

Updated Response to Productivity Commission Draft Report

Our original submission, and this response, is oriented
to the needs of those with severe mental illness:

schizophrenia, schizoaffective disorder, bipolar disorder and severe depression

and, in particular, those with
comorbid overweight/obesity.

Please note Abbreviations

SMI Severe mental illness
OW Overweight
OB Obese, Obesity
BMI Body Mass Index
YPLL Years of Potential Life Lost

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Restart Health Services
January 2020



Key messages:

- 1 The draft report (P6) refers to 'under-investment in prevention and early intervention'. There is also **substantial under-investment** in facilities and services for those with severe mental illness (SMI).

More than 70% of this group have comorbid overweight/obesity. For this group, in Australia:

Total years of potential life lost per year (approx.)	185,000
This compares with the total from suicides and road accidents combined	152,000

Hence, along with investment in prevention and early intervention, there also a need for **substantial investment** in addressing the needs of those with SMI and comorbid overweight/obesity.

- 2 There is a mechanism to address the needs of those with SMI and comorbid obesity with the introduction to Australia of

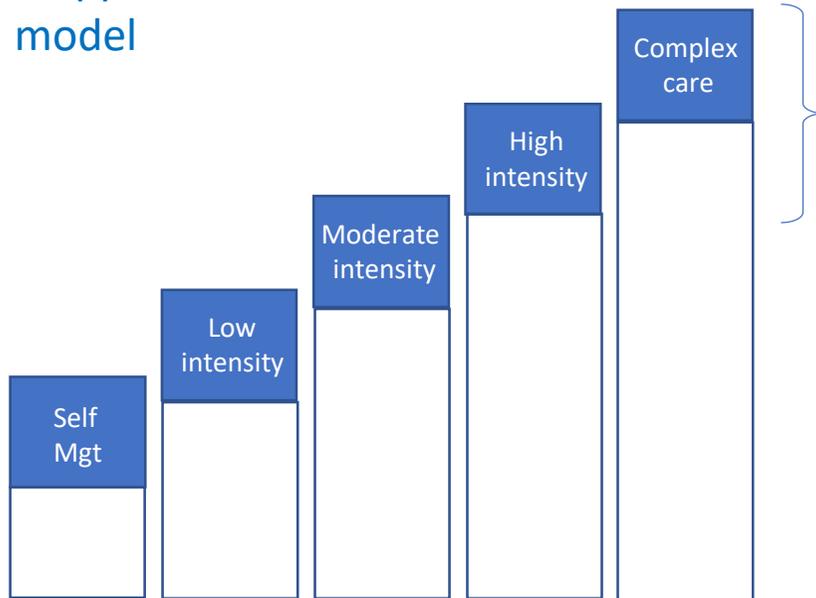
Residential Therapeutic rehabilitation and recovery Farms

targeted at the needs of this group. Whilst not currently existent in Australia, such farms exist in the USA. They achieve world's best practice mental illness outcomes, as verified by independent university evaluations. The outcomes, often, are not perfect mental health; but, destressing of residents, stabilisation of their illness, improving their social and independent living skills; and in many cases, making them 'work ready'. Such farms also offer excellent potential for weight loss and smoking cessation, with substantial savings in consequential public health costs for diabetes, cardio-vascular and other diseases.

