COMORBIDITY GUIDELINES

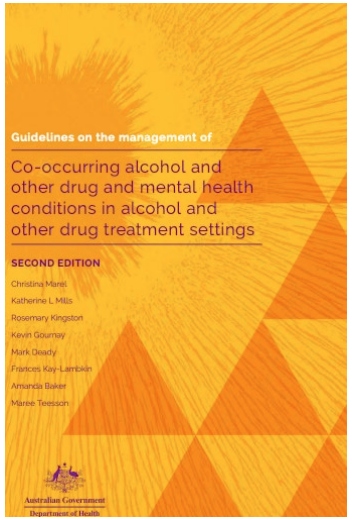
Funded by Australian Government Department of Health

Delivered by THE UNIVERSITY OF SYDNEY Matilda Centre

FREE WEBINAR | TUESDAY 23 NOVEMBER 1 PM AEDT

Multiple health behaviour change: perspectives from the field with Prof Frances Kay-Lambkin, Dr Adrian Dunlop and Dr Lawrence Dadd

Figure 5: Harms associated with comorbidity



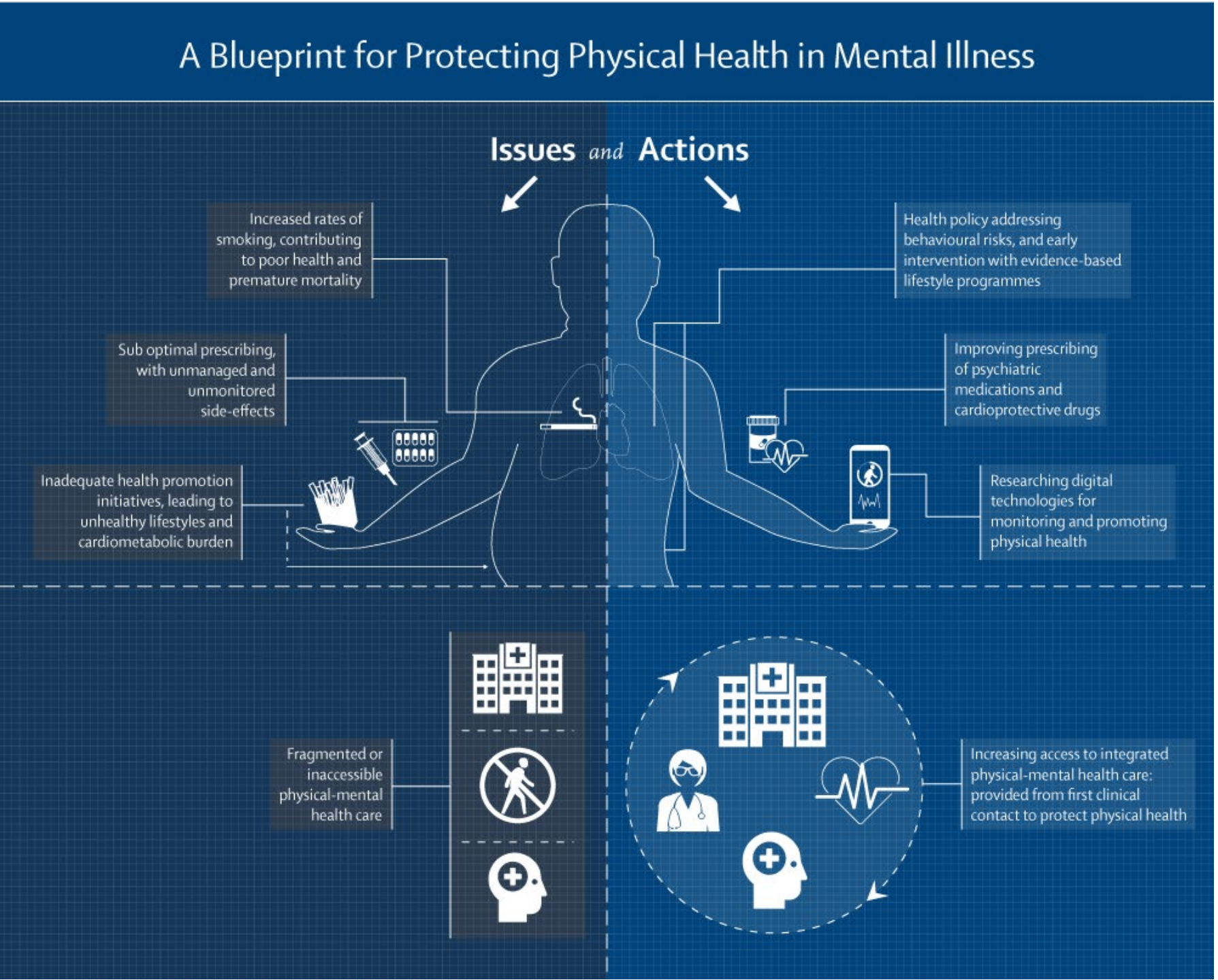
COMORBIDITY GUIDELINES

	Alcohol	Tobacco use	Physical activity	Sedentary behaviour	Poor diet	Poor sleep
Major depression	SR: around 30% of patients have or have had alcohol use disorder[124]	SR: patients are more likely to smoke and be dependent on nicotine, are less likely to quit, and are more likely to relapse[125]	MA: around 60–70% of patients do not meet physical activity guidelines[126,127]	MA: patients are sedentary for 8·5 h per day[127]	ES: patients have significantly higher food intake and poorer diet quality than the general population[128]	ES: patients have significantly poorer continuity of sleep and reduced sleep depth compared with healthy controls[129]
Anxiety disorders	ES: 17·9% of patients have alcohol dependence or misuse[130]	MA: 41% increase in risk of regular smoking and 58% increase in risk of nicotine dependence[131]	ES: individuals with panic disorders, social phobia, and agoraphobia report significantly less activity[132]	SR: inconsistent evidence for increased sedentary time in people with anxiety[133]	Insufficient evidence	MA: anxiety disorders[129,134] and obsessive-compulsive disorder[135] are associated with reduced sleep quality
Bipolar disorder	MA: 1 in 3 patients have or have had alcohol use disorder[136]	MA: increased rates of current smoking (higher than in patients with major depression but lower than in patients with schizophrenia)[137]	MA: the majority of patients meet physical activity guidelines and are no different to the general population[81,126]	MA: patients are sedentary for more than 10 h per day[81,126]	MA: patients consume around 200 calories more than the general population per day[138]	MA: even between episodes, people with bipolar disorder have increased sleep-wake disturbance, similar to patients with insomnia[139]
Schizophrenia	MA: 1 in 5 patients have or have had alcohol use disorder[140]	MA: significantly higher rates of current smoking, heavy smoking, and nicotine dependence[141]	MA: the majority of patients do not meet physical activity guidelines[108,126]	MA: patients are sedentary for around 11 h per day[142]	MA: patients consume around 400 calories more than the general population per day[138]	MA: patients have significantly reduced sleep time and quality of sleep[129,134]
First-episode psychosis	MA: 27% of patients have or have had alcohol use disorder or alcohol dependence[143]	MA: 58% of patients use tobacco, which is a significantly higher prevalence than in matched controls[144]	MA: patients are less active than individuals with long-term schizophrenia[108]	Insufficient evidence	Insufficient evidence	MA: patients have significantly reduced sleep time and quality of sleep[134]
Post-traumatic stress disorder	SR: increased prevalence of comorbid alcohol misuse (10–61%) compared with the general population[145]	MA: patients are 22% more likely to be current smokers than the general population[98]	MA: patients are 9% less likely to be physically active than the general population[98]	Insufficient evidence	MA: patients are 5% less likely to have a healthy diet than the general population[98]	MA: significantly poorer continuity of sleep and reduced sleep depth compared with healthy controls[129]

Results described as significant had $p<0·05$. Comparisons are with the general population unless otherwise stated. SR=systematic review of case-control, clinical, or epidemiological research. MA=meta-analysis of multinational data. ES=large-scale epidemiological studies.

Table 2: **Prevalence of behavioural risk factors across different mental health diagnoses**

Firth J, et al. *Lancet Psychiatry* 2019;6:675-712



Firth J, et al. The Lancet Psychiatry Commission: a blueprint for protecting physical health in people with mental illness. *Lancet Psychiatry* 2019;6:675-712

Preventing multimorbidity…

Evidence-based integrated care should be provided from the onset of mental illness to reduce the prevalence and impact of physical health conditions in people with mental illness.

Efficient management of physical health comorbidities in people with mental illness might depend on improving accessibility, referral pathways, and quality of dedicated parallel services.

Firth J, et al. The Lancet Psychiatry Commission: a blueprint for protecting physical health in people with mental illness. *Lancet Psychiatry* 2019;6:675-712

Dr Lawrence Dadd

Health co-morbidities for people with a mental illness

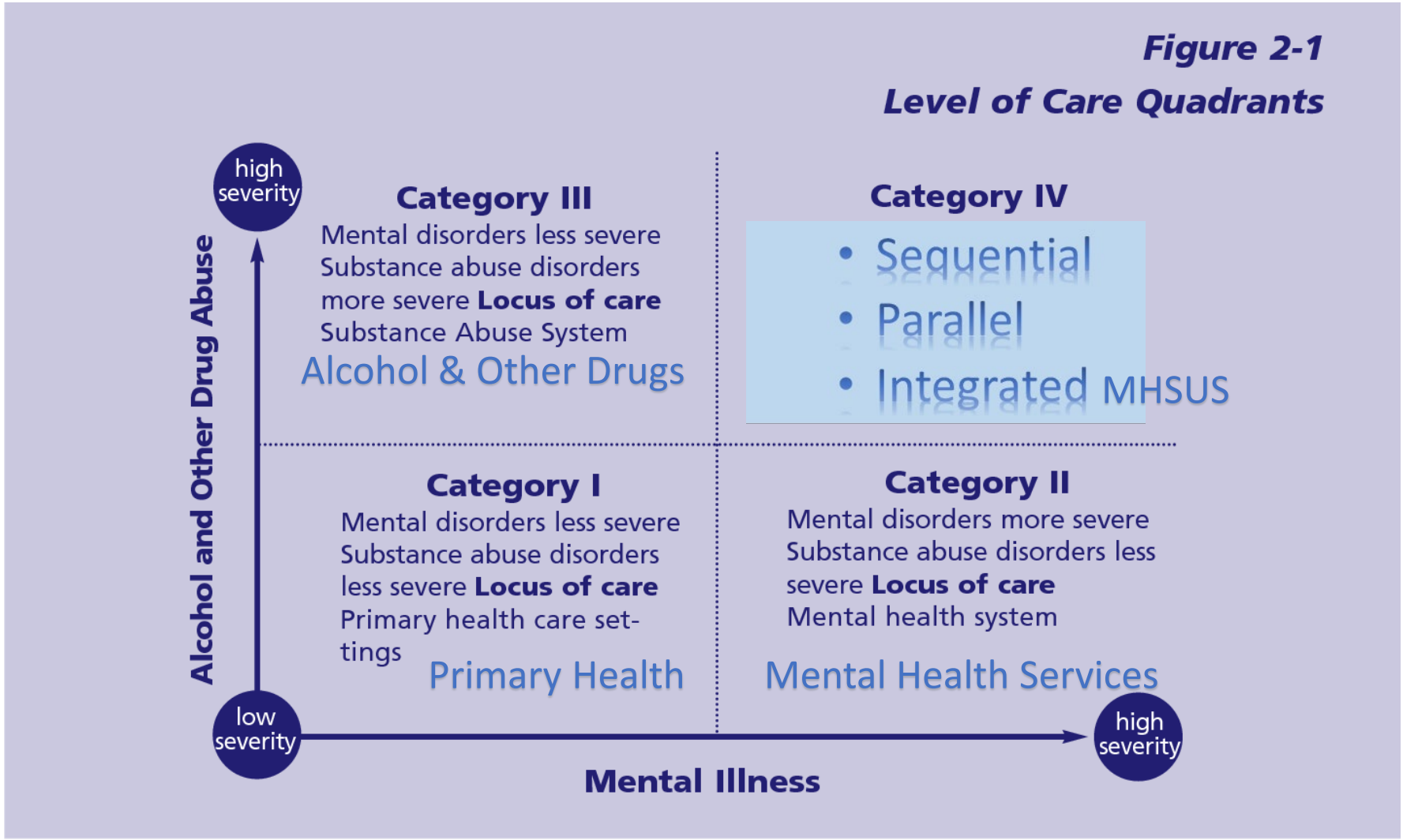
Dr Lawrence Dadd MBBS, FRANZCP

Senior Staff Specialist, Mental Health and Substance Use Service, HNELHD

Consultant Psychiatrist, Awabakal / Armajun / Tamworth Aboriginal Medical Services

Webinar 23/11/21

Mental Health and Substance Use Service



Dual Diagnosis Service → MHSUS

- **Prior to 2013, with the introduction of DSM 5,** there was Multi axial diagnostic system used by DSM

- AXIS I mental health disorders
  - eg extra depression +/- anxiety … can include 'mental health conditions' *
- AXIS II personality traits / disorder
  … all trauma, complex PTSD
- AXIS III medical comorbidity
  … cardiovascular / metabolic, including smoking; Hep C +/- etoh liver disease etc
- AXIS IV psychosocial
  … forensic, housing, employment
- AXIS V 'function'

- now gone … however, the idea of a **'whole of person' approach** still important

Keep the silos? Or do everything?

