of the service contacts in Victoria's adult mental health services are by telephone, totalling 766,000 in 2015.[12]

53 The potential to move to video telehealth consultations is recognised by the Royal Australian and New Zealand College of Psychiatrists:

> *"Telehealth can greatly improve access to psychiatric services...A number of studies have demonstrated that telehealth can be as effective as face-to-face consultations in achieving improved health outcomes".*[13]

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an API called FHIR is the emerging accepted standard (including by Apple). It was developed here in Australia.

[10] Deloitte *Mobile Consumer Survey 2019. The Australian Cut p.1,15*

[11] Thomas, J, Barraket, J, Wilson, CK, Rennie, E, Ewing, S, MacDonald, T, 2019, Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2019, RMIT University and Swinburne University of Technology,Melbourne, for Telstra. Pp 5-6

[12] Department of Health and Human Services mental health service planning data

54 The benefits of video telehealth above telephone contract are that important visual cues about a person's mental health can be identified, and a video consult is more engaging for the consumer. For the consumer, video telehealth is also more convenient (including saving on travel costs) and less stigmatising than face-to-face contact. Productivity is improved for the mental health worker through reducing missed appointments and less travel time.

55 Funding for telehealth has already been available in some circumstances, including for public hospital services and through Medicare for rural and remote patients.

56 Recently, the Commonwealth Government has significantly extended Medicare item numbers for telehealth in response to the COVID-19 pandemic, in particular for GPs and other mental health services. While the Commonwealth Government has stated that this is temporary, it is highly likely that telehealth will increasingly be part of the mainstream health landscape. The impact of this on people's expectations about how they access health services is likely to be significant. In the same way that we now expect to be able to bank online (and on our smart phones), people will expect to see a GP through telehealth. As this wider community behaviour changes, mental health services need to be in a position to offer telehealth as normal practice.

57 User friendly health specific video platforms have emerged, with the Commonwealth Government funding free access to the Healthdirect video platform for all GPs. Such video platforms can be used on mobile phones and involve simple URL addresses rather than downloading any special software. The video quality has improved significantly and they mostly have a waiting room functionality that mirrors the workflow in face-to-face practices. The purpose-built health platforms also address the privacy and security platforms of general commercial products like Skype or Zoom.

58 The adoption of telehealth in mental health is growing rapidly in other countries, with funders now routinely reimbursing what is increasingly called 'telementalhealth'. For example, a recent US study found a compound annual growth rate of 50% in the use of telemedicine in mental health between 2005 and 2017.[14]

59 It seems sensible to accept this trend as inevitable, embrace it, and do it properly by migrating as much as possible from telephone contacts to video consults using the specialised health platforms now becoming available at low cost.

60 Alongside the trend towards video telehealth services, mobile apps are increasingly being used for monitoring health. These include exercise trackers, blood pressure and heart rate, and could be more extensively used for people with a mental illness. There is

[13] https://www.ranzcp.org/practice-education/telehealth-in-psychiatry
[14] https://ps.psychiatryonline.org/doi/10.1176/appi.ps.201900555

strong evidence that people with mental illness also have significant physical health problems.

61 In addition, mHealth apps have been used to monitor the mental health of people, which is important in identifying when someone's mental state is declining and there is need for prompt intervention. These often involve 'passive monitoring' which identifies changes in people's activity and social interactions. A meta review recently concluded that "results are promising but…larger trials are needed".[15] Examples include eMoods and Worry Time which require the user to give daily short answers to how they are feeling,[16] and HealthRhythms which passively monitors speech patterns, sleep and use of the device for interacting socially.[17]

62 We can expect increasing innovation in this space, and some initial trialling of these technologies should be considered for some groups. The benefit is that it will help target limited resources more accurately to those whose mental health is deteriorating to a point where they may be at risk of hospitalisation or worse.

