



**SINGAPORE ACTUARIAL CONFERENCE 2024**  
26 - 29 August 2024

# **Keeping It Real :**

## Sustainability and Relevance in Mental Illness Coverage

**Presented By,**

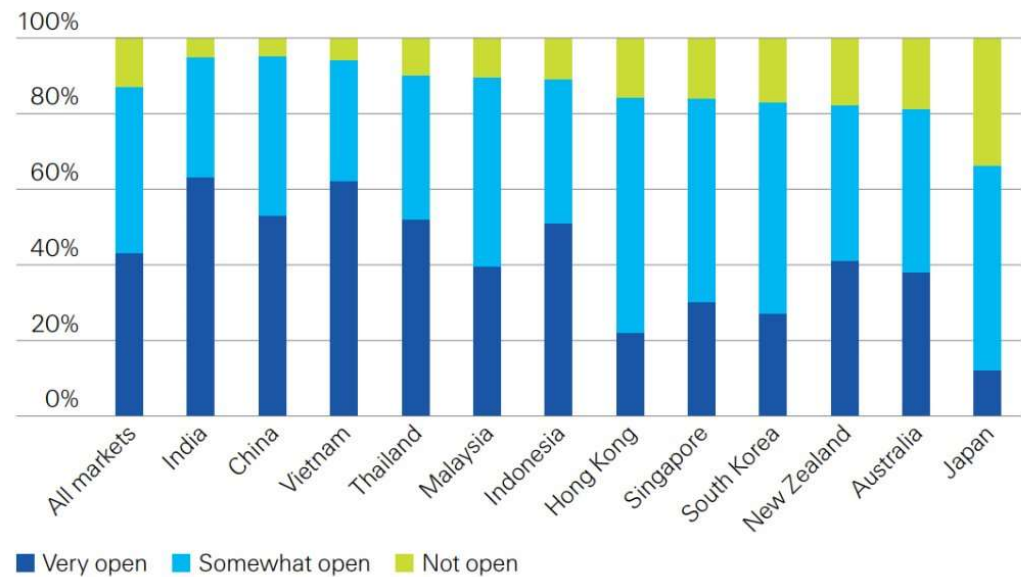
Dr Kent Chong FALU FLHC MBBS

Regional Medical Officer APAC

Swiss Re

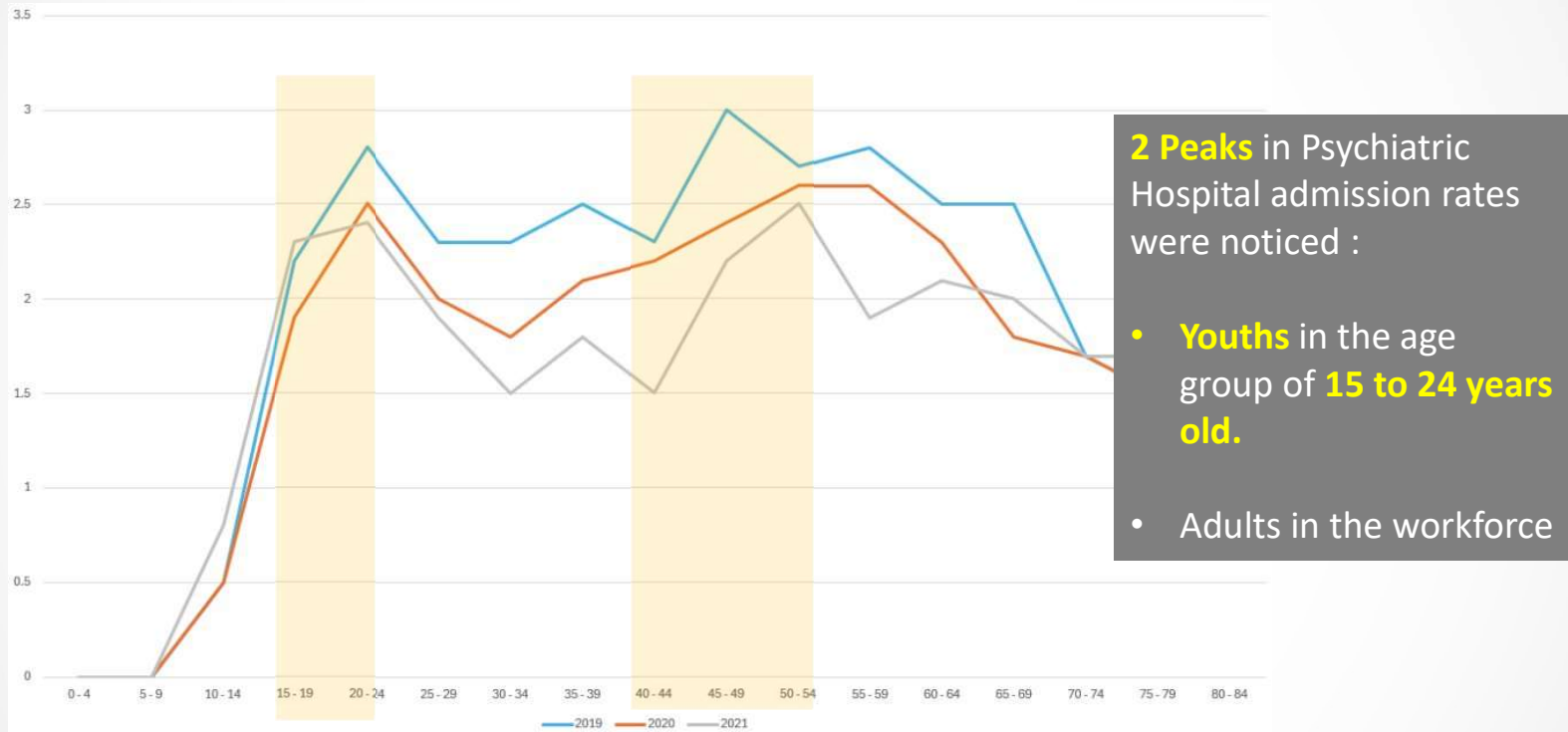
## Post COVID-19 : Rising Demand in Mental Illness Coverage

- Since late 2020, Swiss Re published several mental health-dedicated research reports.
- These reports show that insurance for mental health conditions is an under-developed segment.
- In our 2021 survey, **87% of respondents across APAC** showed some openness towards mental illness coverage.
- Across all markets, younger generations and higher earners appear more open.