- 360 edge report on ‘to integrate or not to integrate’ MH and D&A services ?
- several interesting discussion points
- … including, ‘why integrate only AOD and MH?’ when there are lots of comorbidities
- “should we merge all services?”
  - eg P&P, DoH, Centrelink, DV, Child Protection etc etc etc
- We do have a role to Recognise, Respond, and Refer

360edge.

Keep the silos? Or do everything?

What gets in the way?

- The ‘silos’ don’t meet the needs of our patients … service users prefer a ‘one stop shop’

Keep the silos? Or do everything?

BUT

- Doing everything is too much!

Keep the silos? Or do everything?

What gets in the way?

- The ‘silos’ don’t meet the needs of our patients … service users prefer a ‘one stop shop’

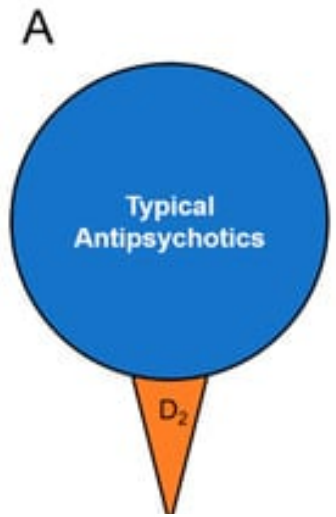
BUT

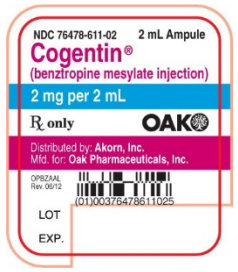
- Doing everything is too much!
- …even if you ‘just screen’ for something and the answer is ‘yes’ … then you have to do something / know how to do something

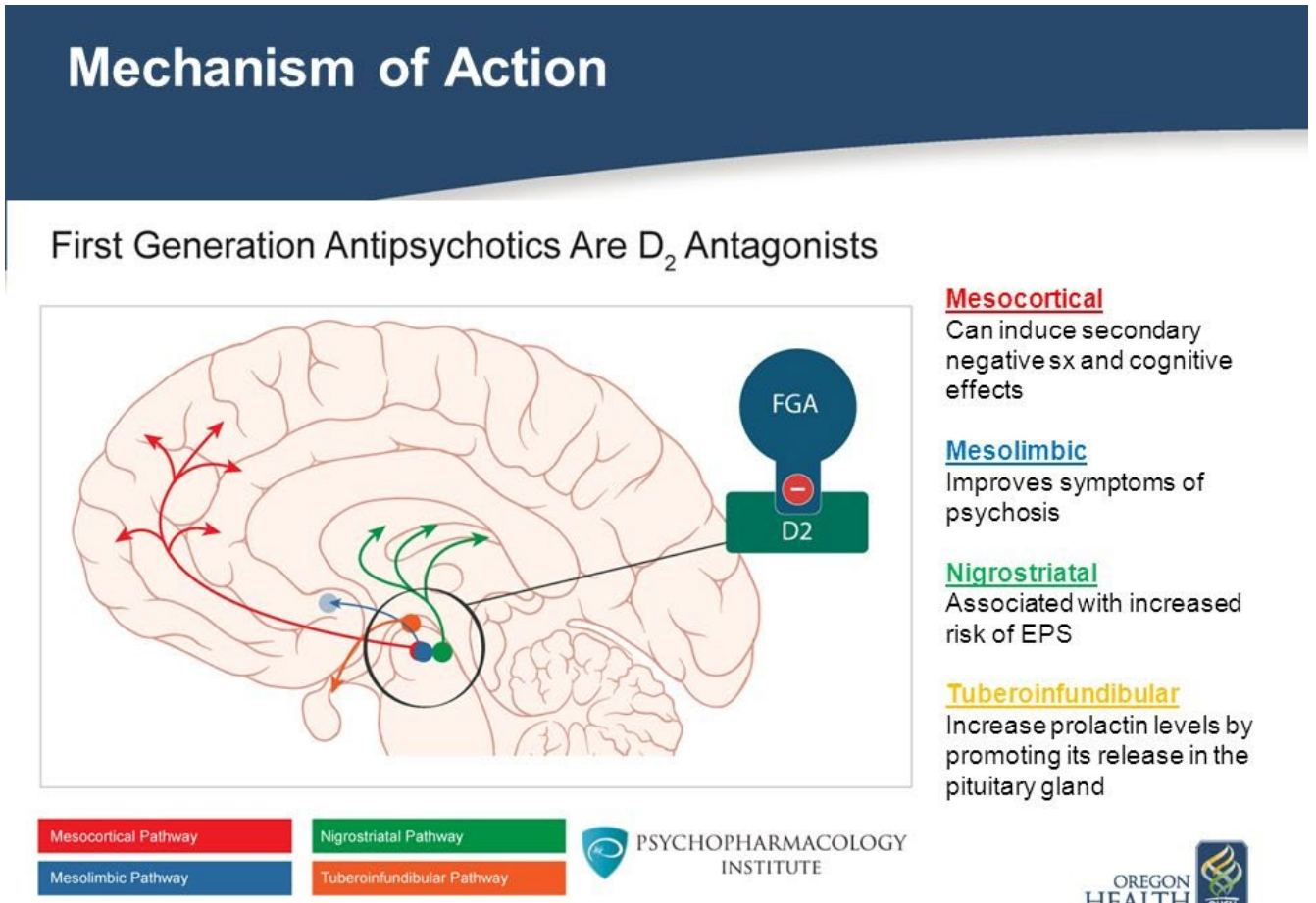
Keep the silos? Or do everything?

- What could be done?
- We do have a role to Recognise, Respond, and Refer (if needed)
- Learn to not ignore comorbidities
- Learn how to do some stuff
  - important / urgent
  - common
  - ‘falls into your lap’
- Learn how to refer appropriately
  - Develop pathways / MOUs etc

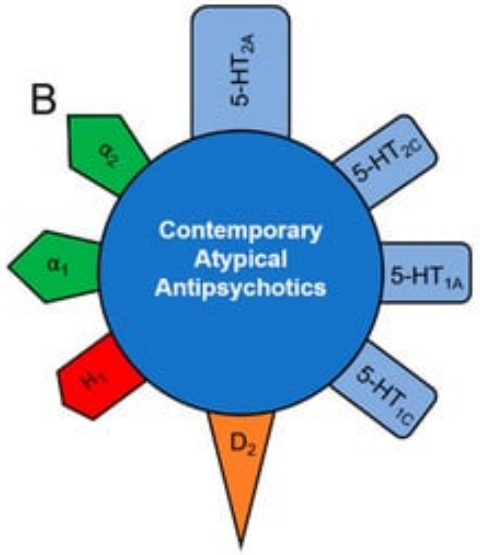
eg EPSE … acute dystonic reactions (urgent)

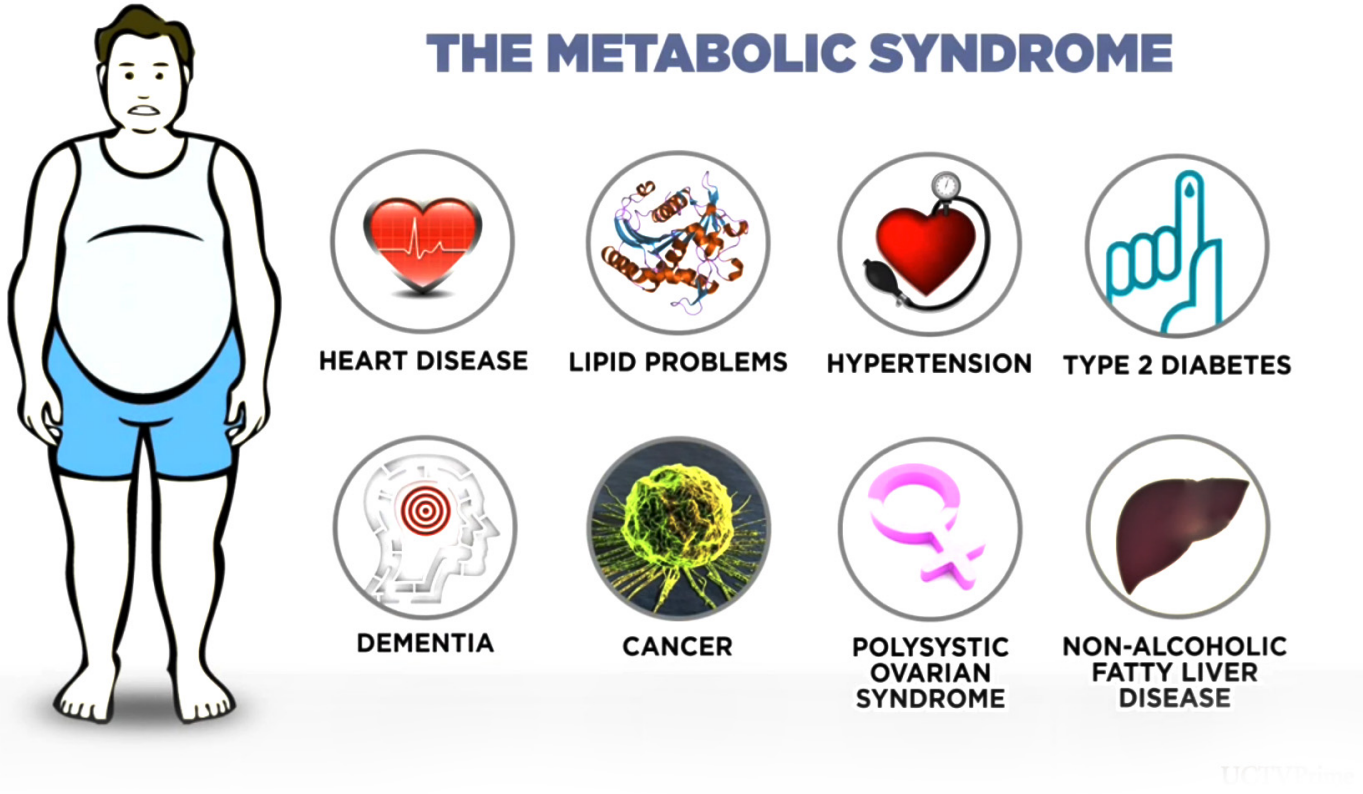






eg metabolic syndrome (important / common)