Online mental health programs

63 The third area of digital health is online mental health treatment services.

64 There are various innovations in this field, and Australia is world leading. I am currently chairing a panel commissioned by AHMAC and the Australian Digital Health Agency to examine how mHealth apps can be assessed nationally for effectiveness and safety, and so encourage their use. The Australian Commission on Safety and Quality in Health Care has been commissioned by the Commonwealth Department of Health to develop standards for online mental health services.[18] These initiatives reflect the growing recognition of the place of online mental health services in the future design of mental health services.

65 The potential is examined thoroughly by the Productivity Commission. The advantages cited include overcoming stigma of accessing face-to-face services, reducing geographic access barriers, and providing a low-cost treatment option.[19] It points to "a large and growing body of evidence showing that online mental health treatment is an effective intervention for certain disorders and for a range of groups".[20] A meta study of nine reviews by Professor Gavin Andrews et.al. concluded that "supported online treatment was as effective as face-to-face cognitive behavioural therapies (**CBT**)...it

[15] https://journalbipolardisorders.springeropen.com/articles/10.1186/s40345-019-0164-x
[16] https://medium.com/invisible-illness/3-apps-to-help-you-monitor-your-mental-health-228e2bc88511
[17] https://fellowsblog.ted.com/how-we-can-use-smartphones-to-diagnose-and-treat-depression-adc4cf9ede8a
[18] www.safetyandquality.gov.au/dmhs
[19] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra p.252-260
[20] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra p.261

carries additional benefits such as fidelity of treatment" through standardisation of treatment.[21]

66 A 2018 meta analysis of 14 international studies found that internet delivered therapies had a "medium effect on reducing depressive symptoms….and a large sustained effect in maintaining reduction of depressive symptoms in follow-up measures done 3-6 months after the conclusion of the study" and that "it may be a good treatment modality for individuals unable or unwilling to access traditional face-to-face therapy.[22]

67 It is noteworthy that many internet programs have been created in Australia by highly credible mental health service organisations. These are summarised by the Productivity Commission in the table below.[23]

Table 6.1 **Selected online mental health treatment programs**

Program	*Developer*	*Mental ill-health*	*Type*	*Population*	*Therapy*	*Cost*	*No. courses*	*Course length*
Mental Health Online	Swinburne University	anxiety, depression	supported self-guided	adults	CBT	free	7	12 weeks
MindSpot	Macquarie University	stress, anxiety, worry, low mood, depression, PSTD, obsessive behaviour	supported	adults, Indigenous, young adults older people	CBT	free	7	8 weeks
THIS WAY UP	St Vincent Hospital	depression, anxiety	supported self-guided	adults[a]	CBT	$35-59 free	18	13 weeks
Brave	b	anxiety	supported self-guided	3-7, 8-12, 12-17 year olds (with parent involvement)	CBT	free	4	10 weeks (based on one session per week)
Cool Kids Chilled Out	Macquarie University	anxiety	supported	3-6, 7-12, 13-17 year olds	CBT	$710	2	n.a
MyCompass	Black Dog	stress, anxiety, depression	self-guided	Adults	CBT, problem solving therapy, interpersonal psychotherapy & positive psychology	free	14	n.a
BITE BACK	Black Dog	wellbeing	self-guided	13-16 years old	positive psychology	free	1	6 weeks
HeadGear	Black Dog	common mental disorders	self-guided	Employees male dominated industries	behavioural activation & mindfulness	free	1	n.a
MoodGym	ANU	depression, anxiety	self-guided	15-25 year olds	CBT	free	1	n.a
e-couch	ANU	depression, anxiety, relationship breakdown, and loss & grief	self-guided	adults and youth	CBT, interpersonal therapies, relaxation & physical activity	free	1	n.a

[a] one program available for teenagers. [b] University of Queensland, Griffith University, the University of Southern Queensland, Griffith University and UniQuest. **n.a** not applicable as the online treatment is self-guided.

68 In my work on a new funding model for mental health services in Victoria, clinical staff have highlighted that the level of service currently provided is very light on therapies, such as CBT. The NMHSPF sets a standard of eight sessions of "Structured Psychological Therapies (SPT) per year.[24] Without proper data systems that record interventions (see above), it is not possible to know whether that standard is being met. Anecdotally, it is highly unlikely.