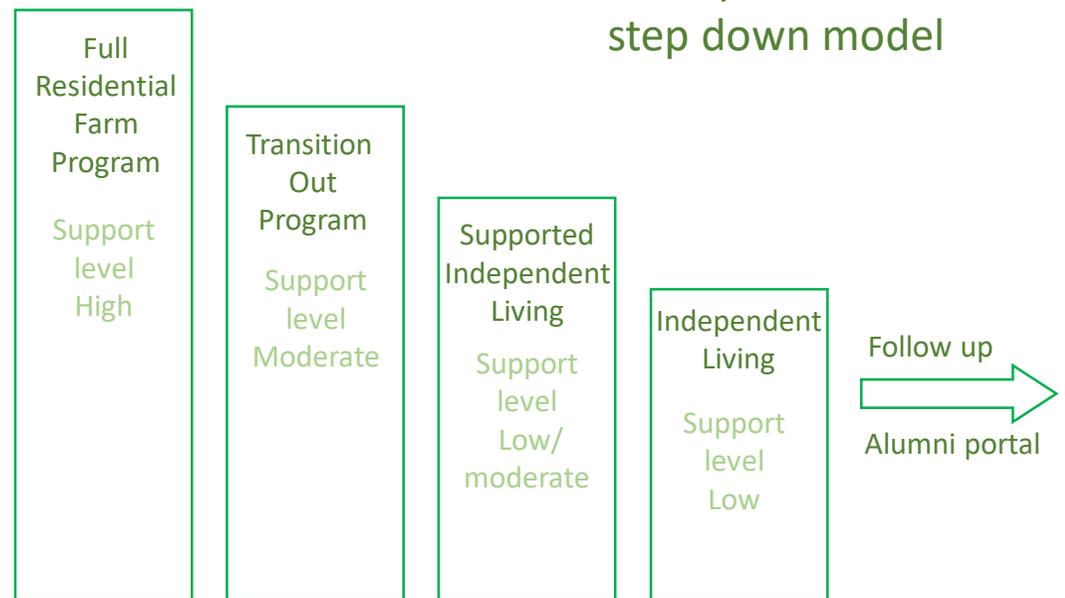


Integration of Therapeutic Farm with stepped care model

Stepped care model



Therapeutic Farm step down model



Following hospitalisation with severe mental illness, or with interventions prior to hospitalisation, it is possible for consumers to move to a residential Therapeutic Farm offering a full range of clinical and rehabilitation services. Farms can offer a wider range of services than city-based facilities.

At the hearing in Melbourne on 18 November, Commissioner Stephen King asked us to provide comparative costings for rural and city based facilities. A guideline to such costings is provided herewith.



Capital costs

Residential rehabilitation facilities for those with, or recovering from SMI

Item	City based facility	Therapeutic rehabilitation farm
Land purchase budget \$2.5 million	In the suburbs of a major city, this buys 0.1 – 0.5 Ha (0.25 – 1.2 Acres)	In regional, but not remote Victoria or NSW, this buys 20 – 200 Ha (50 – 500 Acres). <i>Compared to the city, in regional areas, for a given budget, far more land is available on which to build facilities.</i>
Building construction, like for like buildings. Overall, the construction costs are similar.	Base costs of materials and labour: This may be increased by constricted access, restrictions on parking, noise, the need to protect nearby powerlines etc.	Base costs of materials and labour: This may be increased by transport costs and, if unpowered, getting power to the site.

Overall, whilst there may be minor differences, capital costs are similar for city and rural based facilities with like for like buildings and equipment.



Facilities that may be provided

City based facility

Maximum capacity: 20-30 residents
Administration offices, dispensary
Medical assessment rooms
Nursing station, minor surgery facility, sanitorium
Individual or group therapy rooms
Resident accommodation areas
Lounge, dining room, kitchen, laundry
Indoor recreation (table tennis, pool table etc)
Large hall or meeting room for general purposes

Therapeutic rehabilitation farm

Maximum capacity: 60-80 residents
Administration offices, dispensary
Medical assessment rooms
Nursing station, minor surgery facility, sanitorium
Individual or group therapy rooms
Resident accommodation areas
Lounge, dining room, kitchen, laundry
Indoor recreation (table tennis, pool table etc)
Large hall or meeting room for general purposes
Large indoor sports/basketball area, gymnasium
Tennis court, swimming pool, art room, music room
Sports oval, walking tracks
Farm animals: horse, donkey, sheep, alpaca
Barn, large sheds, tractor, farm equipment etc
Onsite staff and visitor accommodation
Farms can offer a wider range of therapeutic recovery activities (see later).