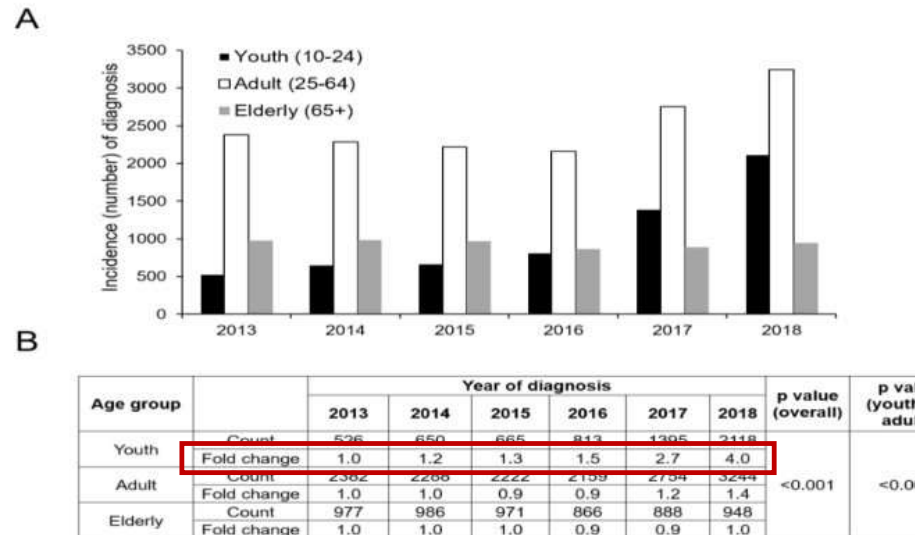
Source: Swiss Re Institute

## Psychiatric Hospital Admission Rates in Singapore



Source : Ministry of Health, Hospital Admission Rates By Age and Sex 2019, 2020 and 2021 – Psychiatric Hospitals.

## 6-Year Trend of Youth Depression in Singapore



- **More rapid increase** in depression diagnosis in **youth** compared to adults.
- Mean age of diagnosis became **younger**.
- Larger increase in depression diagnosis in **females**.

**Figure 1: (A) Incidence of depression among youth, adult and elderly (2013 to 2018). (B) the fold change of depression incidence gradually increased to 4.0 for the youths, 1.4 for the adults and remained at 1.0 for the elderly patients in 2018**

## Mental Cover : Available Products

Lump Sum  
Payment – TPD,  
'Special' CI etc.

Income  
Replacement –  
Mainly DI

Reimbursement  
of Medical  
Expenses

**01**

# Key Challenges : Mental Illness Coverage





**CNA**

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1w • 

You have a diagnosed mental health condition - should you disclose it to your workplace? Would this affect your performance and how your colleagues view you?

**Would you declare your mental health condition at work?**

The author can see how you vote. [Learn more](#)

Yes, I believe in transparency  36%

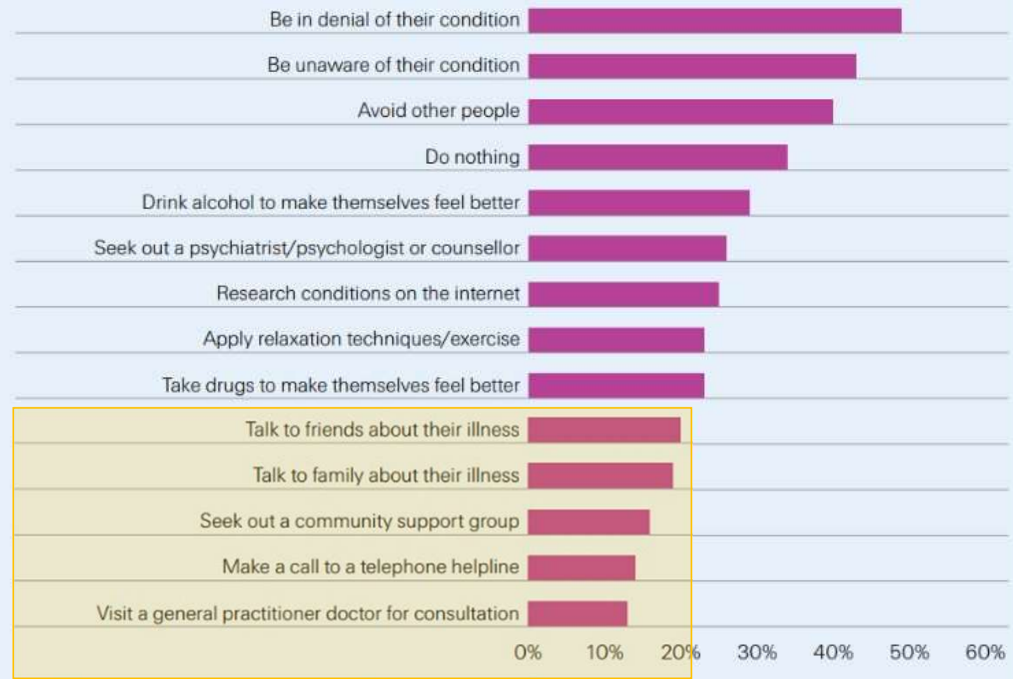
No, I'll be stigmatised 64%

930 votes • Poll closed • [Remove vote](#)

How about in **actual**  
insurance application?

**Figure 4**

Singaporeans' expected responses to suffering from mental illness



**Barriers to speak about  
Mental Illness is common...**

Note: Survey respondent can select multiple choices.  
Source: Swiss Re Institute





## Moral & Ethics

- Higher moral hazards
- Cultural taboo leads to lower awareness
- Fear of disclosure



## What appeared in the media...



Singapore

MPs stress need for better insurance coverage for mental health conditions, regulation of professionals

Dr Tan Wu Meng (PAP-Jurong) pointed out “the sense of fear and anxiety” of being denied insurance upon getting diagnosed with a mental health condition.

All efforts to improve mental health are at risk of “not coming to their full potential” or “being undermined”, he stressed, “so long as this issue of the private insurance market is not addressed”.

“Given that the majority of insurance policies are still sold through banks or agents, this may be a difficult topic for intermediaries to raise and also for the clients to acknowledge to them issues they may have.”



## Reliance on Self-Reporting

- Less objective assessment
- Diagnostic criteria easily available online
- Influence of financial incentives



## Extract from Diagnostic Manual for Major Depressive Disorder (MDD)

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

**Note:** Do not include symptoms that are clearly attributable to another medical condition.

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (**Note:** In children and adolescents, can be irritable mood.)
2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).