69 The potential to use online mental health treatment programs to fill this gap for some population groups warrants further examination. Most of these online programs are CBT

[21] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra p.261
[22] https://www.ncbi.nlm.nih.gov/pubmed/28696153
[23] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra p.248
[24] The University of Queensland. 2016. The National Mental Health Service Planning Framework – Care Profiles – Commissioned by the Australian Government Department of Health. The University of Queensland, Brisbane. pp 79-81

programs, operated by highly reputable organisations, and have solid evaluations of effectiveness.

70 However, it should be noted that these programs are often best suited to the moderate to high prevalence group which mostly will not get access to the Victorian mental health service. Beyond this group, the Productivity Commission points to evidence that some specific groups can benefit from online treatment services, including perinatal women, children and adolescents, Aboriginal and Torres Strait Islander people, and older people.[25]

71 Mainstream apps are also relevant to mental health; for example apps that provide reminders about appointments. Such systems are used routinely in most other areas of health care, such as for GP appointments. This could reduce some of the patient no-shows and so increase the productivity of mental health staff.

Single mental health data repository

72 In my view, there is a need for a single mental health data repository to be established which is made available to researchers to identify what type and level of intervention is most effective for different types of consumers. As mentioned above, the Royal Commission's proposal for a Collaborative Centre for Mental Health and Wellbeing will only be effective if it can access the data it needs.

73 A major review of the current CMS is essential to identify the data items of most importance for future research. The CMS is a large and longitudinal data set but is based on an old-world view of specific programs and services, rather than describing types of interventions and consumers. Many data items need re-examining. For example, if two mental health workers travel to someone's house for a one-hour visit, and it takes two hours travel, then this is counted in the CMS as one hour of client contact – at a minimum it should be two, and should also recognise the travel time involved. This is just one of many examples that have come to light in creating the new mental health funding model for Victoria. The CMS/ODS needs a 'root and branch' review to clean out data items that are never used and include new data items that are critical to designing the future mental health system for the state.

74 The shared responsibility for mental health between the Commonwealth and state/territory governments means that there is duplication, overlap, and, more positively, shared care potential for individual consumers. The proposed data repository needs to incorporate use of services in the Commonwealth's responsibility, particularly through Medicare (GPs, psychiatrists, psychologists).

[25] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra p.265

75 In my view, the reason mental health struggles for funding is not that people don't know people with a mental illness – we all do – and it is not that people think mental illness is bad; it is that people don't believe the interventions work. They don't believe that they make a difference, whereas people do believe that if you have a coronary artery bypass that medical intervention would make a difference. The difference is that the views held in relation to bypasses are strongly evidence based.

76 There is limited equivalent convincing and widely accepted evidence base in mental health. Victoria has a lot of data, but it does not translate across into knowledge that drives service models.

77 Two important data set gaps need to be filled. The first is the development of intervention codes similar to in the hospital data collections. Models have been developed internationally that could be adapted here. The importance of these is knowing what is done to the consumer, not just how many hours of care they received.

78 The second is a patient classification system so that interventions and outcomes can be matched for homogeneous service user groups. The latter is well advanced through the classification work in the Department's mental health funding reform project. If there is evidence of what works for each group in the classification, then funding can be aligned to outcome and effectiveness. Currently, it is based on inputs and average costs.

Summary – connecting the 5 key problem areas to the potential of digital health

79 To summarise, harnessing digital health can contribute to addressing the five key problems I identified in the following ways:

(a) A shared care record can help reduce the gap between those who need care and cannot get it, and also increase the level of care they receive to better align with the national mental health service planning standards. This can be achieved by freeing clinical staff time to focus on clinical work, in particular by lightening the administration burden (including rationalisation and standardisation of data collection) and reducing the time clinical staff spend tracking down people involved in a person's care and assembling information from various sources, such as after a hospital admission. It will also allow clinical staff to identify when a patient is deteriorating and so better target the clinical time to the highest needs.