Operating costs

The largest operating costs for facilities such as these are staffing costs

Item	City based facility	Therapeutic rehabilitation farm
Staffing costs	<p>Medical and therapeutic staff:</p> <ul style="list-style-type: none"> - Visiting psychiatrists - Psychologists - Psychiatric and general nursing staff - Program team leaders etc <p>Management, administration staff,</p> <ul style="list-style-type: none"> - Kitchen staff, maintenance staff. 	<p>Medical and therapeutic staff:</p> <ul style="list-style-type: none"> - Visiting psychiatrists - Psychologists - Psychiatric and general nursing staff - Program team leaders etc <p>Management, administration staff,</p> <ul style="list-style-type: none"> - Kitchen staff, maintenance staff.
Other costs	<p>Utilities: power, water, (gas) Food, general expenses Vehicles</p>	<p>Utilities: power, water, (gas) Food, general expenses Vehicles</p>

On a like for like program delivery basis, the operating costs are similar.

Therapeutic farms, having larger capacity, can achieve economies of scale for example:

in central administration, kitchens, laundry, maintenance workshop, buying power.

Farms could make extensive use of solar panels and batteries and go off grid.

Farms may grow some of their own food. Staff recruitment costs may be slightly higher for farms, but U.S. experience shows that staff turnover on therapeutic farms is low. People like to work in such places.



Conclusions

- 1 There are of the order of 800,000 Australians with severe mental illness. Most of these people have comorbid overweight/obesity. In total, across this group, there is of the order of 185,000 years of potential life lost per year. Much of this loss is unnecessary, and could be addressed.
- 2 The most effective way to address the needs of this group is to establish in Australia a number of Residential Therapeutic Farms dedicated to addressing the physical and mental health needs of this group.

Recommendations

- 1 The needs of this group be recognised, and given **equal top priority** in the recommendations of the Inquiry.
- 2 That on a pilot and evaluation basis, Australia establish two such Residential Therapeutic Farms, being potentially one each in Victoria and NSW. If the Commonwealth could provide the capital costs for these, the States may provide the operating funding.

The balance of this response provides further information on these matters.



P 319: Successful intervention requires

- Coordinated person-centred care, which brings together services for mental ill-health, physical ill-health, and alcohol and substance use.
- Specialist staff with skills and experience to work in complex multidisciplinary care environments.
- More data to support planning and commissioning of services targeting physical and substance use comorbidities
- Evaluations of programs to improve provision of services to people with physical and mental healthcare needs.

Residential Therapeutic Farm offers

This is exactly what residential, therapeutic, rehabilitation and recovery farms are. They are specifically designed to treat the whole person with an integrated range of services.

This is exactly how such farms are staffed, and need to be staffed.

Most of the data is available *now* by drawing on U.S. experience, and the outcomes they achieve.

Exactly. That is why this response to the draft report proposes forthwith the establishment, now, of two such farms in Australia, not only as farms for service delivery, but for evaluation of the processes and protocols. Australia can move to world's best practice here. The opportunity is now.

The balance of this response provides further information on these matters.