Can one **objectively adjudicate** this during claims?



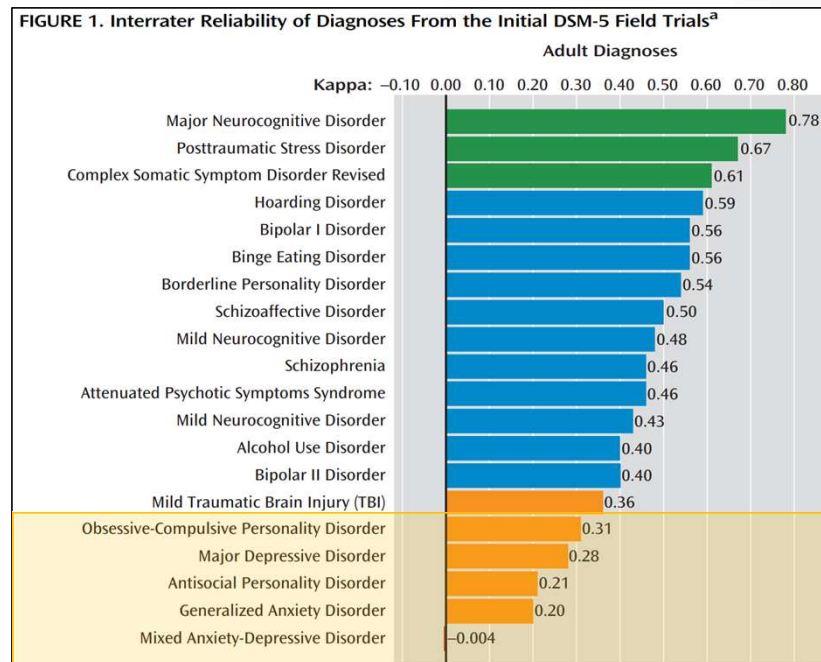
## Disagreements in Diagnosis

- Interrater reliability of certain diagnosis between psychiatrists is still being debated.
- Prominent diagnosis with interrater reliability issues – MDD, GAD, OCPD etc.

■ Very good agreement    ■ Questionable agreement  
■ Good agreement        ■ Unacceptable agreement



## Disagreements in Diagnosis



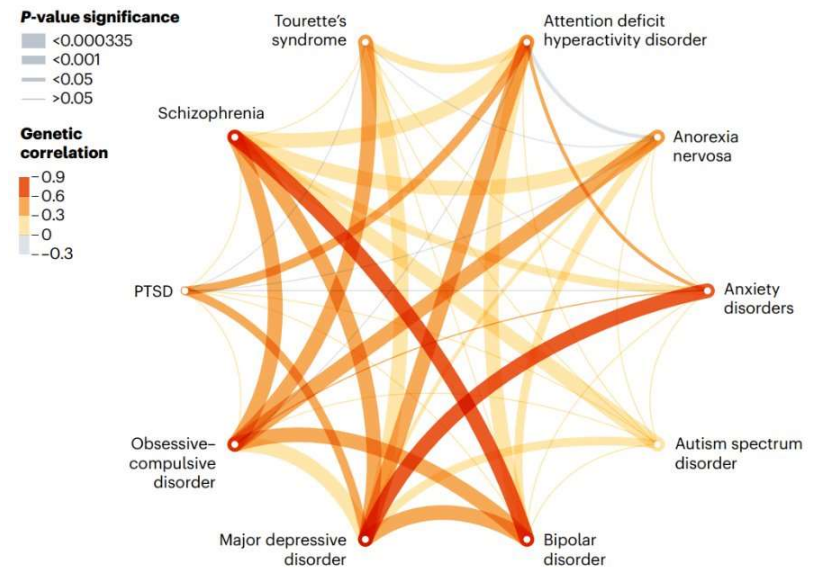
The initial field trials of DSM-5: new blooms and old thorns. *Am J Psychiatry* 170:1, January 2013



## Psychiatric Comorbidities

- Common for one to have multiple mental illnesses
- Mental illnesses are bi-directional
- Diagnosis may change over time

► Comorbidities are the 'Rule' rather than the 'Exception'



The hidden links between mental disorders. *Nature*, Vol 581, 7 May 2020.



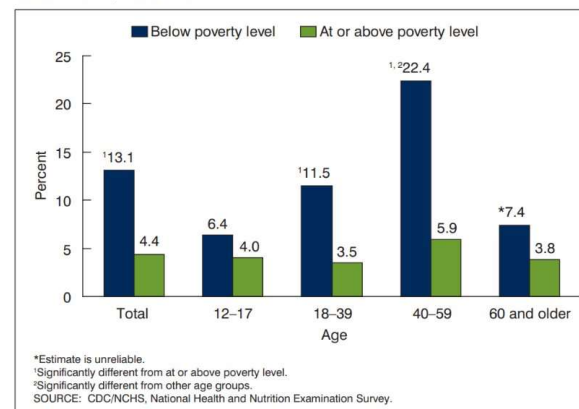
## Lack of experience data

- High level of data heterogeneity
- Many assumptions need to be made
- Resulting in pricing uncertainty



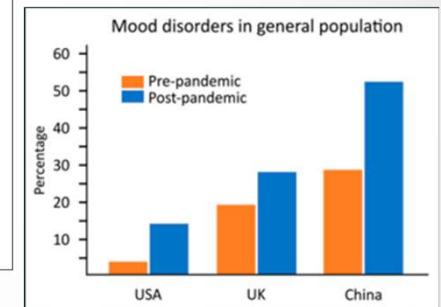
## Multitude of risk factors could affect incidence

Figure 2. Percentage of persons with depression by age and poverty status: United States, 2005–2006



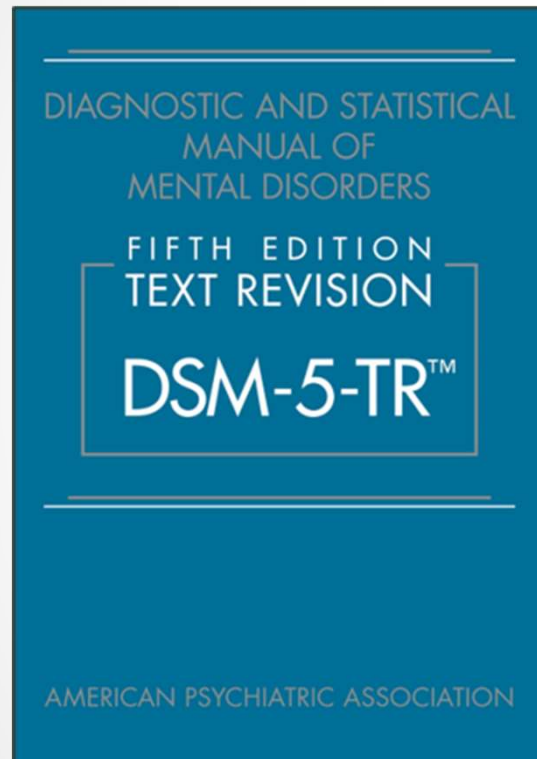
Depression in the United States Household Population, 2005 – 2006. NHCS Data Brief No. 7, September 2008

Other Factors : Education level, Societal, Cultural



Impact of COVID-19 Confinement on Mental Health in Youth and Vulnerable Populations: An Extensive Narrative Review. *Sustainability* 2023, 15, 3087.