(b) Video telehealth consults have the potential to reduce 'no shows' and so increase the number of people a worker can see. It will reduce clinical staff travel time, while still allowing them to gain a much clearer understanding of the person's health by being able to observe and connect better. When combined with digital appointment reminders and prompts, mental health services will be

able to take advantage of activity-based funding systems (Commonwealth and State), and therefore, increase resources available to care for more people.

(c) Digital health technologies have the potential to reduce avoidable hospitalisation, and so increase the resources available to care for more people in the community. This can be achieved through the shared care record that improves care coordination and enables early identification of those at risk of deterioration and hospitalisation. Mobile monitoring systems and video consultations can also improve the care in the community, and so reduce hospitalisation.

(d) Online mental health programs have the potential to fill the gap in behavioural therapies recommended by the national mental health service planning standards, but not now routinely available in Victoria's public mental health system.

(e) Creating a single and revamped mental health data repository will advance the research and evaluation work necessary to build the evidence-based about what interventions are the most effective, and so improve targeting of extra funds.

Digital health implementation challenges

80 The most common mistake in digital health is to jump straight to a technology answer, without working with frontline users to define their needs and what would help them do their job better. The second most common mistake is to exclude the users from the design and configuration of the chosen digital health solution. In my experience of multiple digital health successes and failures, the frontline workers need to be integrally and continuously involved in the design of the product by telling the vendor what they need, what will be user-friendly, what will make their job easier and what will reflect the mobile nature of their work. This engagement process is critical.

81 The consistent theme of IT failures is they become IT projects rather than projects led and driven by the needs of the business or service. It has to be a business led system where services are involved in collaborating to create a product that is fit for purpose. The key is to ensure digital health meets the needs of clinical staff.

82 The digital health program proposed will impact and engage with those with lived experience of mental health problems. So it is essential that they are also involved in the design, selection, configuration, and implementation of each digital health initiative.

83 A detailed up-front exploration and design period is needed to define the functional requirements of any system – akin to an architect for a building. This would answer two key questions:

(a) What do frontline workers need to make their job easier and achieve better for consumers?

(b) What is the architectural model that will allow us to have a shared care record across the entities, and which gives us that flexibility to use the best components from existing and new digital health innovations?

84 In my experience, this process forces people to identify what is important in their processes. It's about asking '*Why are you collecting this piece of information*?' And sometimes the answer is '*Well, we have collected it for the last 20 years*'. And it's about asking – but why? Often, there is little benefit from the time spent collecting this information. Therefore, it is about challenging what the service is collecting, and why they are collecting it.

85 This design process needs to determine the priorities for implementation of such a digital health agenda. In my view, some progress should be made on all of these five digital health areas, but each should be staged. For example, the shared care record could start with linking the information held currently between hospitals, and then automate the collections in community mental health services, and link this to hospitals.

86 To implement the digital health program I am proposing, a dedicated digital transformation team would need to be established, with strong presence of frontline staff, consumers, and clinical informaticians, working within the mental health structure (assisted by the mainstream IT group, but not led by it). The skills required, beyond understanding of digital health and mental health, will be in change management. One thing that we may find is that every health service in Victoria will have its own workflow, and so there will be a change process required to normalise the workflow when it is digitised.

87 The architectural strategy will also be a critical implementation issue. Vendors have a strong interest in pushing towards using their solution as the single system that can do everything the user needs. Unfortunately, this carries considerable risks, including high cost and 'vendor capture'. In mental health it is not desirable to create a single standalone system that replaces all existing data collections, such as hospital EMRs. Because consumers intersect with multiple systems – hospitals, GPs, disability support, etc – then any digital solution must be able to interoperate with their IT systems.

88 Such a model would extract data from multiple sources to provide a single shared view of the consumer. It will have its own functionality, such as entering data in standardised

smart forms and allowing referral to others in the care team. But the aim would be to establish a highly interoperable system that connects all those involved in a person's care through a single view of the consumer.