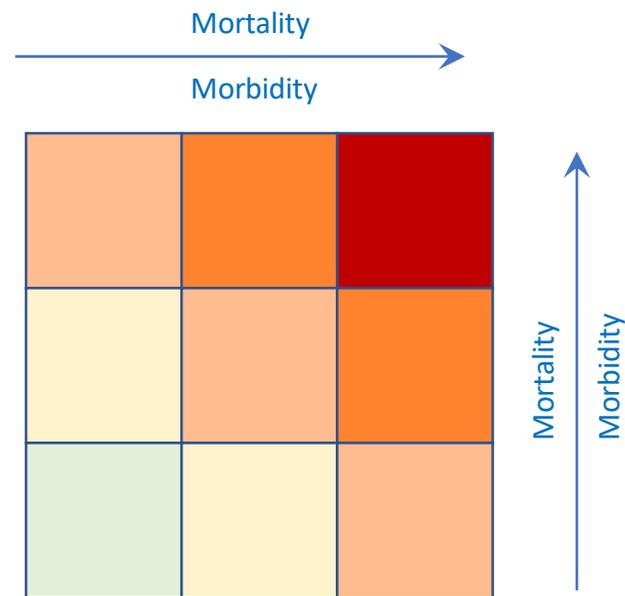
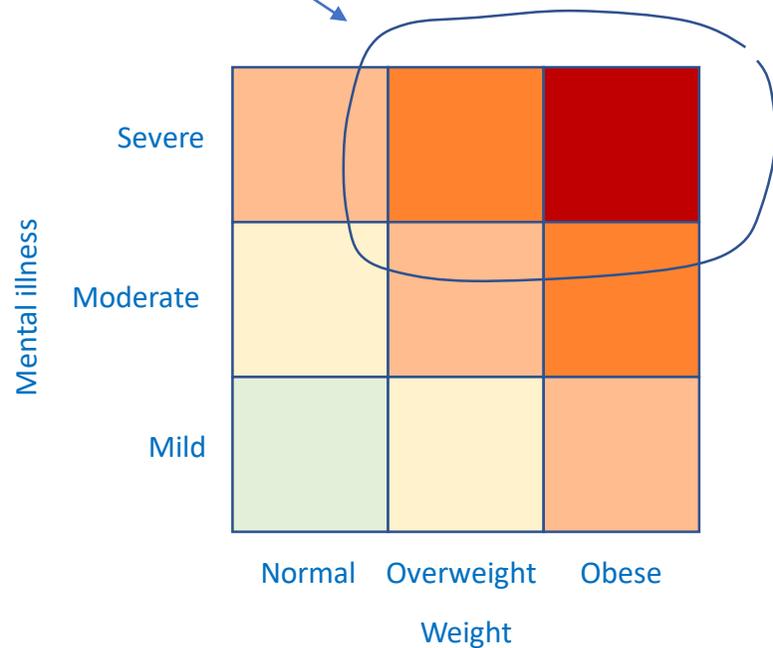


Further information:

The focus of this response:

