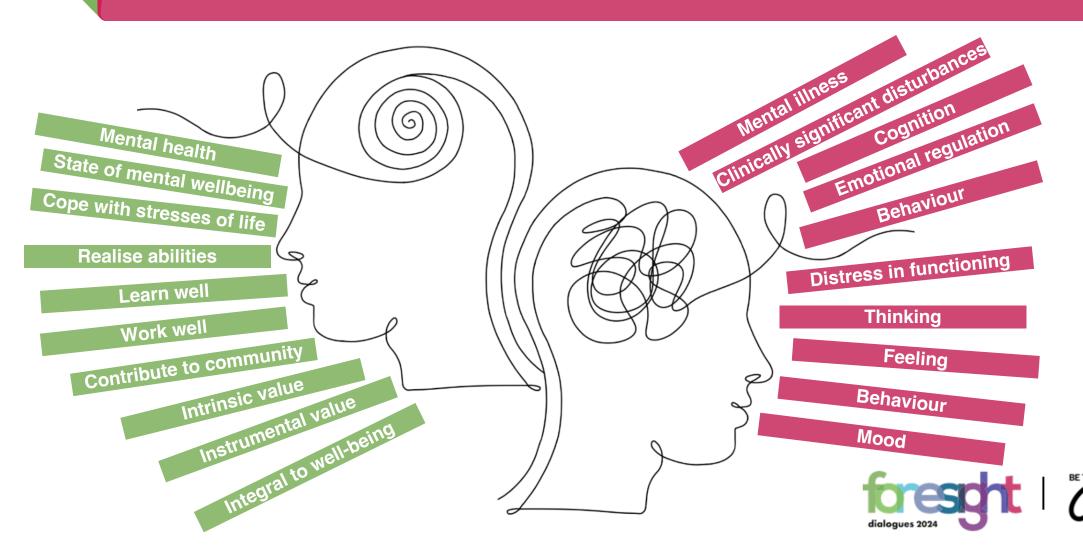


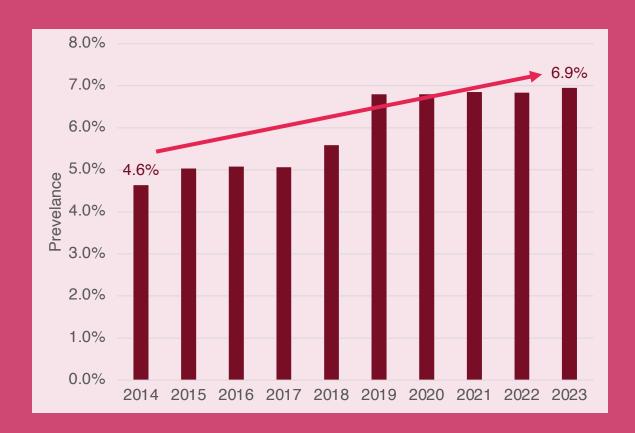




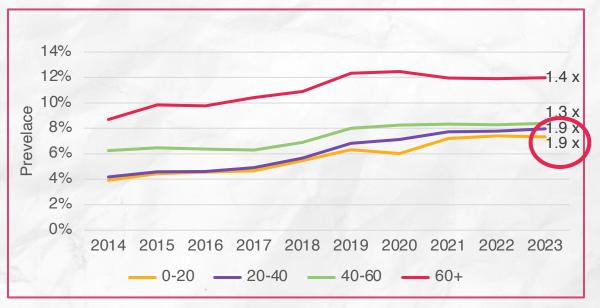
## Mental Health vs Mental Illness

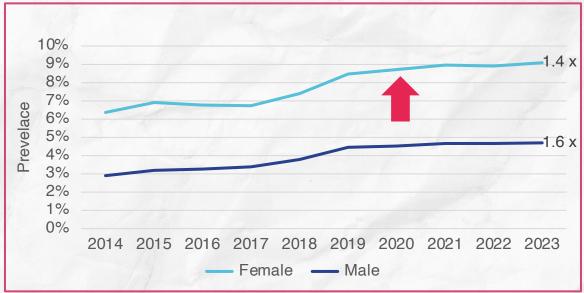


## **Depression**









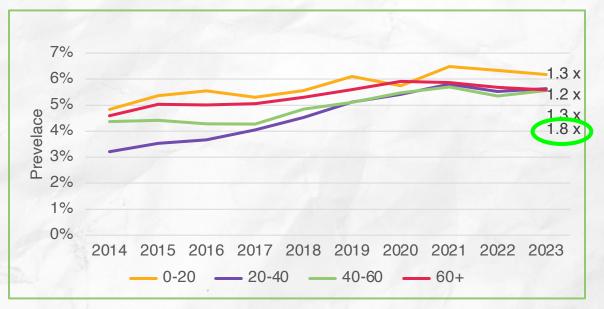


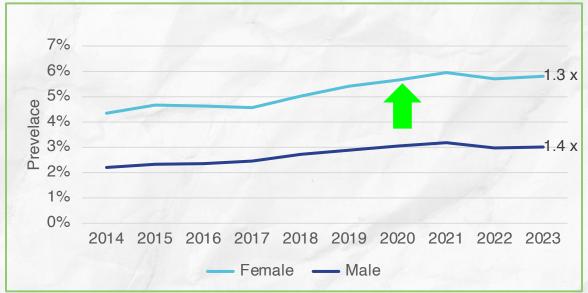


# **Anxiety**





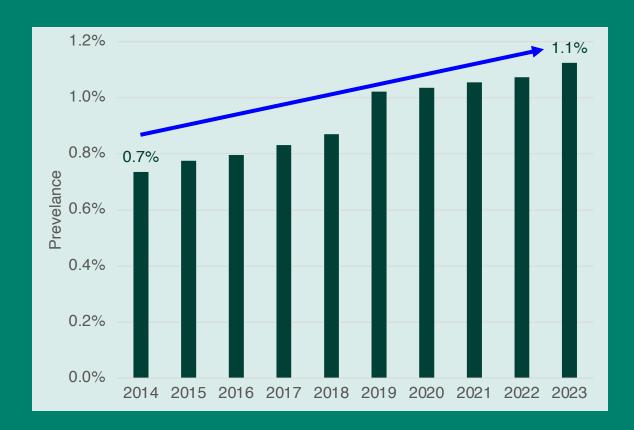


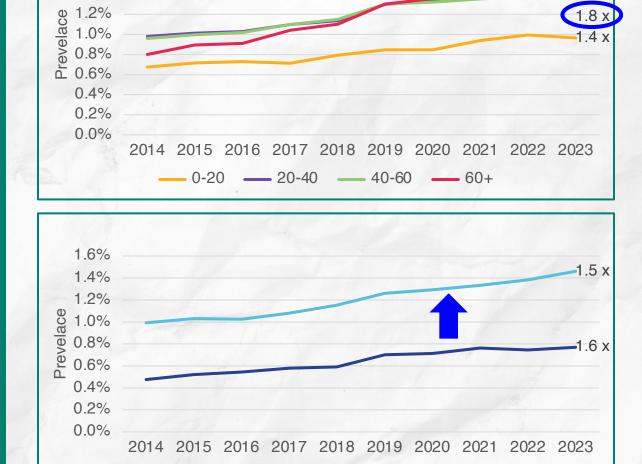






# **Bipolar**





1.8%

1.6% 1.4%

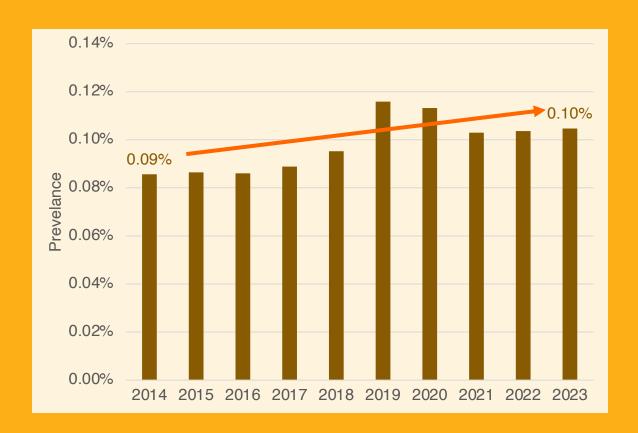




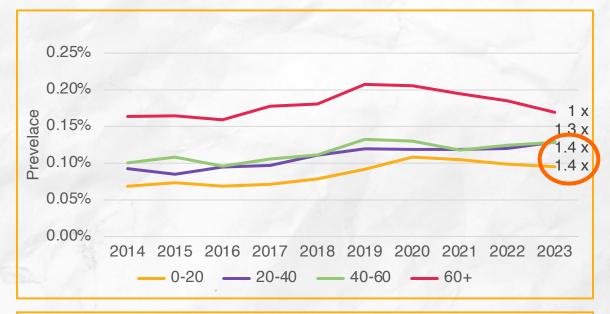
Female — Male

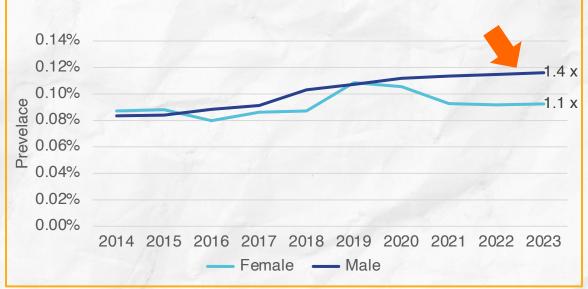


# Schizophrenia













## **Chronic Diseases**

**Chronic disease** 

Not passed from person to person