89 Fortunately, technology has advanced considerably and digital architectures that are interoperable are now well established across most industries. These use efficient data exchange platforms, such as APIs, an Enterprise Service Bus, and dedicated health messaging systems that allow secure exchange of data between health services (e.g. HL7, FHIR).

90 Use of the national Individual Health Identifier (IHI) will be important for creating such a shared care record. This has been accepted in principle at the AHMAC level. Mental health in Victoria has its own single identifier, but this is different to that used in public hospitals.

Governance of the mental health system

91 The global movement over a number of decades has been towards reducing the isolation and separation of mental health services from the mainstream society and health system. This is driven by a number of factors:

(a) recognition that clients move in and out of hospital as their condition changes ('acute on chronic') and so integrated governance through area mental health services is a means of achieving continuity of care for clients;

(b) the need to reduce the stigma of having a mental illness;

(c) applying the same quality standards and funding to mental health as with other parts of the health system (particularly acute hospitals); and

(d) ensuring clinical staff (particularly psychiatrists) are focussed on the whole mental health service, and not just the inpatient component.

92 Alongside this policy direction of 'mainstreaming', Australia has also pursued a policy of 'integration' since the First National Mental Health Plan. They are often confused and treated interchangeably, but they are almost opposite and competing ways of organising mental health services. Mainstreaming is about ensuring mental health services are not separated from the mainstream health system.

93 Conversely, integration is about keeping the parts of the mental health system structurally connected with each other. The importance of complementing 'mainstreaming' with 'integration' is that consumers of mental health services have multiple needs that cross different parts of the health system, particularly acute hospital,

sub-acute services, and community mental health services. These parts need to work together to respond to the changing needs of individual consumers, particularly as they move from being acutely unwell to stable and needing a lower level of care. If mainstreaming alone was pursued, then the risk is that the mental health system would become fragmented, and it would make transitions from different parts of the mainstream health system much more difficult.

94 Whether it is time for a different model is always a matter for review and debate. But it is important to understand why the current twin design principles of mainstreaming and integration exist. There needs to be strong policy reasons to change this model.

95 In my view, the most effective health services are the ones where you devolve accountability and authority to the lowest competent level (the principle of "subsidiarity"). This frees the service to respond to the needs of their communities and to innovate. With this comes clear accountability for achieving what the community expects of a service. Victoria has opted to make the devolved model work through strong Boards, with accountability to Government through the annual Statement of Priorities, and various step in authorities if a service is not meeting the requirements of the Statement of Priorities. The system arose from a major governance review during my time in the Department of Human Services as Undersecretary for Health.

96 I believe this has served Victoria well, and is now followed by all other Australian jurisdictions and embedded in the National Health Reform Agreement. It also partly explains why Victoria's activity-based funding (**ABF**) cost is below every other state/territory.[26] To continue with the policy of mainstreaming mental health services, any change to the structural design of mental health services would need to be done in this context of the wider Victorian health governance model.

97 But in my view, there are weaknesses in the current structural design which need to be addressed. First, my observation is that there is much greater involvement of the Mental Health Branch in the operations of mental health services than for other services, such as hospitals. In my experience, services feel like there's a crush of bureaucracy sitting on top of them, limiting their freedom to innovate because they feel they need permission all the time from the Branch.

98 Second, for many years there was limited growth funding to mental health (this has changed in the last few years). Previously, I have been shocked to find that there were years in which mental health received zero growth funding, not even for extra demand from population growth. This reflects the relative lack of status of the Mental Health Branch within the Department.

[26]https://www.ihpa.gov.au/publications/national-hospital-cost-data-collection-report-public-sector-round-22-financial-year

99 Third, when there has been growth funding, it has not been quarantined at the health service level, with some evidence that funding is taken from community mental health services to support hospital inpatient budgets (within mental health, and for the hospital generally). I am unable to verify this, which may also reflect a lack of transparency. As part of the mental health funding review, I have heard many frontline area mental health service staff expressing concern about the failure to quarantine growth funds to mental health.