Those with SMI and comorbid Overweight/Obesity

Response focus

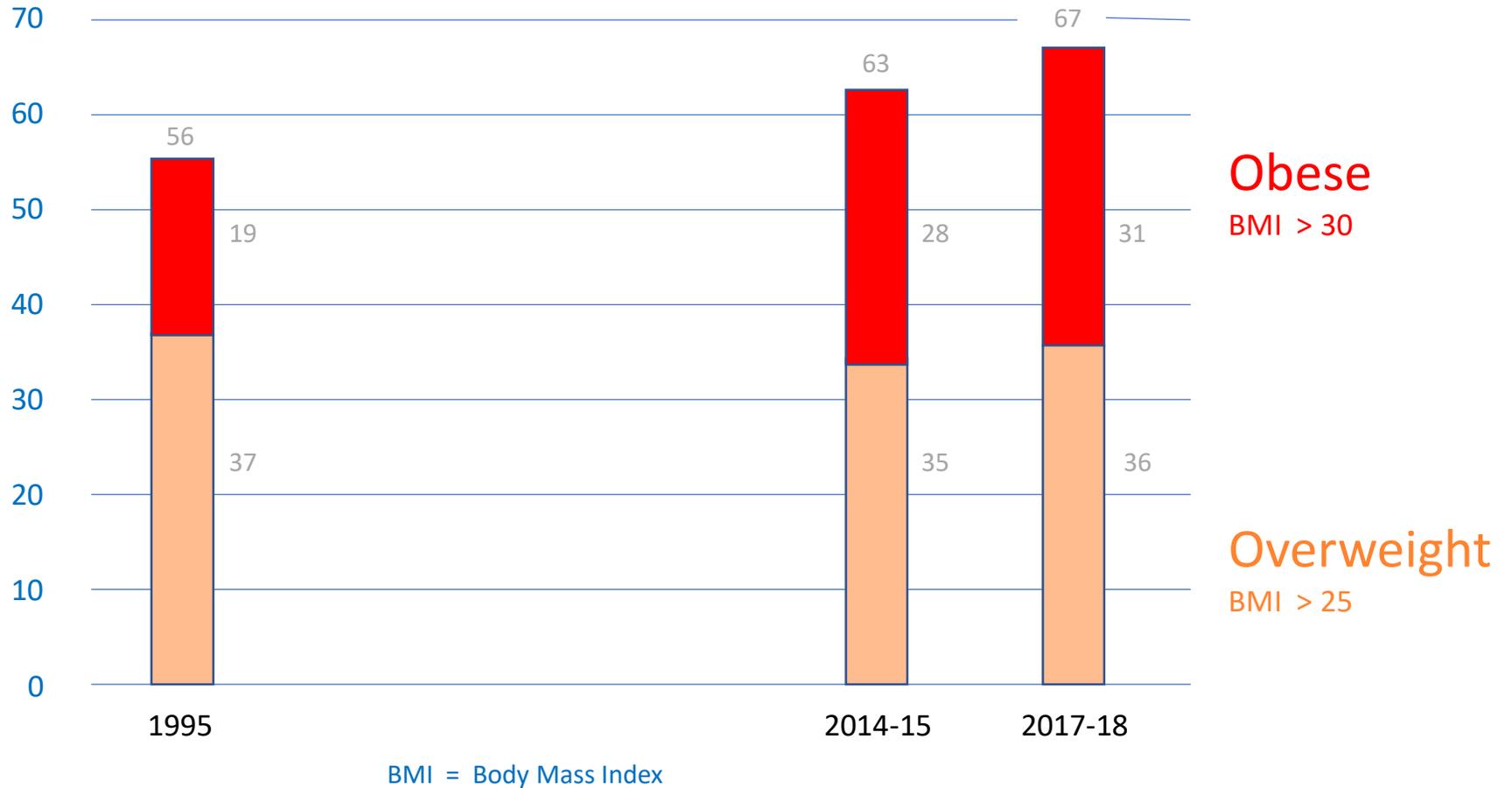


This is the group, in Australia, with greatest foreshortening of life, and greatest suffering.

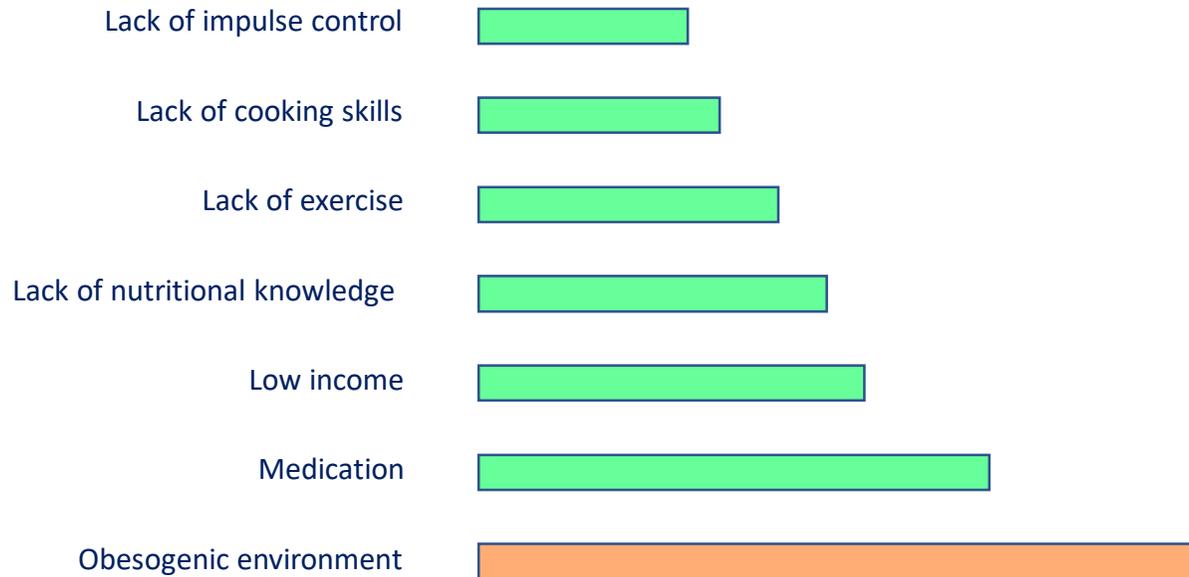
They cannot, ethically, be overlooked.

Australia's obesity epidemic

ABS statistics - Australian population %



Additional causes of overweight/obesity in those with Severe Mental Illness



An obesogenic environment is one in which there are readily available, highly advertised products including confectionery, high sugar breakfast cereals, burgers, 'fries' and high sugar soft drinks. People with severe mental illness often do not have the money, nutritional knowledge or life skills to effectively navigate this environment, so tend to make poor dietary choices.