Long duration

Slow progression

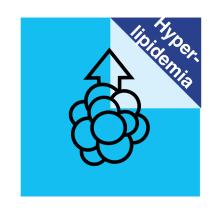
Genetics

Physiological

**Environmental** 

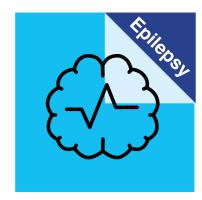
Behavioural









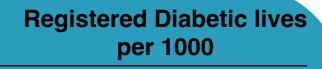






# Diabetes: Type 1 and Type 2





**2022 2023** % Change 3.12 3.09 -1.13%

Registered Diabetic lives per 1000

2022	2023	% Change
51.30	52.62	2.57%

Type 1
Diabetes

All cause admission rate

2022	2023
61.54%	61.17%

All cause admission rate

2022	2023
47.74%	48.89%





Type 2

**Diabetes** 

# Hypertension











# Registered Hypertension lives per 1000

2022	2023	% Change
161.18	162.56	0.86%

Registered Hyperlipidemia lives per 1000

2022	2023	% Change
99.26	100.08	0.83%

Hypertension

All cause admission rate

2022	2023
42.61%	43.55%

All cause admission rate

2022	2023
49.66%	50.71%

Hyperlipidemia





# **Epilepsy and HIV**





2022	2023	% Change
10.22	9.98	-2.35%

Registered HIV lives per 1000

2022	2023	% Change
43.40	43.98	1.34%

**Epilepsy** 

All cause admission rate

2022	2023
59.86%	63.39%

All cause admission rate

2022	2023
19.08%	19.92%

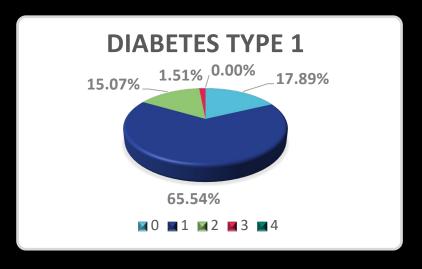


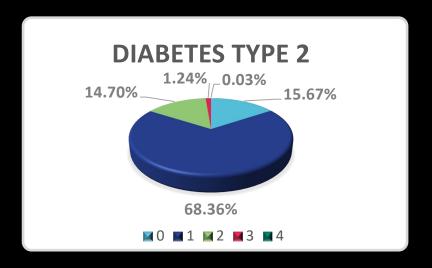


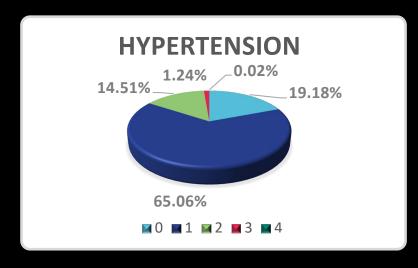
HIV

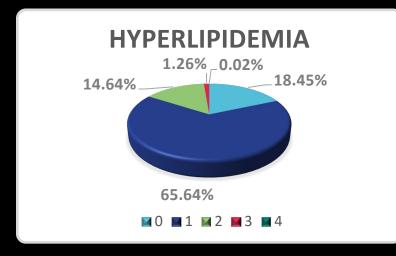


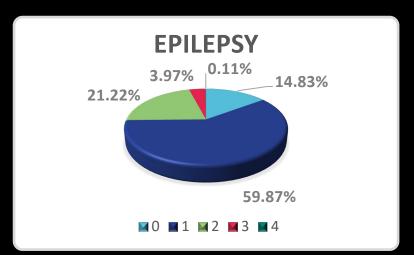
## How many mental health conditions do chronic lives have?