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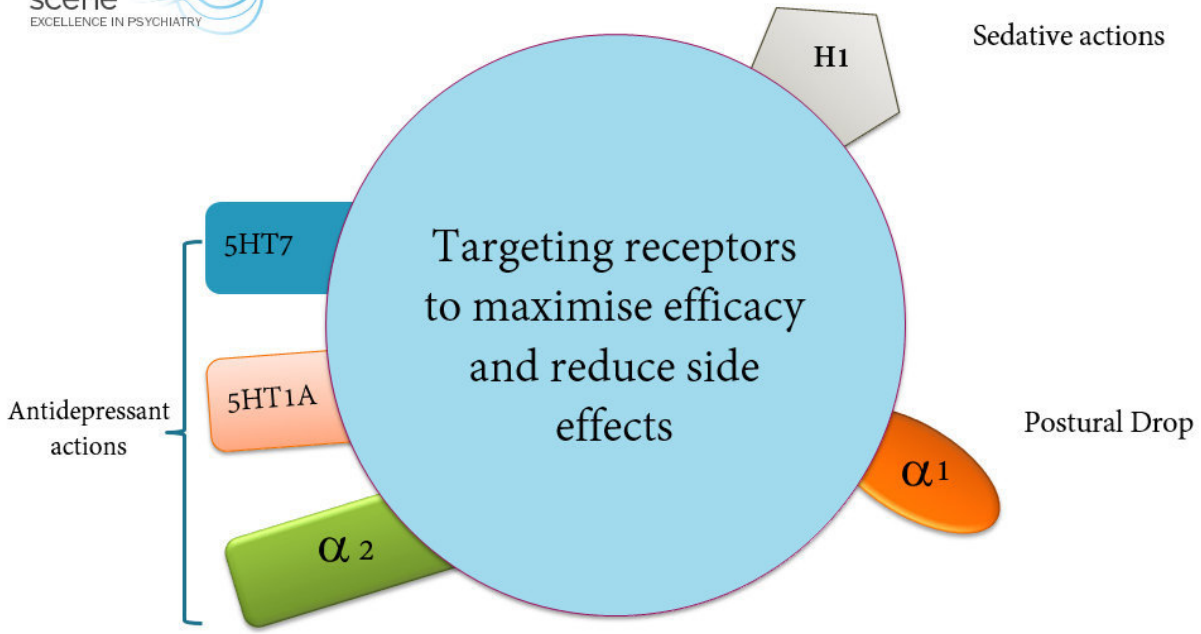


Choice of medication

Change vs Prevention

THE METABOLIC SYNDROME

We do have a role to Recognise, Respond, and Refer (if needed)

Regular screening ✓

- Height, weight, BP
- BSL, lipids

Learn how to do some stuff

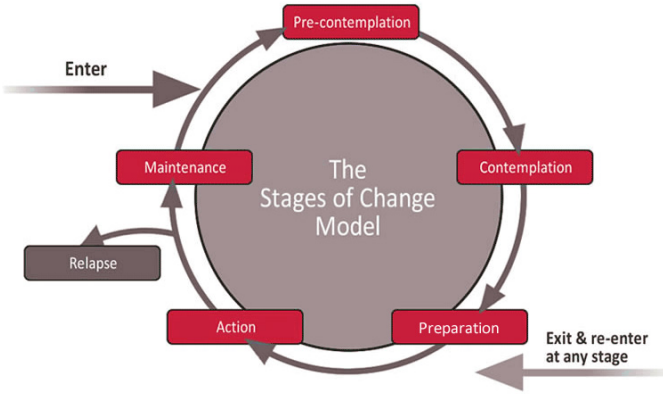
Learn how to refer appropriately

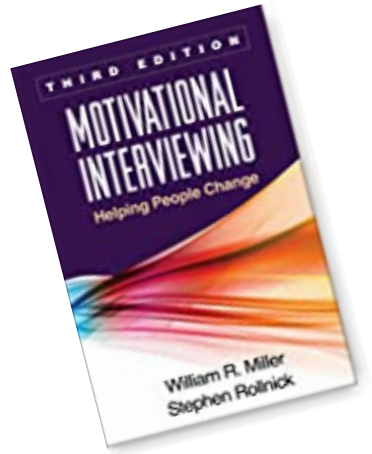
- develop pathways / MOUs etc

relationships with GPs ⇌
endocrine clinics, next door to clozapine

eg smoking / weight (important / common) **behaviour change**

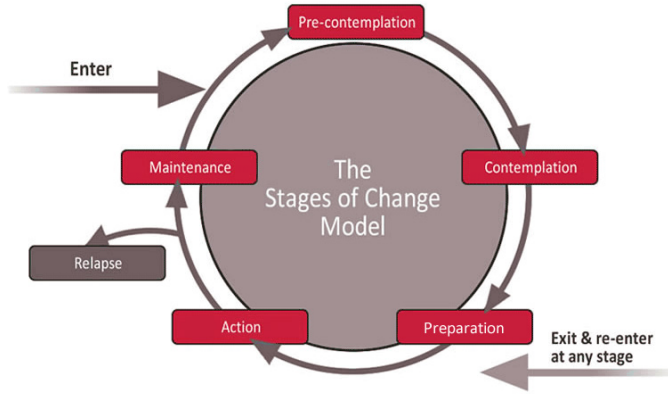
"do some stuff" … the 5 A's of intervention





eg smoking / weight (important / common) **behaviour change**

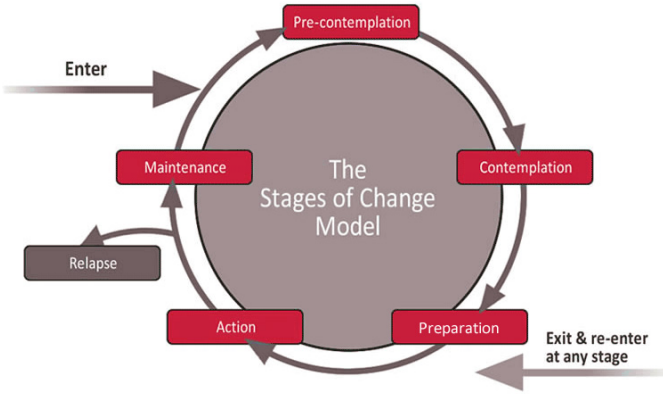
"do some stuff" … the 5 A's of intervention



- **Ask** … 'routine' questions

eg smoking / weight (important / common) **behaviour change**

"do some stuff" … the 5 A's of intervention

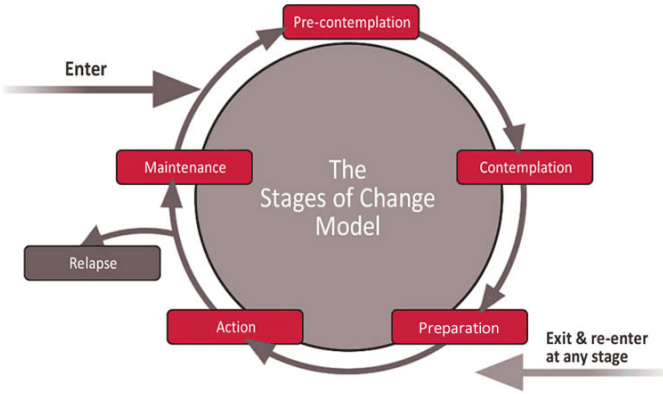


- **Ask**
- **Advise** … give clear, strong, personalised advise about the RISK
  - this sort of advice is expected of Health Staff … it is not a surprise

  … but if you don't provide the message, it can be perceived that "it's ok"

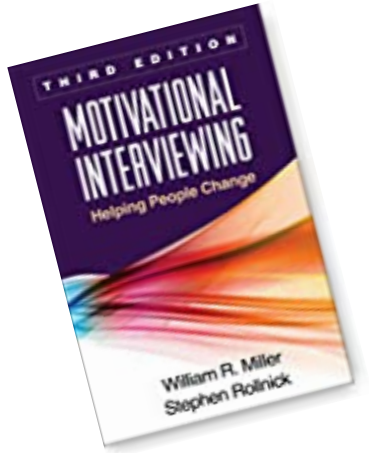
eg smoking / weight (important / common) **behaviour change**

"do some stuff" … the 5 A's of intervention



- **Ask Permission** … to give advise
- **Advise** … give clear, strong, personalised advise about the RISK
  - expected of Health Staff

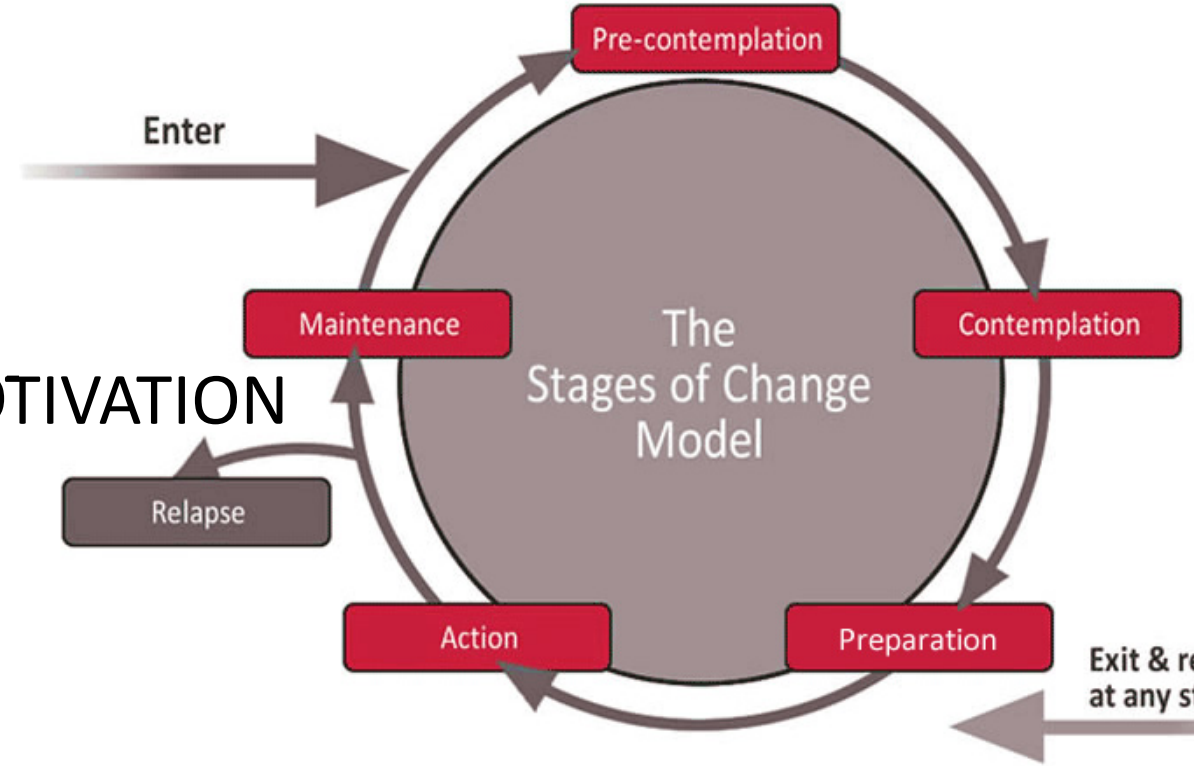
  … and if you don't message can be perceived that 'it's ok'

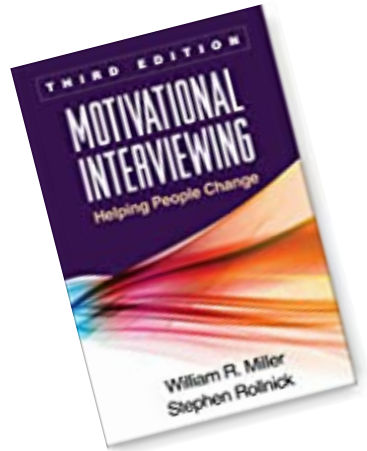


eg smoking / weight (important / common) **behaviour change**

"do some stuff" … the 5 A's of intervention

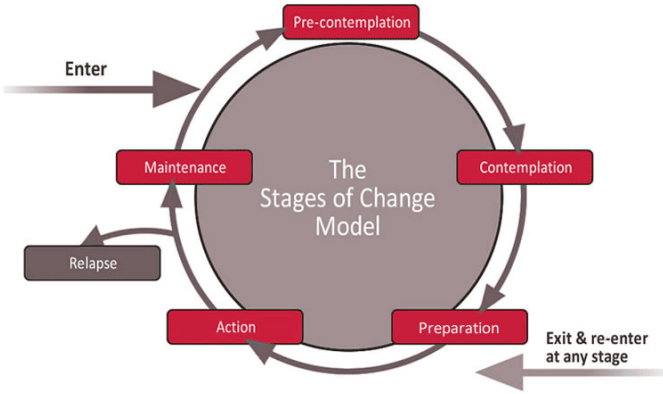
- **Ask**
- **Advise**
- **Assess** MOTIVATION