For those with SMI, the medical/scientific literature shows high levels of obesity leading to early death:

- *Overweight and obesity are epidemic among persons with serious mental illness;*

Daumit et al 2013

- *Persons with severe mental disorders die about 10 to 20 years earlier than the general population, **mostly from preventable physical diseases**;*

WHO 2016

- *People with psychotic illness: life-expectancy is reduced:*

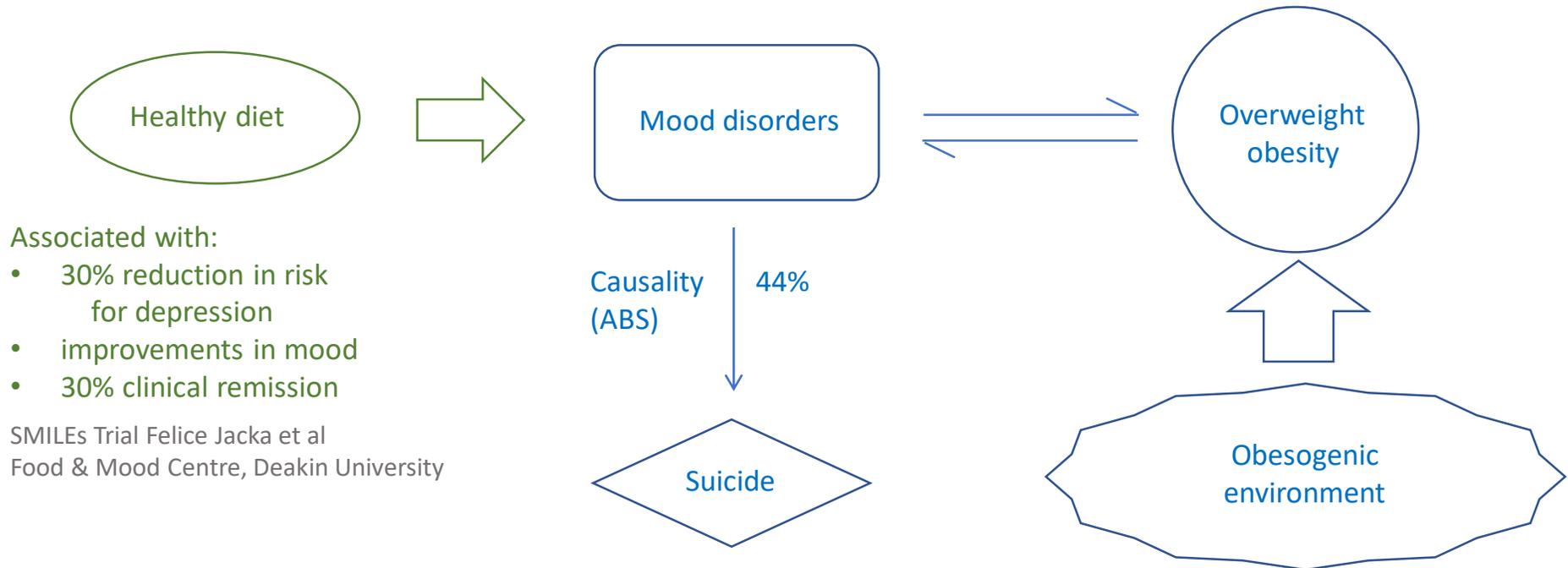
by 18.7 years on average for men, and

16.3 years for women.

SHIP Study (Australia)
2017

There is nothing to suggest that this does not apply to all forms of severe mental illness: episodic, persistent and complex needs.

Suicide reduction through change of diet



ABS statistics shows that mood disorders are the single biggest factor contributing to suicide. There is a correlation between the obesogenic environment, Overweight/Obesity and the onset of mood disorders. The work of Felice Jacka and others shows that replacing a poor diet with a healthy diet gives a 30% clinical remission of depression.

On Therapeutic Farms, not only can residents reduce their weight to a normal BMI range. They can be taught healthy cooking and eating skills, and how to safely navigate the obesogenic environment when they return home. On a widespread basis, this will lead to a reduction in depression, and consequently, suicide.