100 To address these issues, I propose consideration of two structural reforms:

101 First, lift up the position and authority of the Mental Health Branch so that it has a stronger presence at the decision-making table and can attract leaders of sufficient seniority. Ultimately, reform on mental health will depend on the quality of the people tasked with implementing it. I cannot see the current structure being able to attract the right skilled change leaders or having the autonomy necessary to push through major reform.

102 Other jurisdictions have experimented with separate Mental Health Commissions, but my observation is that they have had limited success – either they have not held the budget and so have limited levers to implement reform, or they have been distanced from the budget bidding process. While appearing to give higher status to mental health, the effect of these separate structures has been to marginalise and sideline mental health from the mainstream power of the general health system.

103 If there is to be a separate state-wide structure, it would need to be of a limited term and have the budget and mandate from the outset to pursue major reform with a high degree of freedom.

104 Second, to address the issue of quarantining mental health growth funds at the health service level, a new structure could be considered that sits inside the existing health services structure. While a higher level of transparency would be a partial solution, it is unlikely to be sufficient as it has the risk of micro-managing rather than devolving authority.

105 A more radical approach is to create a 'subsidiary' of the Metropolitan Health Service with responsibility for mental health, including a Board which would provide both expertise and some assurance that funds allocated to mental health are spent on mental health. The Area Mental Health Subsidiary Board would bring expertise, protection of funds and advocacy. Such a model is not unusual in the commercial world – note for example Telstra; Qantas and Jetstar; Medibank and ahm health insurance. Accountability remains to the parent Board, but there is a degree of delegated authority and autonomy for the subsidiary Board to build up the strength of the integrated area

mental health service. This would also create the opportunity to include people on the Mental Health Subsidiary Board who represent private mental health services funded by the Commonwealth and so achieve the more integrated mental health planning envisaged by the Productivity Commission.[27]

106 In my experience, the advantage of such models is that it gives people the freedom to develop and evolve, and an authority to run their show. That also means good quality people as leaders are attracted because they value that autonomy and authority to pursue outcomes.

107 This is a model for structuring a governance arrangement that protects the mental health budget without disintegrating mental health service and keeping it within the mainstream health service.

Funding

108 Given my role as Chair of the IHPA and my role as a consultant to DHHS, I will only offer general comments about the importance of funding.

109 Funding is a tool to achieve a service outcome. The number one issue is keeping pace with acute hospital funding, and that has fallen behind, and that is partly because mental health has not had ABF for community mental health services. ABF, at its most basic level, recognises that as the population grows, so does the level of health service activity, and so the funding should follow this.

110 It is important to match funding to the need for, and the complexity of, the services provided. The fact a service is paid the same hourly rate regardless of who they care for (a complex, difficult case or an easy, stable case), or the number of people they treat, does not make sense to me. Funding is a key incentive driver to improve productivity and to reward people for doing more, and that does not occur at the moment. There is a need for greater transparency to see what the government is getting for its investment.

111 There is also a need to get funding based on what is good care. The mental health sector has a unique opportunity to move towards funding outcomes, rather than only activity. This would require two preconditions. First, implementation of the mental health classification model being developed at the national and Victorian level, so that consumers can be classified according to their needs. Second, a major increase in research and evaluation into what level and type of intervention is most likely to lead to the best outcome for the different consumer types in the classification.

[27] Productivity Commission 2019, *Mental Health*, Draft Report, Canberra p.265 Pp. 197-199

112 The unique opportunity arises because the proposed consumer classifications use outcome measures (HONOS) and these are routinely and universally collected. Changes in outcomes can therefore be measured and correlated with the type and level of service provided. Data collections are also now being introduced into Victoria that measure the lived experience of consumers and carers, which could also be incorporated into a funding model.