## The Diagnostic Manual – DSM



- DSM is the “**Bible of Psychiatry**”.
- American Psychiatric Association (APA) is responsible for writing, editing, reviewing and publishing this manual.
- Each update in DSM Version will involve :
  - Nomenclature changes in mental illnesses
  - Scope and criteria of diagnosis
  - Addition of new diagnoses
- Current version : **DSM-5-TR** published in March 2022.

## Significant Increased in Number of Diagnoses

**Table 1** Description of the editions of the *Diagnostic and Statistical Manual of Mental Disorders*

Edition	Publication date	Number of pages	Number of diagnoses	Revenue for the American Psychiatric Association
DSM-I	1952	132	128	Unknown
DSM-II	1968	119	193	\$1.27 million
DSM-III	1980	494	228	\$9.33 million
DSM-III-R	1987	567	253	\$16.65 million
DSM-IV	1994	886	383	\$120 million
DSM-IV-TR	2000	943	383	Unknown
DSM-5	2013	947	541	Unknown

The Cycle of Classification : DSM-I Through DSM-5. *Annu Rev Clin Psychol.* 2014;10:25-51.

The number of diagnoses **increased over 300%** from DSM-I to DSM-5

## DSM Changes in Major Depressive Disorder (MDD)

### DSM-3

- Mild MDD - 5 or 6 symptoms of mild severity
- Moderate MDD - 7 to 8 symptoms with moderate impairment
- Severe MDD - 6 or more symptoms of severe impairment or psychotic features and strong suicidal intent

### DSM-4

- Similar Classification System as per DSM-III

### DSM-5

- **Allows grief reaction (bereavement) to be classified as MDD after 2 weeks**

<https://www.bmj.com/bmj/section-pdf/750417?path=/bmj/347/7937/Analysis.full.pdf>

**Diagnostic Threshold reduced over time**

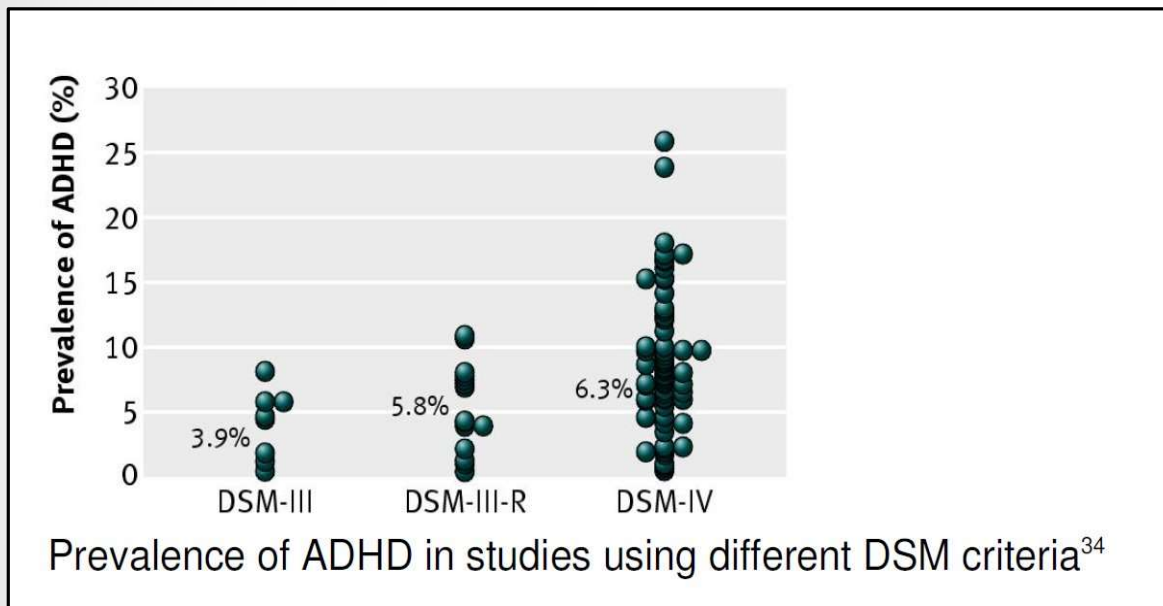
**Concerns :** Turning grief and other life stressors into mental disorders.

Represents medical intrusion on person emotions.

Adds unnecessary medication and cost and distracts attention and resources from those who really need them.



## ADHD Prevalence with Serial DSM Version Updates



Attention-deficit/hyperactivity disorder: are we helping or harming. *BMJ* 2013;347:f6172

**Concerns : Overdiagnosis and Overtreatment**, Normal Pubertal behaviours being confused with ADHD etc.

- DSM-5 extended the age of diagnosis from **7 to 12**.
- DSM-5 officially recognized **Adult ADHD**.
- Adult ADHD has a **lower** diagnostic threshold compared to children.