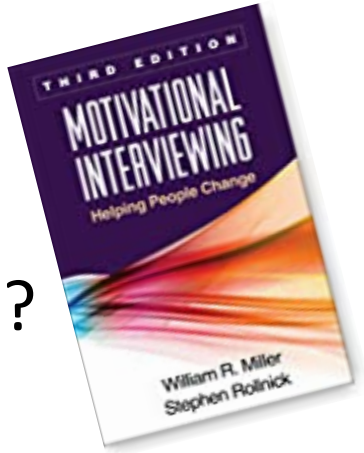
eg smoking / weight (important / common) **behaviour change**

"do some stuff" … the 5 A's of intervention



- **Ask**
- **Advise**

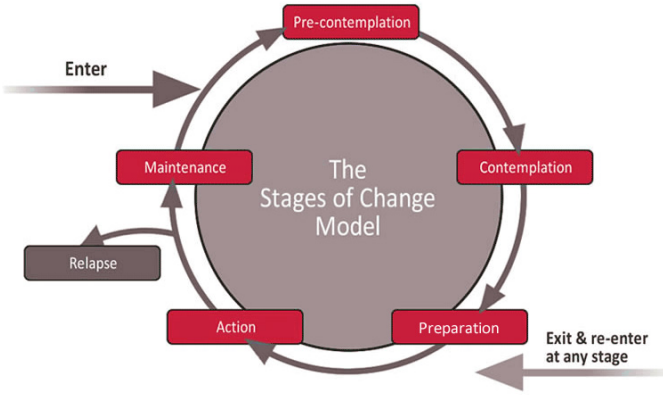
- **Assess**
- **Assist** … NRT / Medications? Counselling? Referrals?



EAGLES

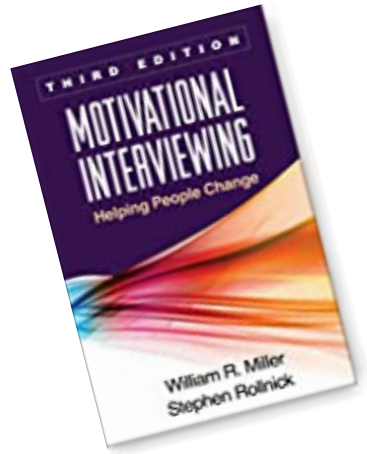
Quitline 137848

eg smoking / weight (important / common) **behaviour change**



"do some stuff" … the 5 A's of intervention

- **Ask**
- **Advise**



- **Assess**
- **Assist**
- **Arrange** follow up
  - … incorporated into regular **individual** reviews
  - and **group** (eg topics) … also strong peer-to-peer influence

eg Hep C (‘fall into your lap’)

NSW Ministry of Health focus for the state (Hep C Elimination by 2028)

Support from Hunter New England Population Health

New Effective Treatments that are not ‘contraindicated’ in mental health

	Past therapy: Peg Interferon + Ribavirin	Current therapy: Interferon-free DAAs
Efficacy	40-80%	>95%
Dosing	Injection (weekly) + oral (daily)	All oral (daily)
Toxicity	Significant	Minimal
Duration	24-48 weeks	8-24 weeks
Uptake	Low	Potentially High

Step 1
See the doctor

Loss to F/U

Step 2
To the lab
for HCV Ab

Loss to F/U

Step 3
See the doctor
for result

Loss to F/U

Step 4
To the lab
for HCV RNA

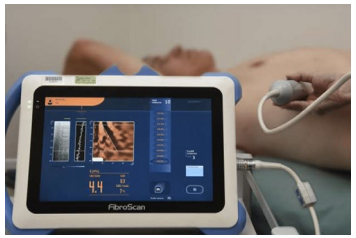
Loss to F/U

Step 5
See the doctor
for result

Loss to F/U

Step 6

[redacted]



[redacted]

Loss to F/U

Step 7

[redacted]

Patients	Prior treatment experience	SOF/VEL	GLE/PIB	SOF/VEL/VOX	SOF/LDV	GZR/EBR	OBV/PTV/r + DSV
Genotype 1a	Treatment-naïve	12 wk	12 wk	No	12 wk	12 wk (HCV RNA ≤800,000 IU/ml)	No
	Treatment-experienced	12 wk	12 wk	No	No	12 wk (HCV RNA ≤800,000 IU/ml)	No
Genotype 1b	Treatment-naïve	12 wk	12 wk	No	12 wk	12 wk	12 wk
	Treatment-experienced	12 wk	12 wk	No	12 wk	12 wk	12 wk
Genotype 2	Treatment-naïve	12 wk	12 wk	No	No	No	No
	Treatment-experienced	12 wk	12 wk	No	No	No	No
Genotype 3	Treatment-naïve	No	12 wk	12 wk	No	No	No
	Treatment-experienced	No	16 wk	12 wk	No	No	No
Genotype 4	Treatment-naïve	12 wk	12 wk	No	12 wk	12 wk (HCV RNA ≤800,000 IU/ml)	No
	Treatment-experienced	12 wk	12 wk	No	No	No	No
Genotype 5	Treatment-naïve	12 wk	12 wk	No	12 wk	No	No
	Treatment-experienced	12 wk	12 wk	No	No	No	No
Genotype 6	Treatment-naïve	12 wk	12 wk	No	12 wk	No	No
	Treatment-experienced	12 wk	12 wk	No	No	No	No

[redacted]

Loss to F/U

Step 8

[redacted]

Step 9

[redacted]

Loss to F/U

Clinical Liver Disease, Volume: 12, Issue: 5, Pages: 125-129, First published: 14 December 2018, DOI: (10.1002/cld.760) modified LD 2021

Step 1
See the doctor

Routine screening
of people already seeing us
Testing available on site

Step 2
To the lab
for HCV Ab

Staff education & awareness
(HARP team)

Step 3
See the doctor
for result

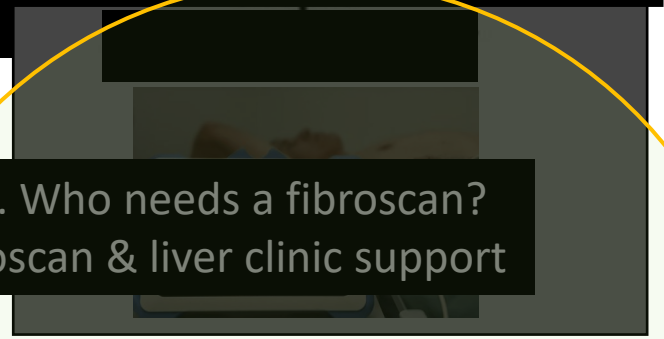
Reflex testing

Point of Care

Step 4
To the lab
for HCV RNA

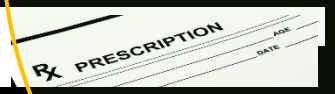
Nurse Referrer position

APRA score … Who needs a fibroscan?
MOU → fibroscan & liver clinic support



Step 7

Step 8



$$$uper expen$$$ive

Step 9

FOLLOW UP

Nurse Referrer Position

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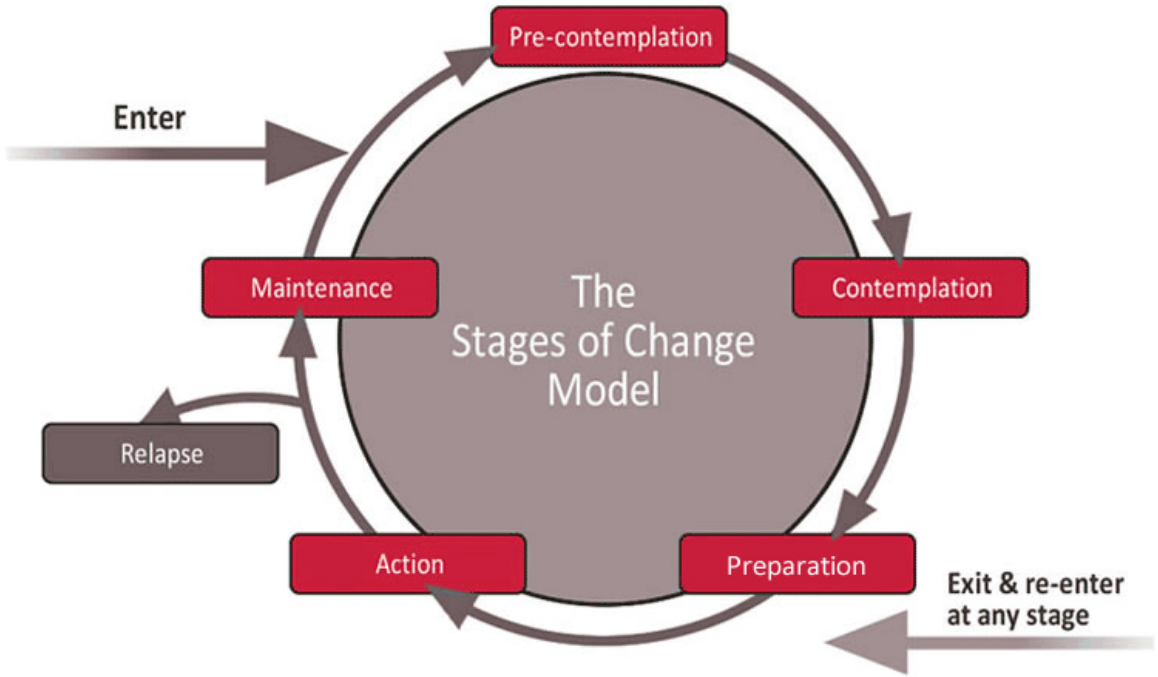
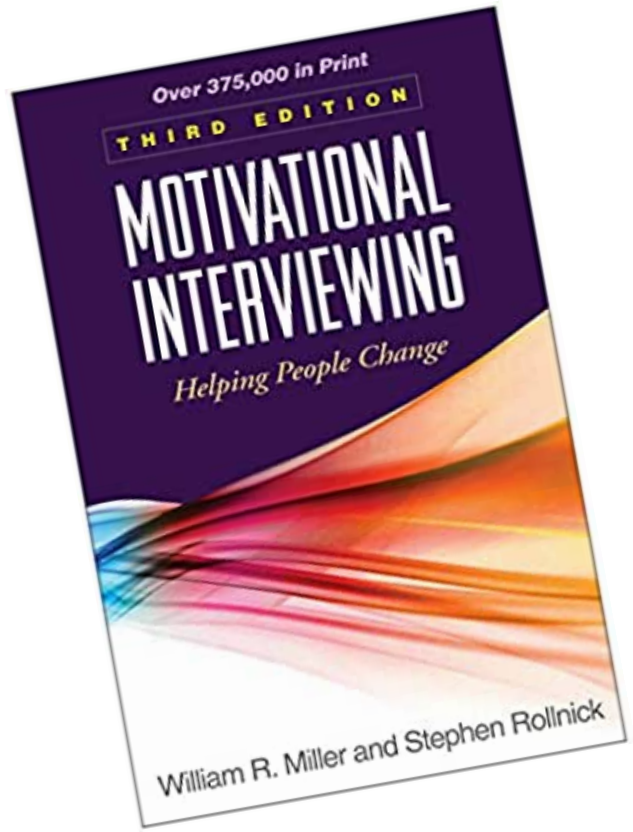

Pre-contemplation
Enter
Maintenance
The
Stages of Change
Model
Contemplation
Relapse
Action
Preparation
Exit & re-enter
at any stage


Over 375,000 in Print
THIRD EDITION
MOTIVATIONAL
INTERVIEWING
Helping People Change
William R. Miller and Stephen Rollnick

Professor Adrian Dunlop

Health co-morbidities for people who use drugs

Dr Adrian Dunlop MBBS PhD GdipEpiBiostat FAChAM FISAM CF
Director & Senior Staff Specialist, Drug & Alcohol Clinical Services, Hunter New England Local Health District
Conjoint Professor | School of Medicine and Public Health, Faculty of Health, University of Newcastle