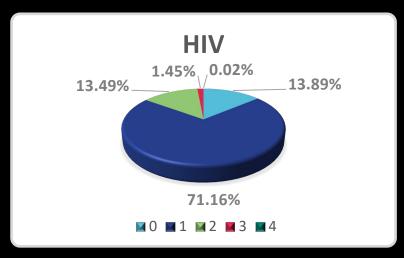






















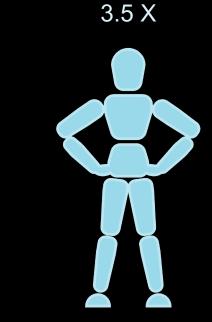




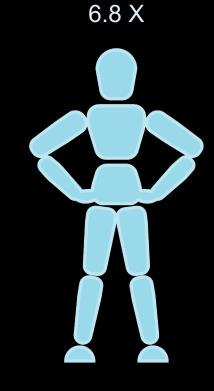
## Multiplicative impact on healthcare costs

1X

No chronic conditions and no mental health illnesses



Chronic conditions without any mental health illnesses



Chronic conditions with mental health illnesses







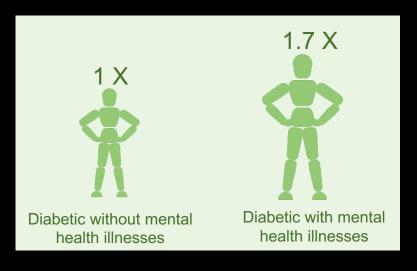


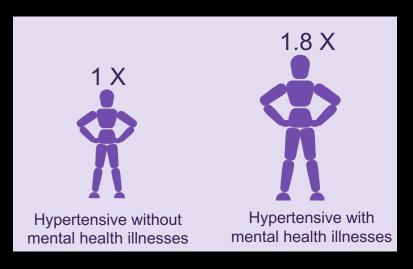


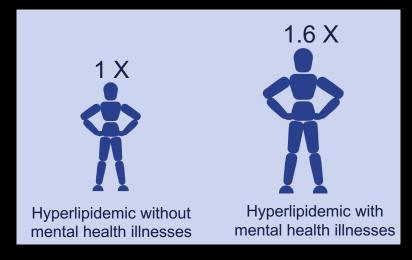


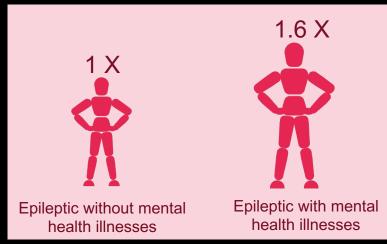


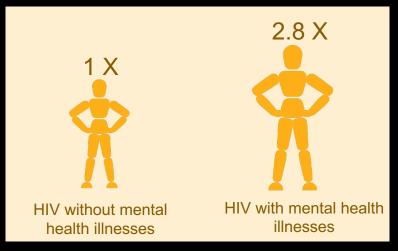
## Multiplicative impact on healthcare costs by chronic condition

























#### CASE STUDY 1

"Depression and type 2 diabetes: A causal relationship and mechanistic pathway" from Diabetes, Obesity and Metabolism Journal

## The effect of type 2 diabetes on depression

Hyperglycaemia and dyslipidemia

brain serotonin and chronic low grade inflammatory disorders

Chronic low grade inflammatory disorders = obesity, insulin resistance, osteoarthritis, neuropsychiatric disorders

10%-15% have mild/moderate depression

Diabetics = more at risk of depression

Diabetic females = more at risk of depression

Uncontrolled diabetes = more at risk of depression















#### CASE STUDY 1

"Depression and type 2 diabetes: A causal relationship and mechanistic pathway" from Diabetes, Obesity and Metabolism Journal

#### The effect of depression on type 2 diabetes

Depression = cause/consequence of poor gylcaemic control

Possibilities of antidepressant and antidiabetic medications

Release of counter regulatory hormones = insulin resistance

Type 2 diabetes developing in depressed lives is increasingly significant

Various aspects trigger diabetes in depressed lives















#### CASE STUDY 2

"Anxiety in the Age of Hypertension" from Current Hypertension Reports Journal

### Relationship between anxiety and hypertension

Hypertension detected earlier in lives with mental health conditions

Anxiety linked to knowledge of hypertension condition

Occupational stress

Marital stress

Social isolation

Socioeconomic status

Racial discrimination

Public speaking causing changes to blood pressure

Blood pressure monitoring for individuals with panic disorders

Reactivity testing

Reductionist methods e.g. animal models



















#### Medical Aid Schemes

Are our mental health benefits useful?



#### **Providers**

Do disease management programmes need to change?

#### **Patients and communities**

Is there enough publicly available information on how chronic diseases impact mental health and vice versa?

#### Insight

Are we able to capture the interconnection in our Episode Grouper and Chronic Care dashboard tools