Dimensioning the problem in Australia

Estimate of the Years of Potential Life Lost (YPLL) per year for people with Severe Mental Illness and comorbid overweight/obesity

ABS: Average age of death in Australia	82
Literature: Years of life foreshortened by comorbid illness	15
Age of death for those with SMI and comorbidities	67
Number of people with SMI (Prod Comm figure)*	775,000
Assumption: Fraction with comorbid overweight/obesity	75 %
Then: Number of people with SMI and comorbid overweight/obesity = $775,000 \times 0.75 =$	581,000

Hence, for this group:

$$\text{YPLL} = 581,000 \times 15 = 8,715,000$$

This is a loss of 8.7 million years of potential life across this population.

Assumption:

$$\text{Age of illness onset} = 20$$

Then, age range of this population = $67 - 20 = 47$ years

Hence, we have 8,715,000 YPLL over 47 years

Therefore

$$\text{YPLL per year} = 8,715,000 / 47 = 185,000$$

* This is about 3% of the population. In the U.S. the figure is reported as 4.5%
<https://www.nimh.nih.gov/health/statistics/mental-illness.shtml>

Comparison with road accidents and suicides

Years of Potential Life Lost (YPLL) per year:

Severe mental illness and comorbid overweight/obesity 185,000

ABS statistics 2017

Self harm (suicide) 108,000

Road accidents 44,000

152,000

33,000

Thus, it can be seen that:

YPLL from severe mental illness and comorbid overweight/obesity

is greater than those from suicides and road accidents combined!

Why a residential, therapeutic farm?



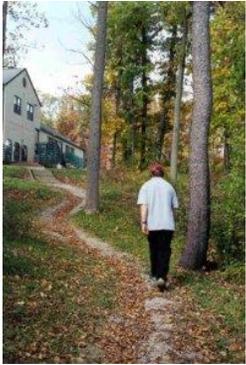
An individual comes from a hospital,
or from a stressful, obesogenic,
urban environment

To a peaceful farm setting, with a
welcoming, supportive, therapeutic,
community-based environment

Additionally, on a farm, residents are out-of-reach
of 'quick grab' fast foods and cigarettes.



Residential Therapeutic Farms, USA



Rose Hill Center,
Michigan
www.rosehillcenter.org

In the U.S. there are a number of residential, therapeutic farms operating at, or close to, world's best practice.

The writer has recently visited four of these, as shown. Their programs can be seen on their websites.

These serve as excellent models for the establishment of such farms in Australia.



Spring Lake Ranch, Vermont
www.springlakeranch.org



Hopewell, Ohio
www.hopewellcommunity.org



Gould Farm, Massachusetts
www.gouldfarm.org





A well-structured, residential, therapeutic farm offers a full range of clinical, psychosocial and community based services in a safe, supportive environment.

Residents are made to feel welcome, and given time to settle in. The farm offers structured daily activities, including rural work programs, recreation, and when residents are able, sports or social activities. The goals for residents typically are:

- 1) Personal care and safety
- 2) Symptom easement or abatement over time
- 3) Finding their sense of self, and purpose in life
- 4) Supported transition out into the external community including, as far as possible, readiness to return to work.



The purpose of the farm is to help each resident achieve their wellness goals.

These may include:

- reduction of clinical symptoms
- improved self-esteem
- improved social skills
- improved diet through improved cooking skills, and understanding of nutrition
- increased personal organisation and life skills
- loss of weight (for those overweight/obese)
- becoming a non-smoker (for smokers)
- improved overall health
- improved work readiness

The purpose is not just for residents to achieve their wellness goals; but to have these sufficiently well incorporated into their behaviour and self-image that they are able to take them forward in life on a long-term basis.



The first priority around which activities are planned relate to the running the farm itself. Residents are involved in all aspects of this on a roster basis. These are work-based programs with proven clinical benefits.