FAChAM ADDICTION MEDICINE RACP

DACRIN
Drug & Alcohol Clinical Research & Improvement Network

~~Health co-morbidities for people who use drugs~~ Drug & Alcohol is all about co-morbidity

Dr Adrian Dunlop MBBS PhD GdipEpiBiostat FAChAM FISAM CF
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DACRIN
Drug & Alcohol Clinical Research & Improvement Network

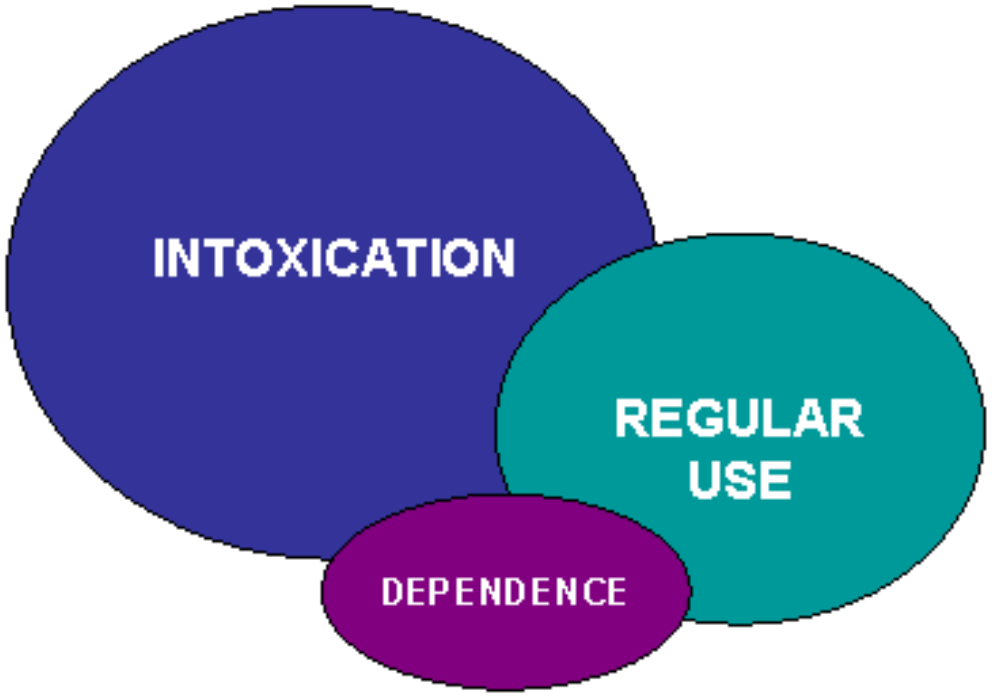
Types of health problems for people who use drugs

- Direct effects of substances – short/longer term consequences
- Related to risky behaviour related to acquiring/using substances
- Related to getting over the effects of substances

- Note – not covered in this session
  - Direct effects of substances (i.e. intoxication/withdrawal)
  - Mental health comorbidities – prevalent – depression, anxiety, trauma, personality…
  - Social comorbidities
    - reduced ability in roles – eg work, study, parenting/loss of productivity
    - Illegal status of substances – drug possession & use/related crime

Harms from substance use – how much

Acute problems
Injuries
Accidents
Violence
Risk-behaviour
Overdose
Absenteeism



Loss of control
Preoccupation with substance use
Tolerance/withdrawal

Bio-psycho-social health
Health (incl BBVs)
Finances
Relationships
Parenting – FACS
Productivity

from Thorley 1980

Table .1.1: Proportion of total burden, and burden of selected disease groups, attributable to the five risk factors causing the most burden, 2011

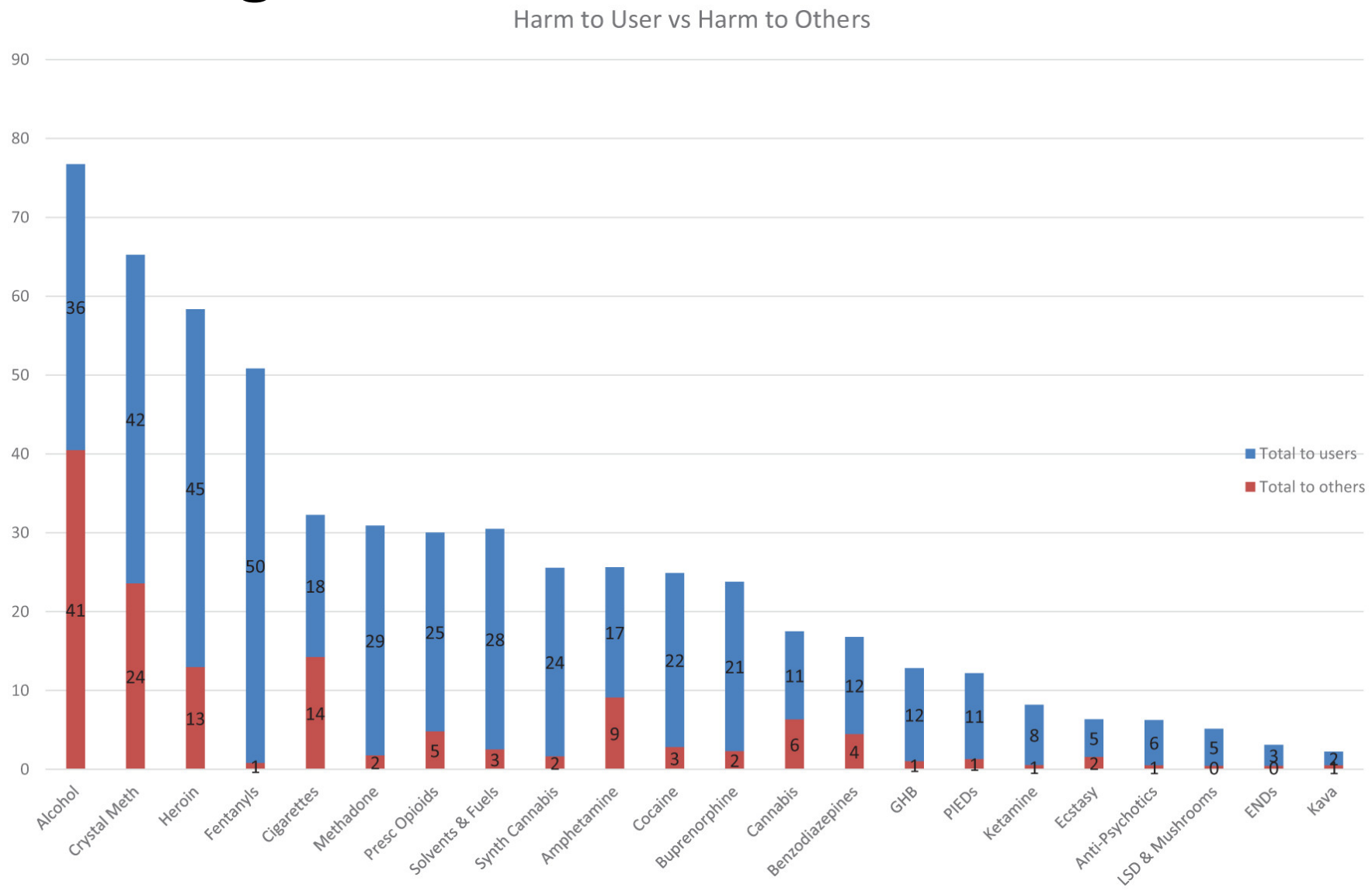
Disease group	Tobacco use (%)	High body mass (%)	High alcohol use (%)	Physical inactivity (%)	High blood pressure (%)
	Proportion of total burden				
All disease groups	9.0	5.5	5.1	5.0	4.9
	Proportion of disease group burden				
Cancer	22.0	4.5	3.3	6.4	..
Cardiovascular	12.0	21.1	4.8	21.2	31.7
Mental	..	..	12.2	..	..
Injury	..	..	20.6	..	..
Respiratory	36.2	..	..	..	..
Endocrine	3.5	49.4	2.0	29.7	..
Kidney/urinary	..	27.5	..	..	21.5

.. Indicates that there was no burden from this disease group that could be attributed to the risk factor in this study.

Source: Australian Burden of Disease Study 2011.

AIHW 2016, Burden of disease Aus 2011

Scale of drug harms

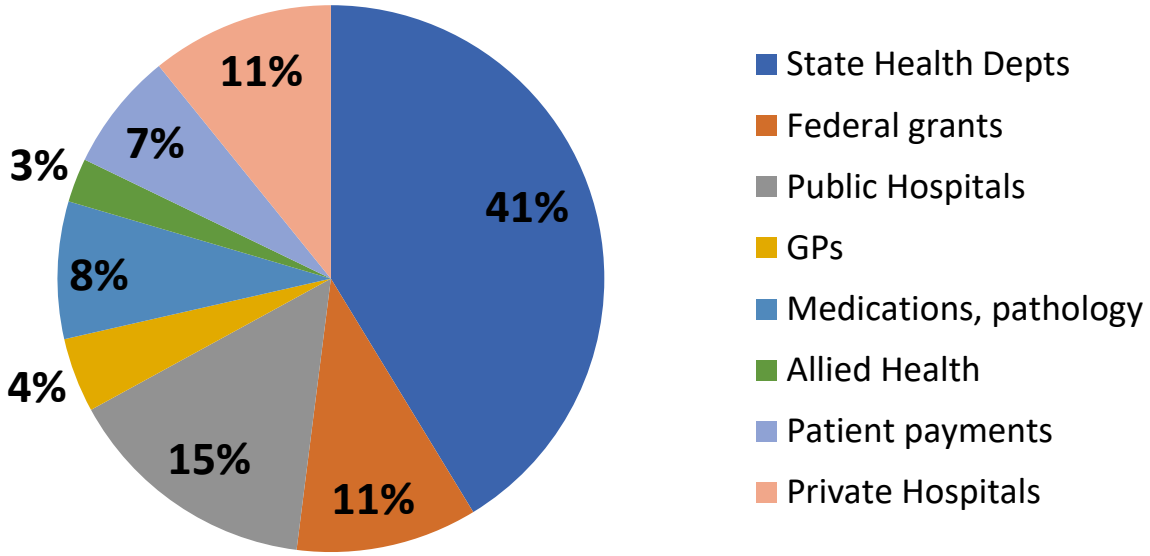


Bonomo, Y.,
J Psychopharmacol, *33*(7),
759-768

Figure 2. Contribution of harm to user and harm to others to overall harm.

