12th Current Issues Seminar on Health Care Insurance (CIHCI)

November 14th, 2018

Introduction to Mental Illnesses

Dr Jaee Menon

Chief Medical Consultant , Munich RE India Branch

Institute of Actuaries of India

Agenda

- Mental illnesses / disorders : a silent epidemic

- Magnitude of the problem in India

- Depression and Schizophrenia

- Mental disorders : what is normal & what is disease ?

- Mental illness & health support

- Key messages

What is health ?

- Definition of health includes mental health along with its physical, emotional, social & spiritual components
- Mental health is vital for the growth & productivity of every society & for a healthy, happy life

- Present estimates show people with mental illnesses account for nearly 6.5% of India's population and is projected to increase to 20% by 2020

Mental disorders : The world's silent epidemic

Mental health problems: the silent epidemic

They are generally characterized by a combination of abnormal thoughts, perceptions, emotions, behaviour and relationships with others

Undefined burden

- Economic and social burden for families, communities and countries
- Substantial, but has not been efficiently measured

Hidden burden

- Associated with stigma and violations of human rights and freedoms
- Difficult to quantify

Result ………………

- Increasing use of anti depressants

Cultural aspects

USA National Latino and Asian American Study (NLAAS):

- *"Asian Americans are less likely to seek help for their mental health problems than whites"*

Media Report 2010: In India, Stigma Of Mental Illness Hinders Treatment

- *"General physicians were not aware of mental illness. Initially they would say: Do some yoga and meditation"*

American Academy for Child & Adolescent Psychiatry

- *"20 % of U.S. children and adolescents (15 million), ages 9 to 17, have diagnosable psychiatric disorders"*

Jayaram G et al.: Overcoming cultural barriers to deliver comprehensive rural community mental health care in Southern India (Asian J Psychiatr 2011; 4(4):261-5)

- *" Rural mental health care must be culturally congruent, integrate primary care and local community workers for success"*

Population at higher risk of developing a mental disorder

- Female gender
- Child & adolescents
- Students
- Geriatric population
- People suffering from chronic medical conditions
- Disaster survivors
- Population in custodial care
- Disabled population
- Refugees and people with poor family support

Commonly seen mental disorders

ICD – 10 or Diagnostic and Statistical manual (DSM-V)

Symptom based classification

- Depression & Anxiety
- Bipolar affective disorder (BAPD)
- Schizophrenia & other Psychotic abnormalities
- Personality & behaviour
- Post traumatic stress disorder (PTSD)
- Alcohol and substance abuse