# What We Heard From Mental Health Experts

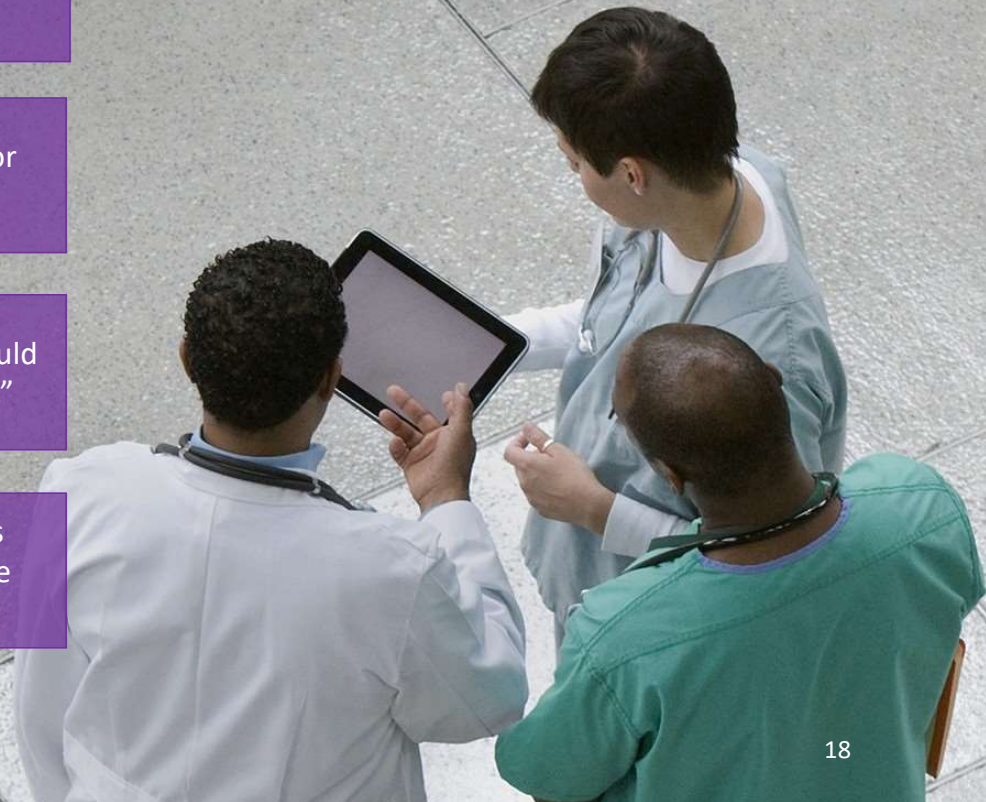
## Swiss Re's Interview with Psychiatrists from APAC Region

"Mental Illness has **no objective tests to confirm a diagnosis**. We generally assume what patient says is the truth"

"**About 1 in 15 or 1 in 20 cases**, there will be **uncertainty in diagnosis**. For such cases, psychiatrists will sit together to tap everyone's brain."

"It is very hard for us to tell whether the severity of a **borderline case** could be **exaggerated intentionally** as we would be cautious to question them."

"Some private insurance product **pay a lump sum** when insured qualifies **for mental disability**, but this will **give incentive (gain from illness)** to the patient. **I am against such products** from a clinical point of view."



# 02

## Funding Mechanism : Mental Illness Coverage



## Which funding mechanism optimally balances risk and needs?

### Lump Sum Payment

X% sum assured payout (with dollar cap) on certain mental illnesses such as :

- Schizophrenia
- Major Depressive Disorder
- Bipolar Disorder
- Obsessive Compulsive Disorder etc.

### Income Replacement

Replace X% of pre-mental disability earned income.

Monthly payment continues if one could not return to work (RTW).

Periodic assessment is performed to examine one's ability to RTW.

### Reimbursement of Medical Expenses

Reimbursement of incurred medical expenses which include :

- Psychiatric consultation
- Psychotherapy
- Medication and Rehab
- Hospitalization support
- Other Mental Health support services

**Which funding mechanism optimally balances risk and needs for  
Mental Illness Coverage? Cast Your Vote in Slido...**

Lump Sum Payment

Income Replacement

Reimbursement of  
Medical Expenses



slido

Please download and install the Slido app on all computers you use

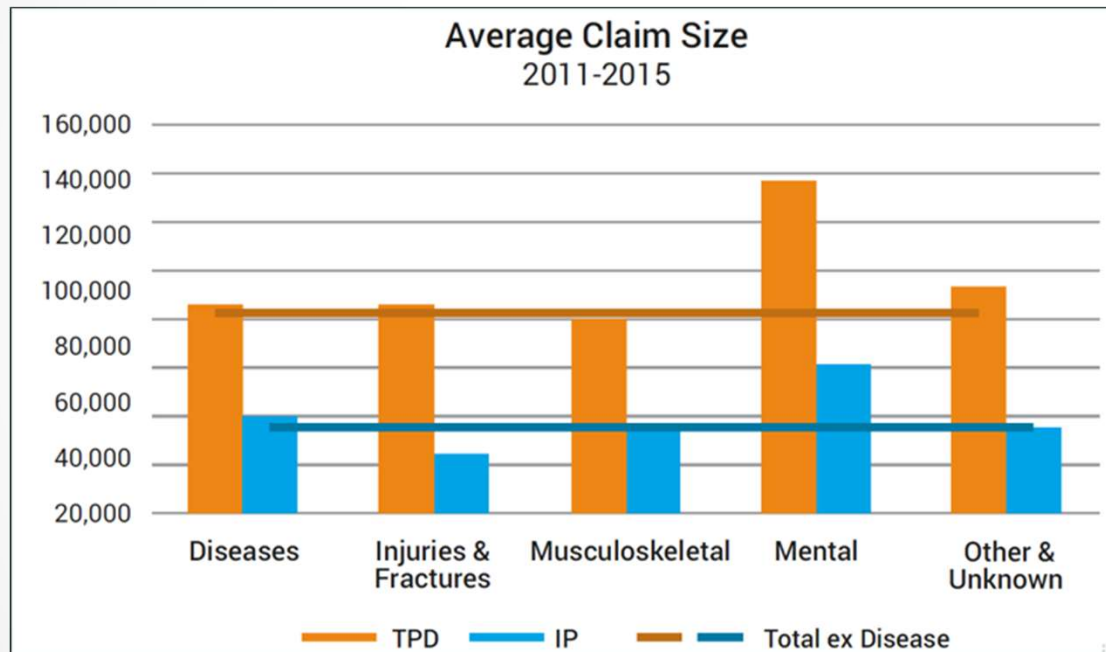


## Which funding mechanism optimally balances risk and needs for Mental Illness Coverage?

① Start presenting to display the poll results on this slide.

## Average Claim Size – TPD and IP

Experience from one Major Group Insurer in Australia



<https://actuaries.asn.au/Library/Miscellaneous/2017/GPMENTALHEALTHWEBRCopy.pdf>

- For TPD, the average amount paid for mental health claims is almost **65%** higher than other claim cause.
- Likewise for IP, mental health claims are **70%** larger than other claim cause.