Health care expenditure – drug & alcohol treatment

- Australia treatment
  - ~$1.2 billion (2012/13) - 0.8% health care



Looks good…. But

- NGOs/public/private
- Fed govt ‘forgets’ state public services
- GPs often separate
- Allied health often unaffordable
- Under supply ++++

Ritter DAR 2014

Tobacco smoking

- Highly prevalent in D&A populations (e.g. 90%+)
  - NRT, varenicline easy to deliver
  - Research into vaporised nicotine in this population…
- Cannabis smoking
  - Common as a primary and secondary substance
  - COPD as for tobacco

Injection drug use

- Blood borne viruses – HCV >> HBV, HIV
  - Integrated care possible for all (with support)
  - HCV treatment - straightforward
- Injection related infections (e.g. cellulitis)
  - Oral/IV antibiotics often required
- Septicaemia/endocarditis
  - inpatient ID/Cardiology treatment

Overdose

- Possible for all drugs (sedatives/stimulants differ)
- Sedatives (e.g. heroin, Rx opioids, GHB >> BZDs)
  - Overdose with respiratory depression/loss of consciousness
  - Risk of polysedative use
- Complications of non-fatal overdose
  - hypoxia (cognitive impairment) & related brain injury, compartment syndrome
- Prevention – take home naloxone

- Stimulants
  - Stroke, cardiac infarcts, arrhythmias, hyperthermia

Risk behaviour

- Sexually transmissible infections
  - Exchange of sex for drugs
  - Prevention/treatment (STI screening)

- Head injury (e.g. from assault), cognitive deterioration
  - Cognitive assessment

Alcohol

- Brain injury
- Injuries (falls, fights, fractures)
- GI related problems – gastritis, cirrhosis, varices, ascites, acute pancreatitis
- Peripheral neuropathy
- Cardiomyopathy
- Increased risk of multiple cancers (bowel, breast, oropharyngeal, larynx)

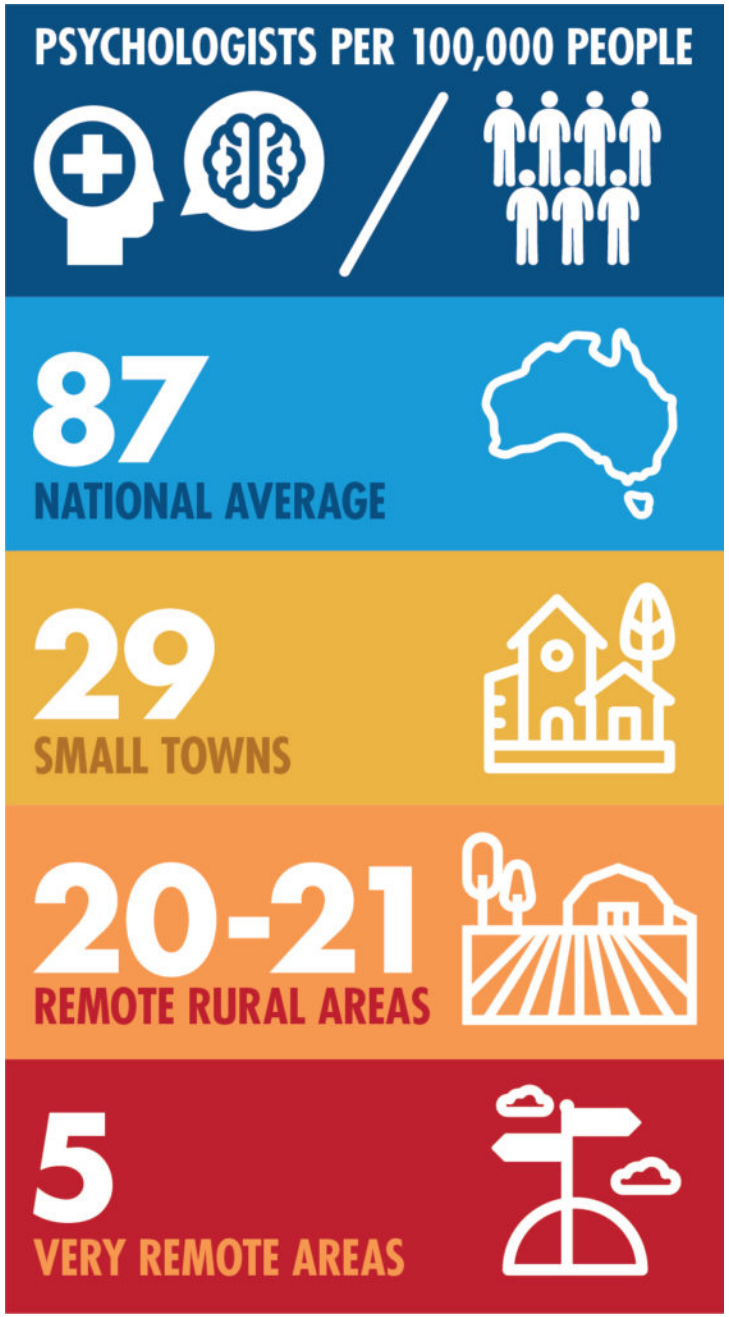
Good practice

- = prevention (how this can occur at an individual level once heavy/regular use established?)
  - Population level interventions… alcohol advertising, minimum pricing, volumetric taxes
  - E.g alcohol, tobacco
  - E.g. illicit substances – depenalisation/decriminilisation? (negative impacts policing e.g. sniffer dogs at festivals, street use and overdose)
- Drug treatment – decreased drug use and therefore related risks
  - Funding < 1% of all health care – Govt responses = law and order/personal responsibility
- Integrated treatment where possible
- Hospital CL services – vital, cost effective & not funded!

Doing everything is too much!

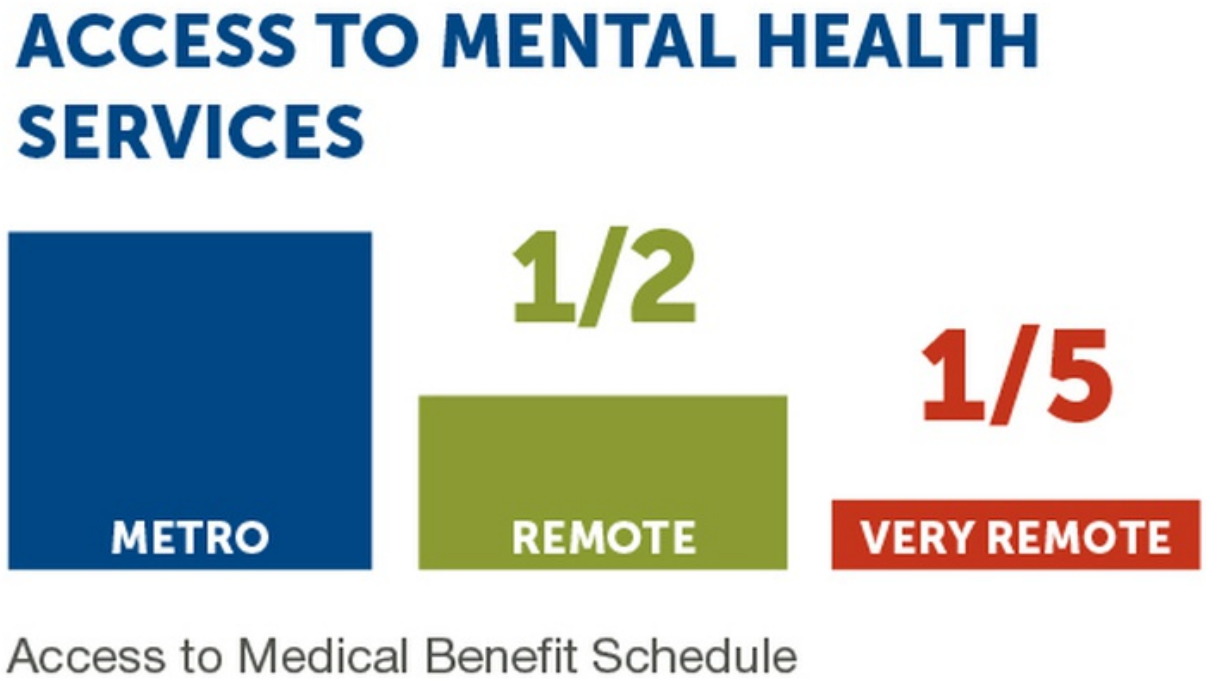
Even if you just screen for something and the answer is ‘yes’ … then you have to do something/know how to do something

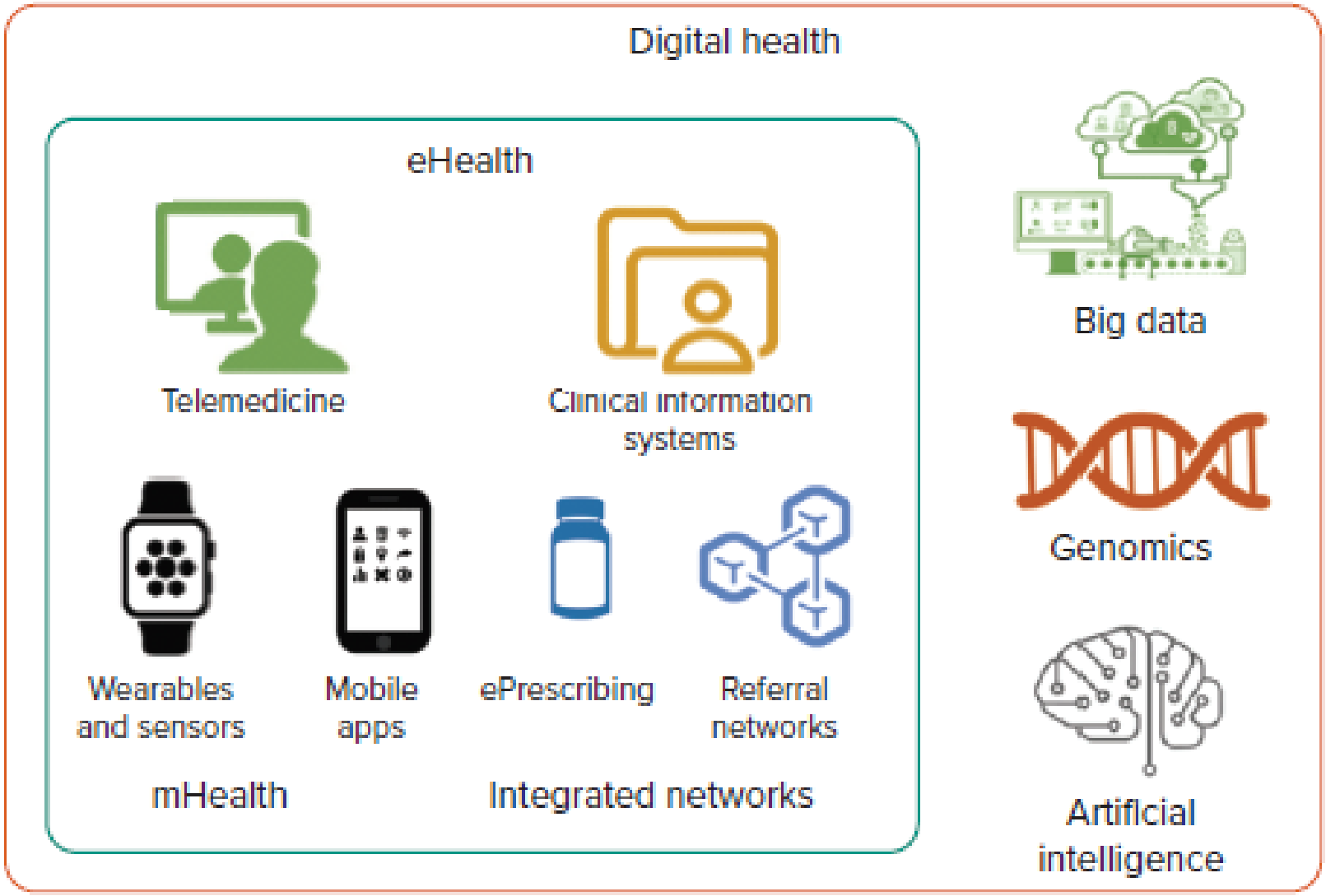
Physical health is inextricably linked to drug use/drug use treatment



1 psychiatrist per 1,424 Australians with a mental disorder

World Health Organisation: worldwide shortage of 1.8 million mental health workers





Source: WHO 2019[1] and Cowie et al. 2016.[63]

- 76% of Australian adults report they would be interested in using mobile phones for mental health monitoring and self-management
- Online and mobile mental health services are viewed as acceptable as seeing a health professional
- 59% of all US adults (72% of internet users) have looked for online for health information in the past year
- 13,600 health apps available on the Apple app store
- 3,000 mental health apps for Android, Apple and Microsoft freely available to download

Expert consultation…

Focus group sessions have been conducted with service users in Wagga Wagga and Narrandera