Current prevalence of common & severe mental morbidity among adults
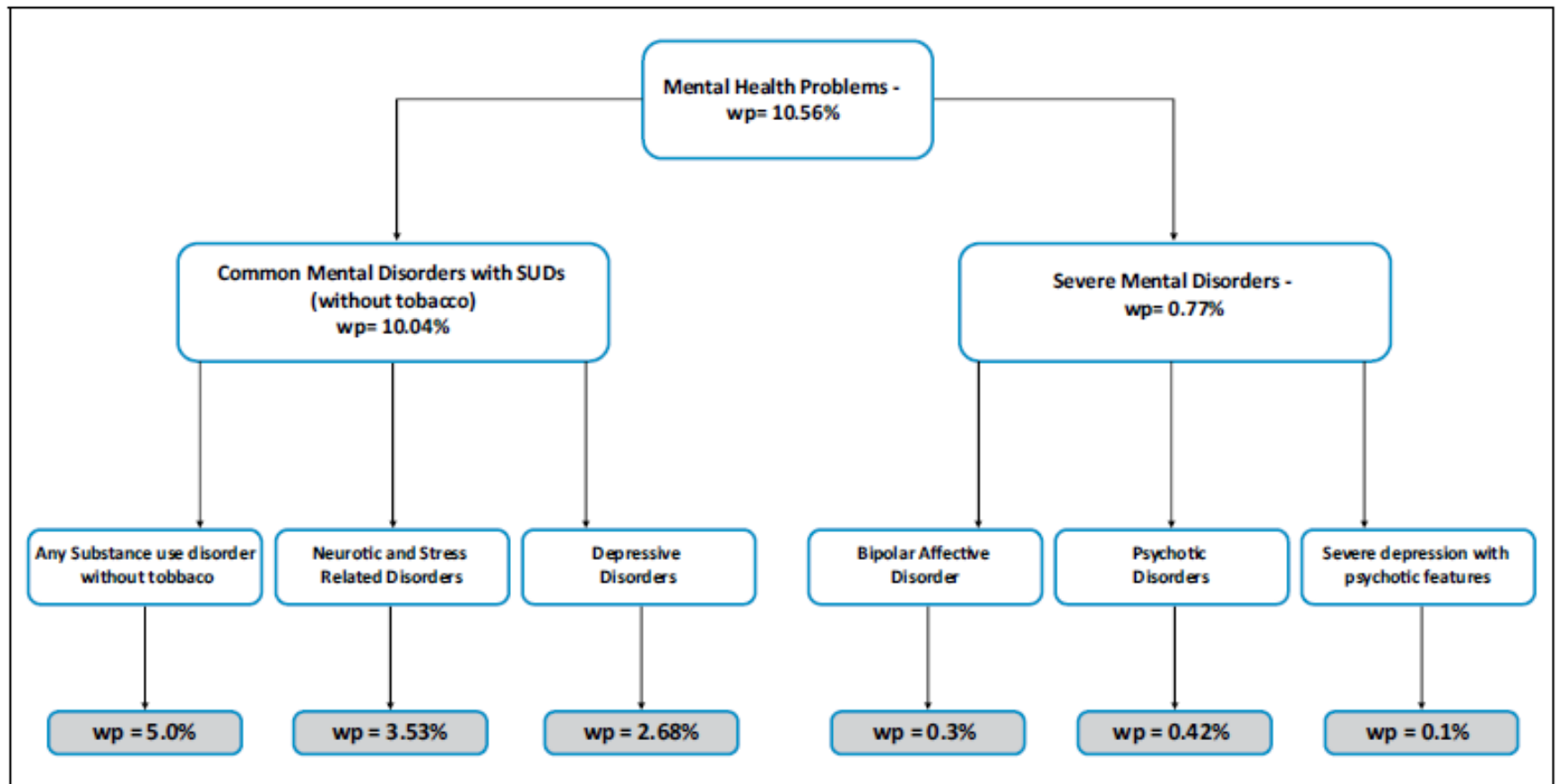
Source : National Mental Health Survey 2016, NIMHANS ,Bangalore

Common & severe mental morbidity

Common mental morbidity :

- Disorders that are highly common , often misdiagnosed as physical illnesses > mismanagement > long term disability

- Lifetime prevalence nearly 6 times higher & current prevalence > 12 times higher as compared to severe disorders

Severe mental disorder :

- Disorders with greater morbidity and mortality requiring intensive & prolonged care

Magnitude of the Problem in India

National Mental Health Survey of India (NMHS) , 2015-16: Prevalence , Pattern & Outcomes

Results :