## TPD and Permanency

A Survey done on 330 TPD recipients in 2015

- Sunsuper (now known as Australian Retirement Trust) measured the extent to which severe disablement is not permanent.
- Sunsuper quizzed 330 TPD claimants aged 41-60 years old 5 years after their claims had been paid.
- Sunsuper discovers **TPD is not permanent for one third of claimants.**

19% found  
part-time  
work

14% were  
looking for  
work

66% wanted  
assistance in  
finding a  
new job

Among those  
RTW, 82%  
had done so  
in 2-3 years



## Does The Prospect of Financial Compensation Influence Outcome?

Financial compensation seekers have worse outcome than non-seekers<sup>1</sup>

Financially compensated individuals have higher rates of depression, anxiety, PTSD<sup>2</sup>

Financial compensation seekers have poorer mental health<sup>1</sup>

### Possible Explanations



#### Secondary Gain

The delay of recovery, consciously or subconsciously due to the availability of financial incentives.

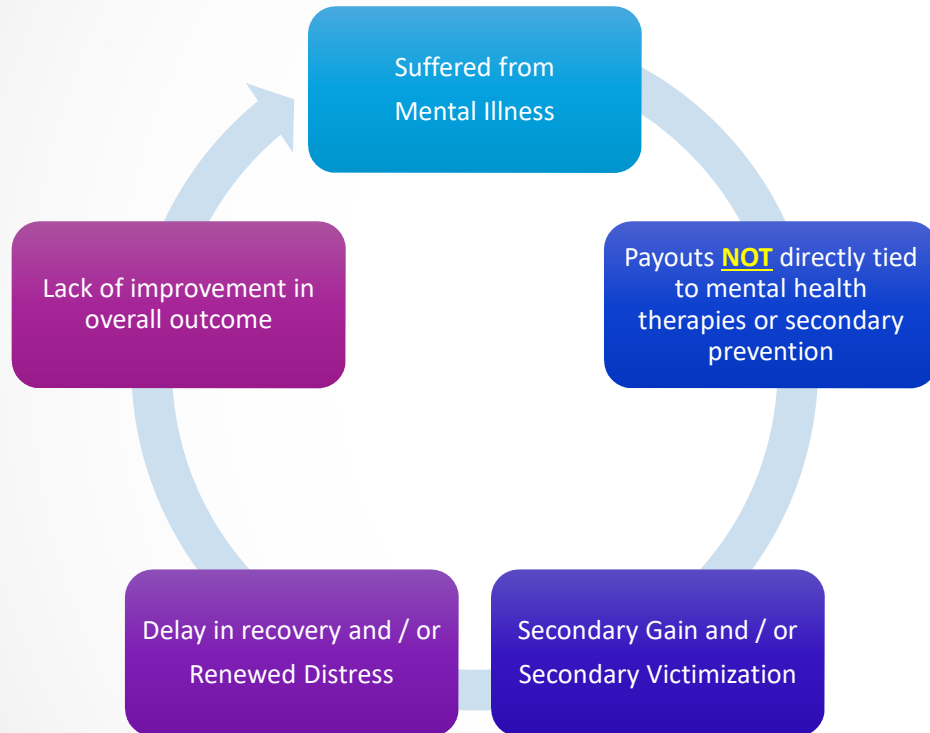


#### Secondary Victimization

Complex compensation processes induces added stress, leading to renewed distress for victims.

1. Elbers, N, Hulst, L, Cuijpers, P, Akkermans, A & Bruinvels, D 2013, *Do compensation processes impair mental health? A Meta-analysis*, *Injury*, vol. 41, no. 5, pp. 674 – 683.
2. Murgatroyd, D, Casey, P, Cameron, I & Harris, I 2015, *The Effects of Financial Compensation on Health Outcomes Following Musculoskeletal Injury : Systemic Review*, *PLOS ONE*, vol. 10, no. 2.

## Supporting Recovery and Not Dependency



- Lump sum payment of listed mental illness
- Disability Income-based benefits

How do we break this **vicious cycle**?

## Funding Mechanism May Drives Different Outcomes

**Relevance**



### Lump Sum Payment

- Restricted flexibility of payout
- Does not support overall mental illness journey

**Behaviours Driven**



- May potentially encourage unintended negative behaviours or health outcomes

### Income Replacement

- Supports overall mental illness journey
- Payout not tied to mental therapies

- May potentially encourage unintended negative behaviours or health outcomes

### Medical Expense Reimbursement

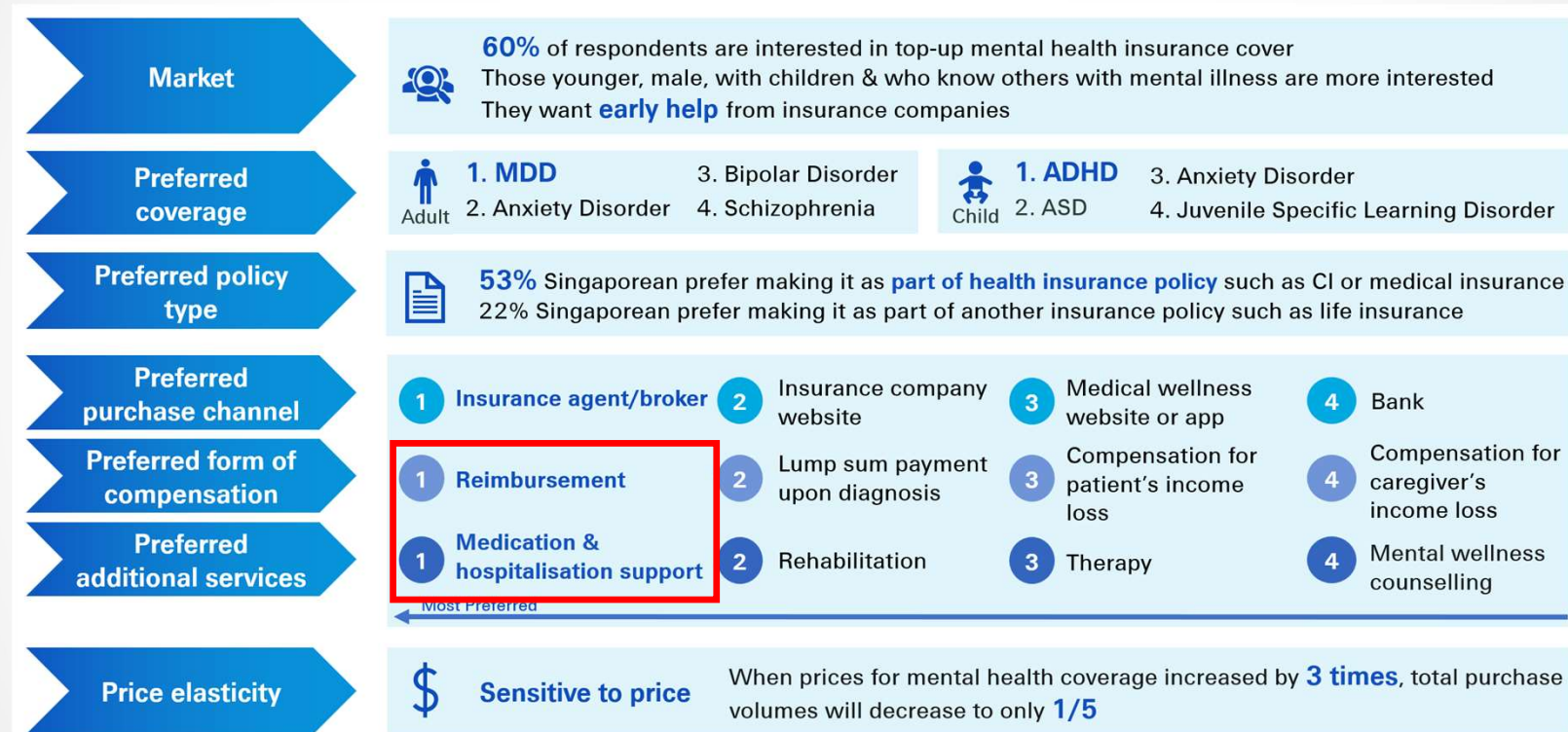
- Supports overall mental illness journey
- Benefit payout tied to incurred expenses of mental therapies
- Promotes early intervention and active seeking of treatment