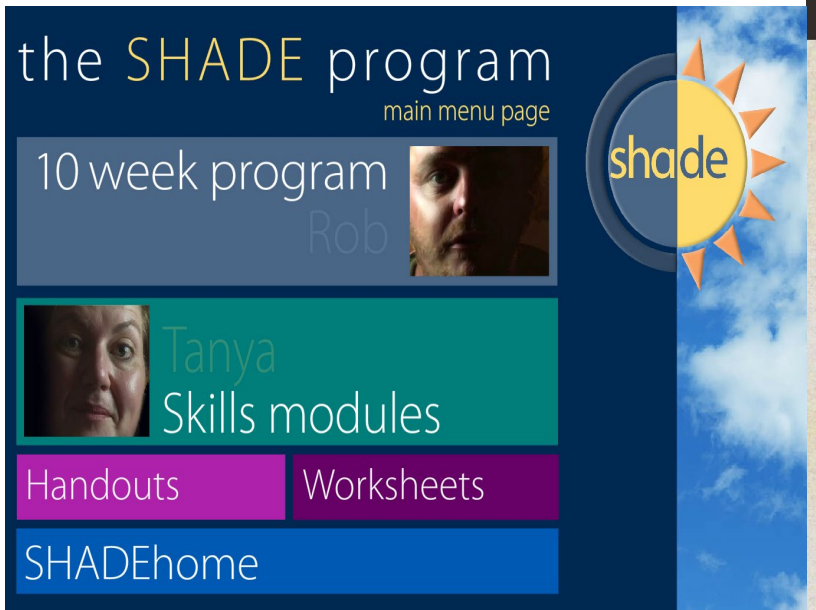
"I use computers a lot. My psychs are not available 24/7" (Female, 29, Drug and Alcohol Service)

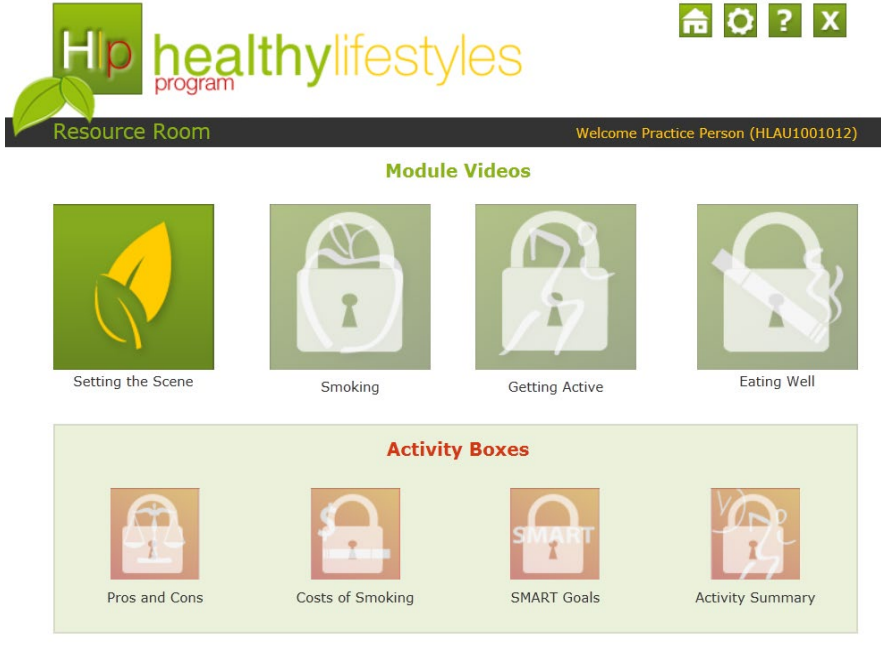
"It is much easier to be honest through a screen"
(Male, 28, Drug and Alcohol Service)

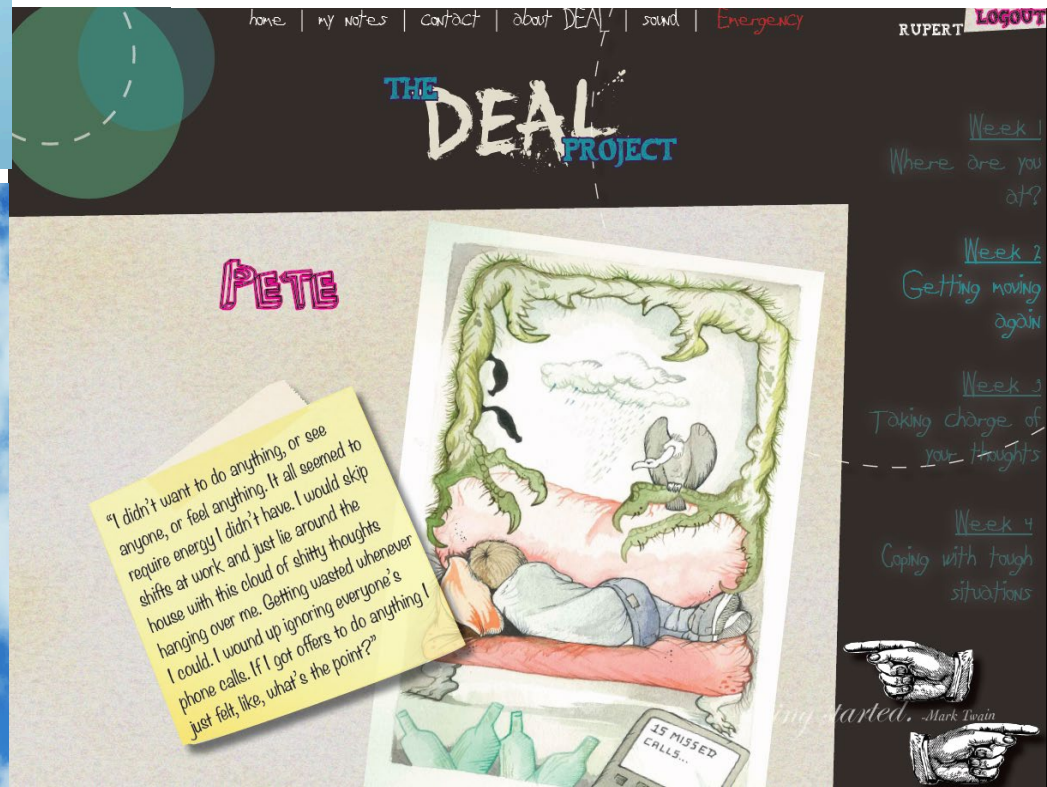
"I want to use it for the full gamut. All illnesses and drug and alcohol. And I'd be more likely to use it if you can remain anonymous"
(Male, 35, Mental Health Service)

Effective EBIs exist…

BREAKING THE ICE







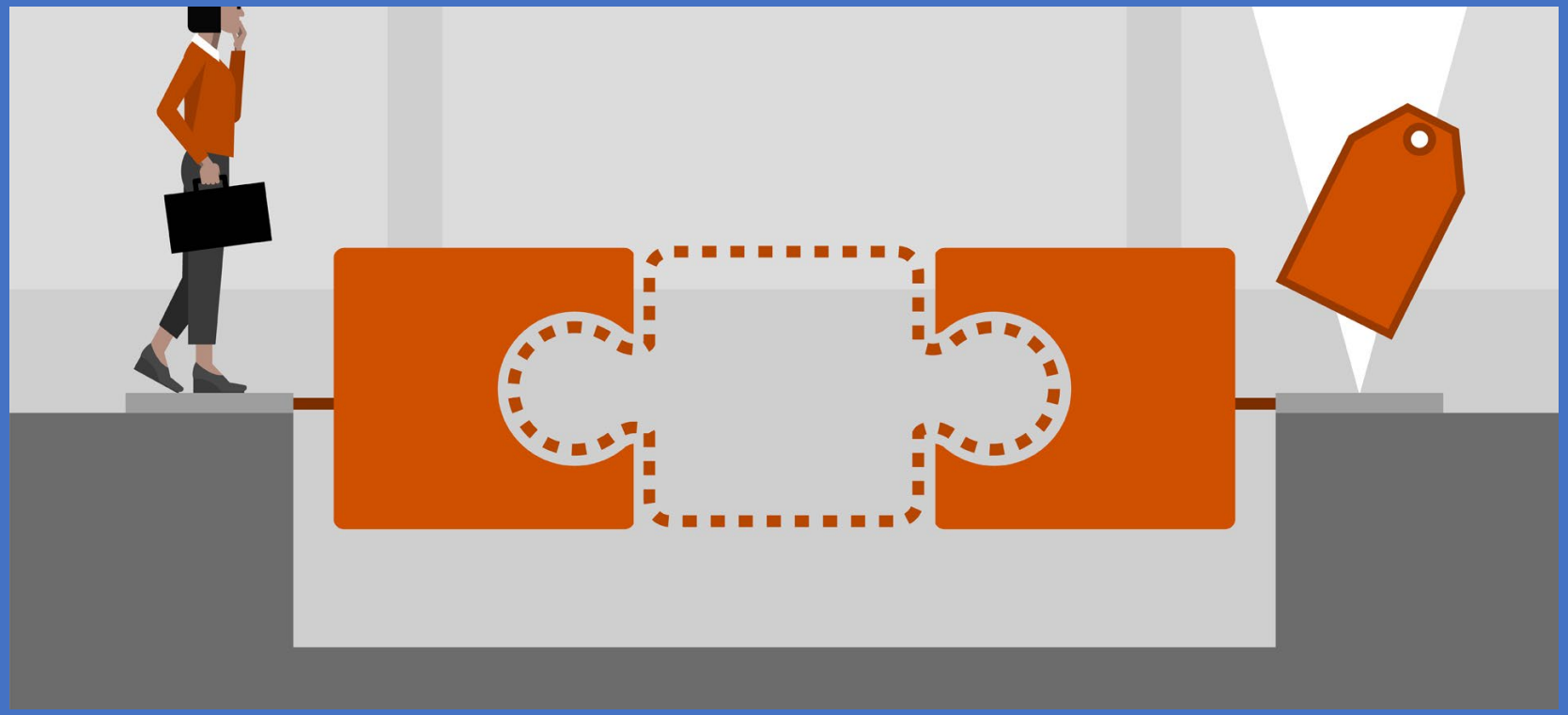

Hlp healthylifestyles program
Resource Room
Welcome Practice Person (HLAU1001012)
Module Videos
Setting the Scene
Smoking
Getting Active
Eating Well
Activity Boxes
Pros and Cons
Costs of Smoking
SMART Goals
Activity Summary

Health behaviour changes over time for an online intervention addressing smoking, diet and exercise.
(smokers with depression n=58 or psychotic disorder n=6)

	Baseline	6-months	Effect size
	Mean (S.D.)*	Mean (S.D.)	difference
Cigarettes per day	19.94 (9.34)	12.40 (9.84)	0.54
Fruit serves per day	1.05 (1.16)	1.45 (1.20)	0.33
Vegetable serves per day	2.05 (1.56)	2.95 (1.57)	0.70
Mod. Physical Act (mins/wk)	213.20 (267.20)	334.00 (549.24)	0.33
Leisure sitting time (hrs/wk)	74.42 (127.67)	58.08 (56.36)	0.20
Depressive symptoms	27.7(12.6)	15.2 (6.4)	1.04

* S.D. = standard deviation

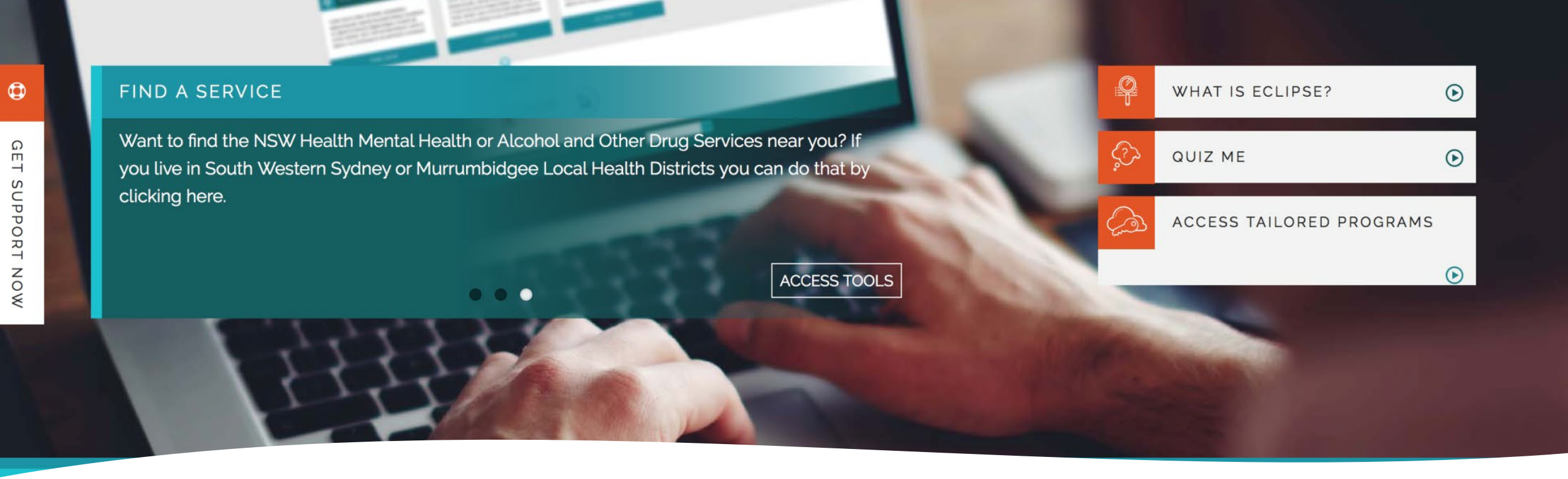
$p<0.05$ for Cigarettes per day, Vegetable serves per day, Depression
Tobacco abstinence rates of 17%



A gap still exists….