- 12 selected states, 40,000 individuals, age > 18 years
- Overall weighted prevalence for any mental morbidity – 13.7% (lifetime) ; 10.6% current
- Age group 40-49 predominantly affected
- Substance abuse disorders highest in age group 50-59
- Gender prevalence near similar
- Male preponderance (Alcohol use, BAPD)
- Female preponderance (depressive disorders, neurotic & stress related)
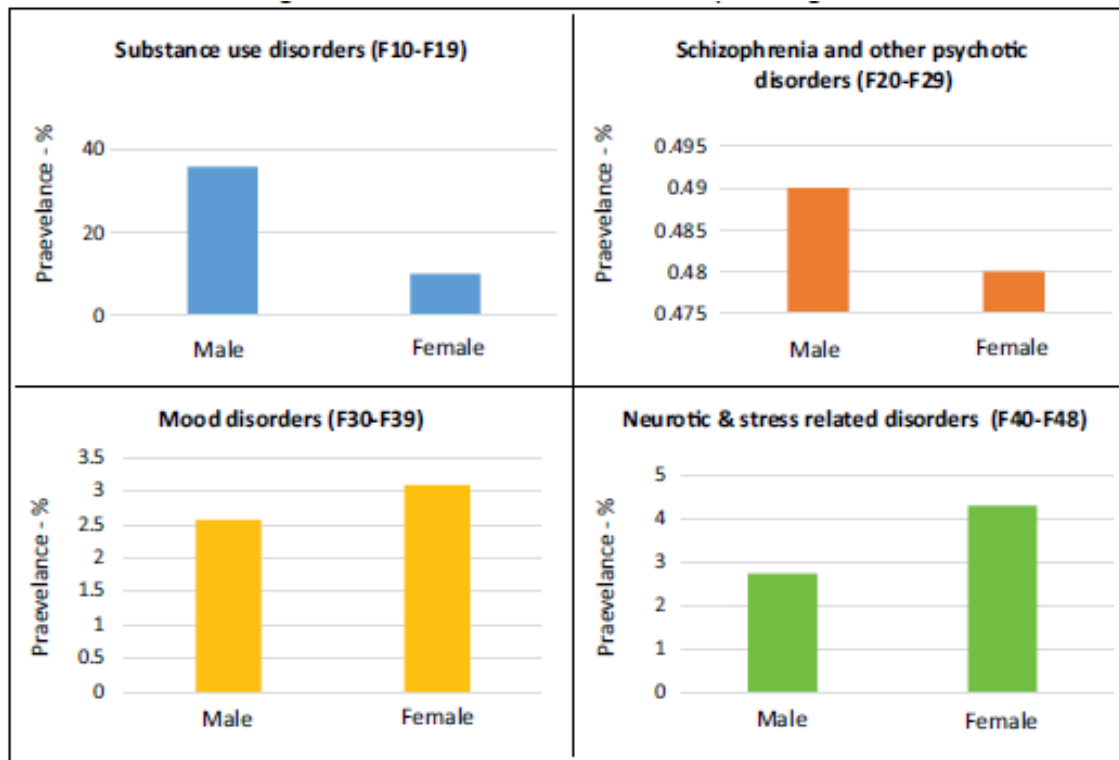
Magnitude of the Problem in India

National Mental Health Survey of India (NMHS) , 2015-16: Prevalence , Pattern & Outcomes

Results :

- Suicide risk in the past 1 month – 0.9% - 0.7% (high & moderate)
- Highest in 40 - 49 age group , females , urban metros
- Treatment gap for mental disorders was 70-92%
- Median duration for seeking care varied from 2.5 – 12 months
- Government facility commonest source of care
- Almost 50% with a mental disorder reported disability in all 3 domains - of work, social & family life
- Median amount spent for care & treatment varied between INR 1000 - 2250
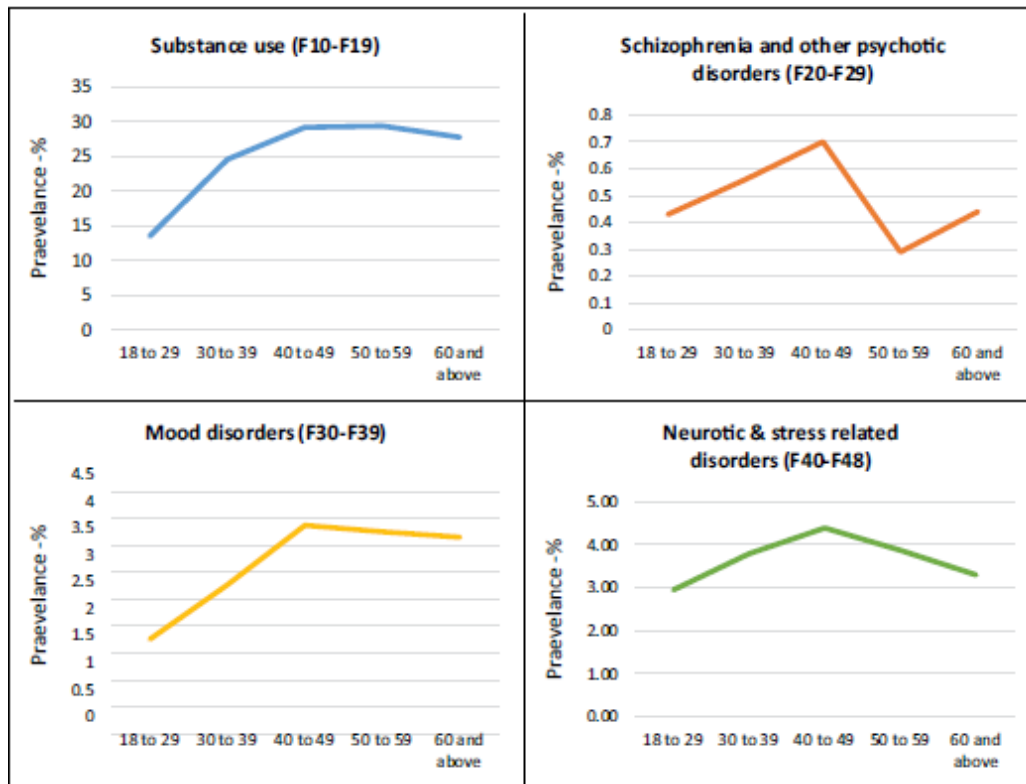
Source: NMHS 2016