# 03

## Summary of Swiss Re's Consumer Survey Findings : Singapore



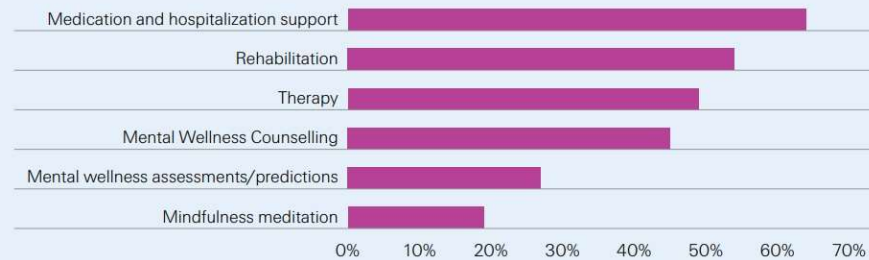
## Singapore Mental Health Research : Key Findings



## Singapore Mental Health Research : Key Findings

**Figure 7**

Preference for additional service from insurers

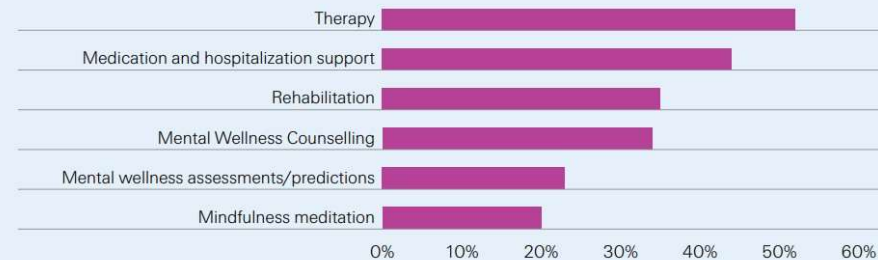


Note: Survey respondent can select multiple choices.

Source: Swiss Re Institute

**Figure 10**

Preference for additional service from insurers for children

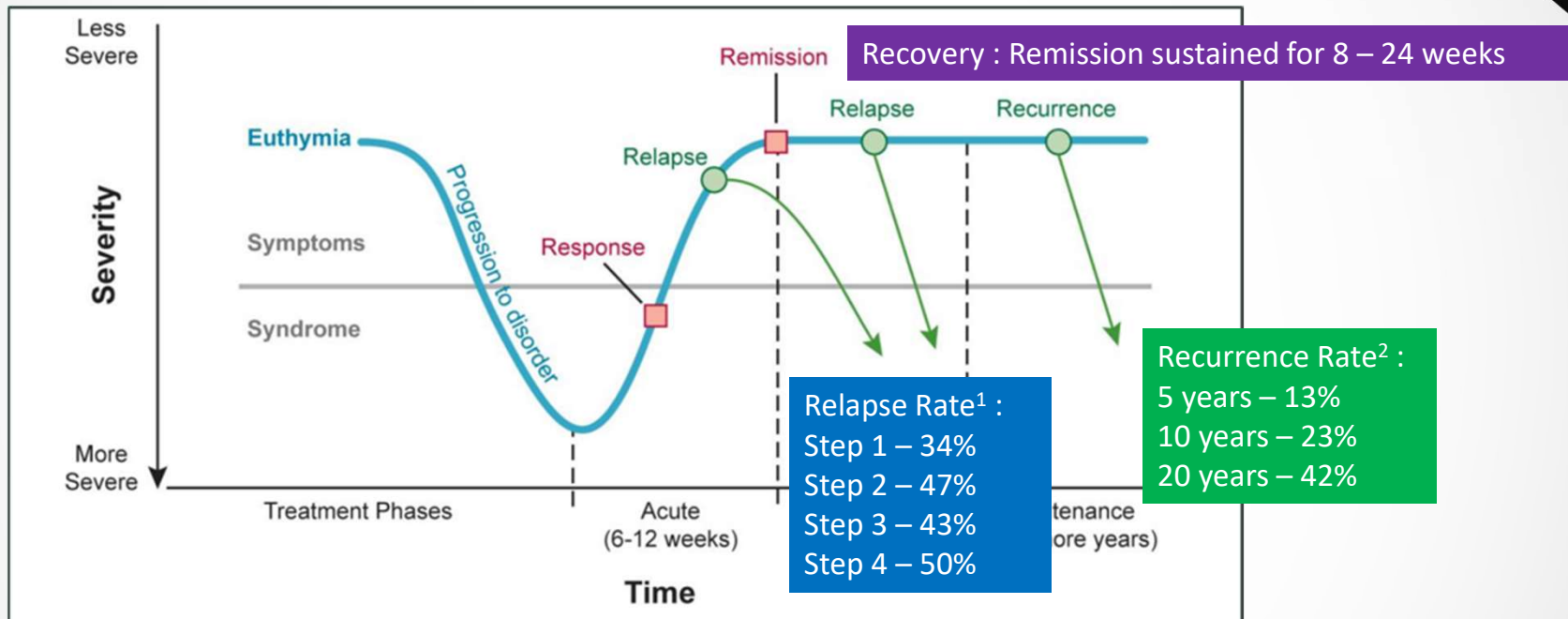


Note: Survey respondent can select multiple choices

Source: Swiss Re Institute

Areas where  
**reimbursement of  
medical expenses** could  
bridge these gap

## Major Depressive Disorder – The Patient Journey



New standard of depression treatment: remission and full recovery. *J Clin Psychiatry* 2001, 62(Suppl 26):5-9