113 With this data, the funding system can then be calibrated to fund at the level that is best able to achieve a cost-effective outcome for different types of consumers. The rest of general health can only aspire to that at the moment because the outcome measures are not routinely collected.

114 I believe that improvement in the mental health system require new models and structural reform. Embracing the potential of digital health is key to future models and innovation, while reforms to the organisation and funding of mental health will make reforms sustainable and responsive to the needs of consumers.

sign here ►

print name Shane Solomon

date 22 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 Shane Solomon dated 22 May 2020.

Shane Solomon – Resume (March, 2020)

After 30 years as a senior health executive, Shane Solomon has various non-executive and advisory roles. Shane has a reputation for reform and innovation of major health systems.

He was appointed by the Prime Minister and all Premiers as the inaugural Chair of the Independent Hospital Pricing Authority in 2011, a Commonwealth Government authority which determine eligibility, funding approach, and pricing levels for the Commonwealth Government's annual allocation of $17+ billion annual public hospitals across Australia. Shane was reappointed as Chair for a further five years. Shane is also a member of the Silver Chain Board (large innovative home health organisation) Virtus Health (ASX listed, IVF company). He chairs the South Australian Electronic Medical Record Implementation Board and is a member of the Digital Health South Australia Board.

Over the last year, Shane has conducted various Government reviews, including the structure and operations of AHMAC (Australian Health Ministers' Advisory Council; Victorian public mental health services; the Nationally Funded Centres Program; the electronic medical record system in South Australia (EPAS), and interoperability program and mHealth Review for the Australian Digital Health Agency.

His most recent executive experience was founder and Managing Director of Telstra Health, an eHealth start-up within Telstra (2013 to 2017). Through acquisition and organic growth, the business grew from nothing to over 800 employees in four years, operating across Australia, Asia, UK, and Europe. It assembled a combination of leading health IT applications and telehealth capabilities.

Prior to this, Shane was National Health Lead Partner at KPMG Australia (2010-2013), where he led major strategic reviews across all Australian health jurisdictions and many major private sector health organisations.

Shane was appointed as the first non-doctor, non-Chinese speaking Chief Executive of the Hong Kong Hospital Authority (2006-2010). In this role, he was responsible for the management of the Hong Kong public hospital system, comprising 26,000 beds and 57,000 staff. The Hospital Authority delivered 93% of Hong Kong's hospital beds, 60% of specialist medical services, the publicly subsidised pharmacy scheme, and 25% of the general practitioner market. He achieved reform across funding, clinical IT systems, and governance.

Before moving to Hong Kong, Shane held senior health executive positions in Australia. He was Under Secretary for Health in the Department of Human Services (2000-2006). He was responsible for the major reform of the governance of Victorian public hospitals, a model that has now been adopted by all the major states in Australia. His achievements included the financial turnaround of the Victorian public hospital system, which is now the most efficient in Australia, along with introducing innovations to reduce hospital demand, building sub-acute and mental health services, and funding health IT systems to public hospitals and community health services.

Shane's firsts CE role was as the first Group Chief Executive Officer of the Sisters of Mercy health aged care services in Victoria, bringing together separately governed and managed public and private hospitals and aged care services under the single governance of Mercy Health and Aged Care (1996-2000). This included integrated various functions across the group, including finance, IT, and quality systems. Under his leadership, the Sisters of Mercy mission was expanded to include 12 service entities. He re-oriented the group from inner city hospitals to a suburban and regional focus,

including relocation of Mercy Hospital for Women, and the merger of St Vincent's Private and Mercy Private Hospitals.

In his earlier years, Shane ran a successful health consulting business, held senior positions in Health Department Victoria, and was the founding co-ordinator of the first health advocacy organisation in Victoria (Health Issues Centre).

Shane originally trained as a social worker and gained a Master of Arts (Public Policy) at the University of Melbourne, following four years of theological studies at Catholic Theological College in Melbourne. He is a graduate and member of the Australian Institute of Company Directors (GAICD) and is a Certified Health Informatition Australia (CHIA).

Shane is located out of Melbourne.