“To comprehensively promote the physical health of people with mental illness, ***a positive first step would be developing quick and widely applicable tools for lifestyle screening****. These tools could be used across different diagnoses, settings, and services,* ***to assess a range of behavioural risk factors (eg, exercise, diet, substance use, and sleep) at once, and thus identify key drivers of poor physical health on a case-by-case basis****. A comprehensive lifestyle assessment would give patients more actionable physical health information than that which is typically provided from screening for biological markers, because patients will be informed of specific lifestyle changes they could make to protect their physical health...”*

Can digital technologies (including smartphones and wearable technologies) could provide feasible and accurate methods of broad lifestyle assessment?



www.eclipse.org.au

- Funded by NSW Ministry of Health (MHDAO – now MH)
- Serve as a “virtual bridge” between mental health & drug health services
- Improve the capacity of mainstream health services to manage & treat comorbidity
- Provide access to evidence-based eHealth interventions
- Improve clinical pathway to care for comorbidity

HOW ARE YOU GOING?

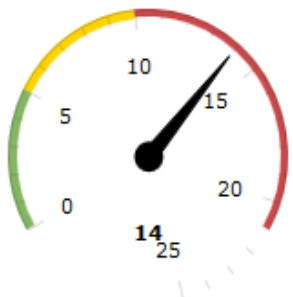
RECENT RESULTS | PAST RESULTS | DOWNLOAD

YOUR RESULTS

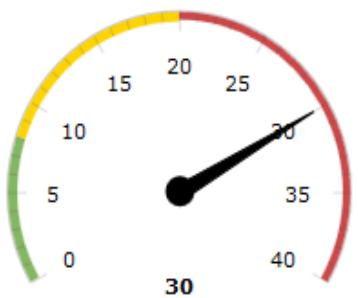
TAKE ANOTHER SURVEY

How are you going? This area provides results based on your responses to the eCliPSE quiz and let's you review past responses. To track progress over time use the past progress tab above. After each quiz we will recommend new programs if you meet the criteria for program access.

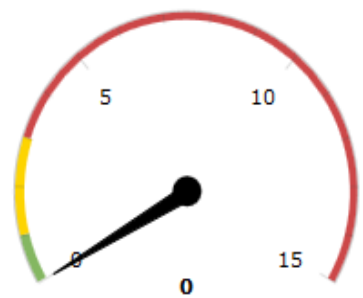
View results by date:



DASS DEPRESSION SCALE: **14**



AUDIT: **30**



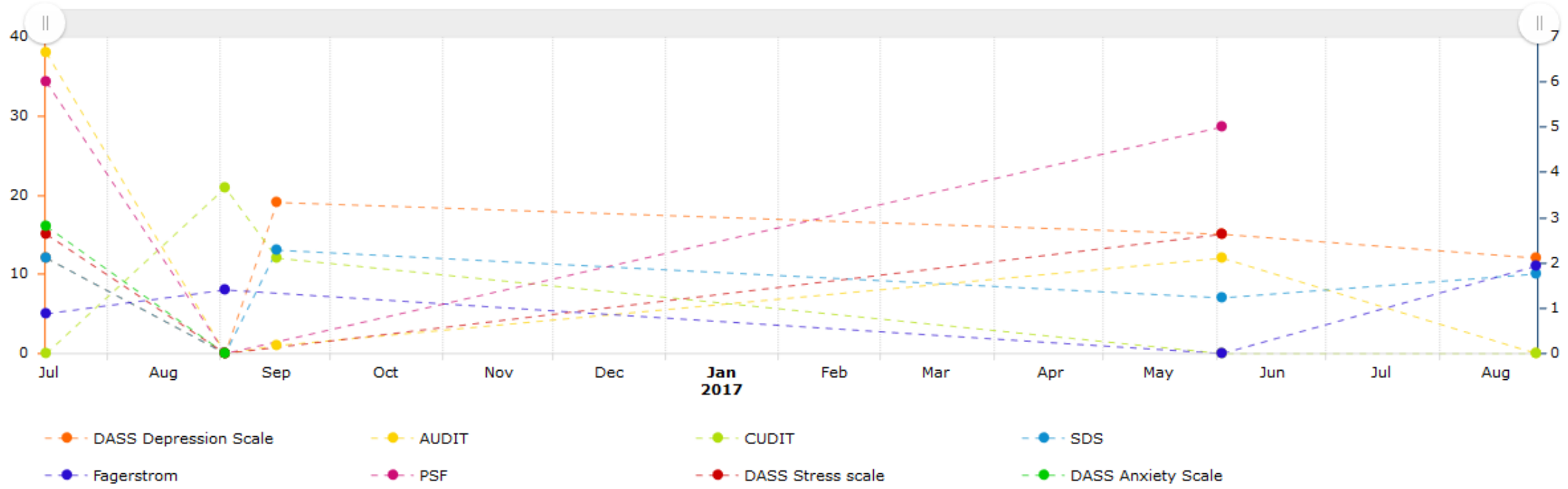
SEVERITY OF DEPENDANCE SCALE: **0**

RECENT RESULTS | PAST RESULTS | DOWNLOAD

PAST PROGRESS

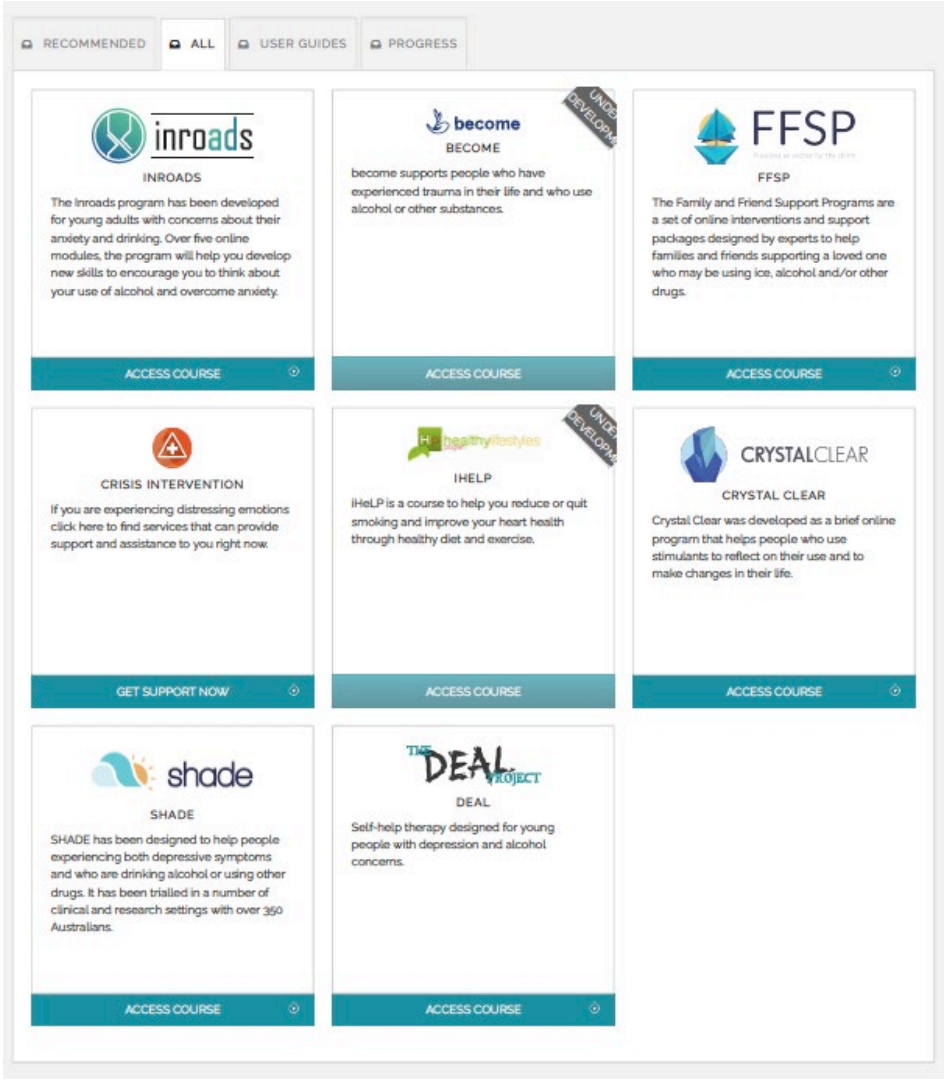
TAKE ANOTHER SURVEY

Past progress provdes you a way of reviewing your progress over time.



My courses: tailored access, EBIs

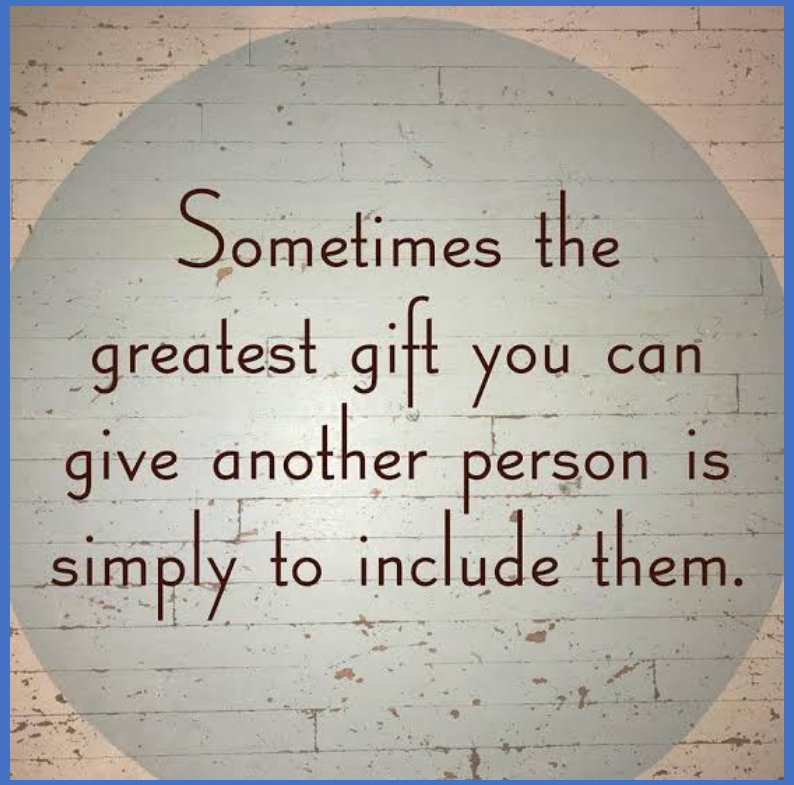
- More to come…
  - Evidence based
  - MORE (depression and anxiety)
  - Prescription Opioids



eCliPSE can extend the capacity of usual treatment

- access – geographical reach and service capacity
- continuity of care – leaving clients with something when the clinician is not there
- evidence based comorbidity treatment
- augment treatment as usual so that the clinician can get on with the work that only a clinician can do with the client; OR
- as a low intensity program for people whose symptoms wouldn't ordinarily warrant service access

Data privacy & safety



Thank you!

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THE UNIVERSITY OF NEWCASTLE AUSTRALIA

CBMHR
CENTRE FOR BRAIN AND MENTAL HEALTH RESEARCH

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