Reference :

1. Acute and longer-term outcomes in depressed outpatients requiring one or several treatment steps: a STAR\*D report. *Am J Psychiatry*. 2006;163(11):1905
2. Recurrence of major depressive disorder and its predictors in the general population: results from the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Psychol Med*. 2013;43(1):39.

## Autism Spectrum Disorder : Multi-Disciplinary Care Needed

### Goals of Treatment

Maximizing functioning

Moving the child towards independence

Improve quality of life

- Improve social functioning and play skills
- Improve communication skills
- Improve adaptive skills
- Decrease non-functional or negative behaviours
- Promote academic functioning and cognition



### Involvement of Multidisciplinary Team

Audiologist

Developmental paediatrician, child neurologist, physician

Geneticist and genetic counsellor

Occupational therapist

Psychiatrist

Psychologist

Social worker

Speech-language pathologist



### Treatment Setting

Early Intervention Program

School-based special education program

Private Therapist

- ASD treatment is individualized depending upon the specific strengths, weakness, and needs of the child and family.
- The therapeutic need changes due to evolving developmental tasks and societal expectation at different life stages.



# 04

## Key Takeaways



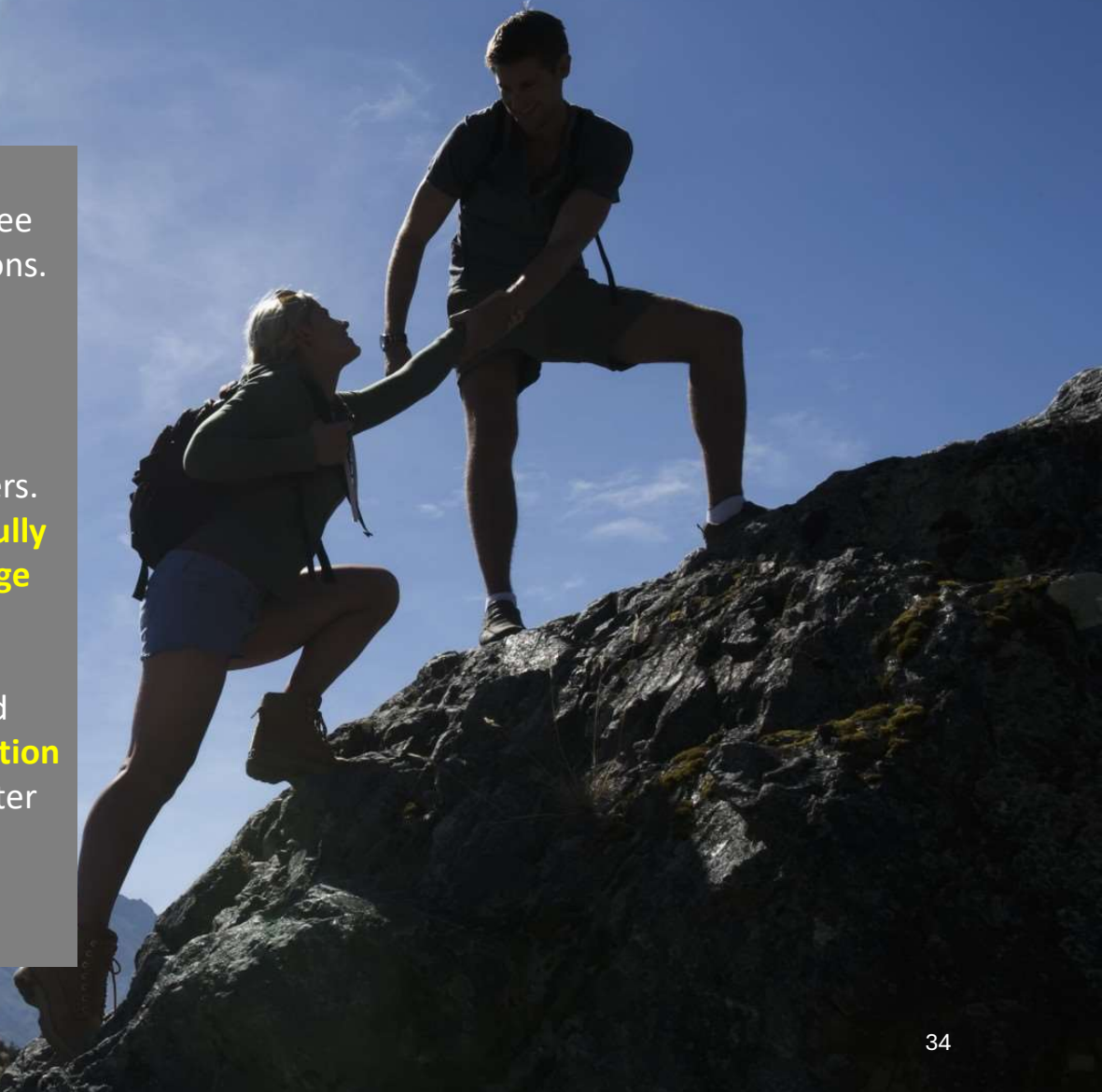
## Key Takeaways

From diagnosis to determining severity of Mental Illness, it is **highly subjective** with significant degree of symptom overlap in between different conditions.

The determinants of clinical severity is **more individualized** compared to physical conditions.

**Funding mechanism** in mental illness cover matters. Lump sum or income replacement is **unlikely to fully meet** the true consumer needs and **may encourage undesired behaviour** or health outcomes.

Reimbursement of incurred medical expenses and mental health services **encourages early intervention** and **active seeking of treatment** and serve to better balance between risk and needs.



Any  
questions?





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# Thank you!



**Kent Chong**

Direct: +65 6232 3360

Email: [Kent\\_Chong@swissre.com](mailto:Kent_Chong@swissre.com)