Such activities, under the supervision of team leaders, may include:

- feeding and attending to farm animals
- planting or harvesting crops
- repairing fences, or carrying out general maintenance work
- assisting the chef in the farm kitchen
- serving meals
- working in the farm laundry
- cleaning, weeding gardens and mowing lawns
- harvesting apples and making cider
- working in the woodwork shop
- working in the farm bakery

Residents may also spend time in the Art room, Music room, Weaving, or at the farm gym. The clinical program, including meetings with psychiatrists, are woven into this.



Duration and outcomes

Residents commonly stay at the farm for 3 to 18 months. Some stay longer. Duration is not based so much on policy, but on the natural healing time of each client.

The first indicator of outcomes can be seen in the lives of residents who return to their families and communities.

Beyond that, a range of measures of psychiatric and psychosocial outcomes are recorded for each client, throughout the program and after they leave. For example:

GAF	Global Assessment of Functioning
BASIS-24/32	Behaviour and Symptom Identification Scale
DLA-20	Daily Living Activities

By way of example, a resident may record the following GAF scores:

Program entry 45 Transition out 60

This does not mean that the resident is 'cured'; but his/her functioning, sociability, sense of well-being and employability are all significantly improved.

Gould Farm Outcomes

(Website)



Gould Farm has been collecting data on the well-being of residents and evaluating the work done since 1998. Using standard psychiatric measurement tools like the Global Assessment of Functioning (GAF) and Basis-24, we gather information on current residents and those who have left Gould Farm for a period up to 36 months after treatment. Measurable improvements are experienced by most residents as they move through the program and after they leave. The observed improvements for residents after discharge include:

- Reduction in negative psychiatric symptoms
- An improvement in social functioning
- Greater readiness for community reintegration.

Preliminary research into longer term outcomes indicate successful integration of guests into their homes and families, securing employment, advancing their education, and building new social relationships.

- Those living in private residences increased from 35% at departure to 63% at 18 months*;
- Paid employment went from 14% at departure to 81% at 18 months*.

**From the 2015 Gould Farm Outcomes Report*

Restart Farm

Restart Health Services is in the process of setting up a charity through which to establish what is intended to be Australia's first Residential Therapeutic Farm. By 28 February, details will be available at www.restart.org.au

Benefits to residents which may include:

physical and mental health benefits; increased longevity; improved self-esteem, social skills, general life functioning, and employability.

Benefits to society which may include:

reduction in suicides; reduction in the number of people who are marginalised, or sleeping rough; increase in the number of people who are coping with life rather than needing extensive support; increased employability of people who otherwise may not have been able to hold down a job.

Benefits to the health system:

reduction in acute hospitalisations for mental or physical health emergencies; reduction of the incidence of chronic illnesses such as Type 2 diabetes.

Financial benefits:

substantial savings on acute and non-acute hospital and medical care that otherwise would have arisen due to psychiatric issues, or the range of major physical illness arising from overweight and obesity; for those who gain employment: savings on pension benefits that otherwise may have been paid; the gaining of income tax revenue from those who gain employment; the generation of economic activity in the area in which the farm is located.

Benefits to Australia:

whereby Australia moves from being a laggard in the treatment of such people to a country offering world's best practice.

Restart Farm Estimates

(For a Facility of 80 Residents)

Capital costs \$

Buy land	2,000,000
Building construction	20,000,000
Initial staffing, establishment of systems, and training	<u>3,000,000</u>
	25,000,000

Operating costs \$

For the safety and well-being of residents, the farm must operate 24/7/365.

This means, in practice, staff : resident ratios may be close to 1 : 1.

Accordingly, the largest budgetary cost item, by some distance, is staff salaries,

Hence, annual operating budget per resident per year (approx.) 100,000

Total operating cost per year 8,000,000

It is said that a human life has an economic value of \$4million. An investment of just \$100,000 for a person with SMI/OW/OB to spend a year in a residential therapeutic farm offers the following potential benefits:

For the person: improvements in mental health, social and living skills of around 25+%; weight reduction to a healthy BMI range; substantially improved fitness and physical health; improved quality of life and longevity. Increased employability.

Economic benefits: reduction of acute hospitalisations for mental illness; substantially reduced risks of, and costs of treatment for type 2 diabetes, metabolic syndrome, cardiovascular disease and some cancers. Greater employability.