Magnitude of the Problem in India

Prevalence of morbidity across gender
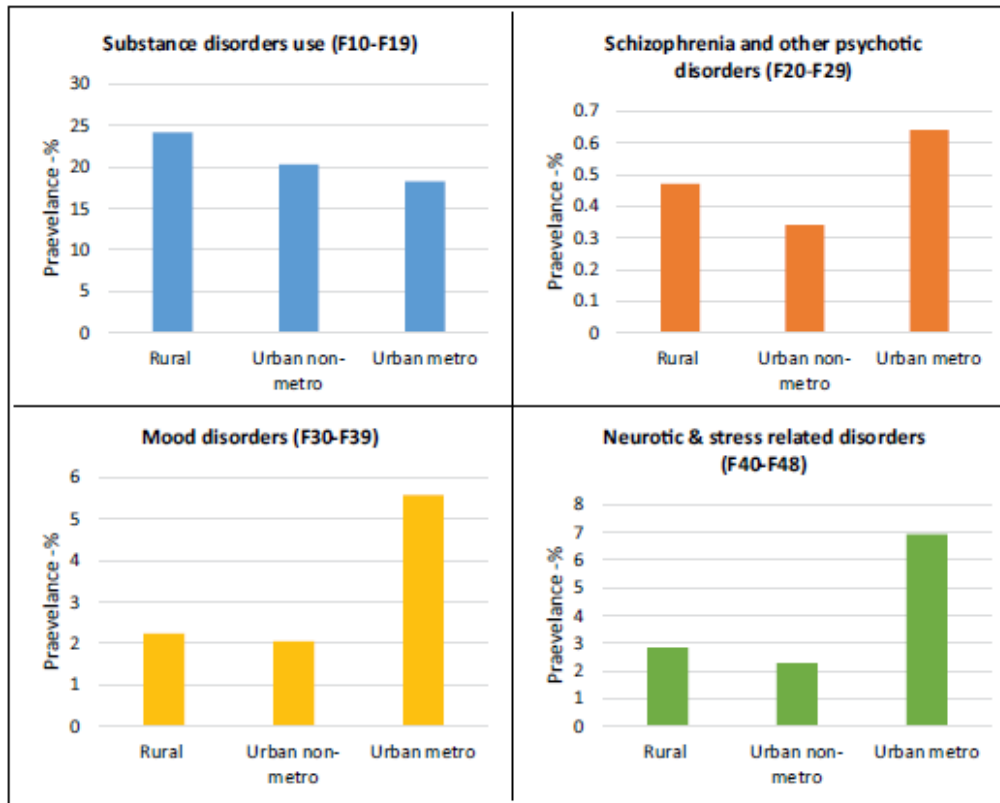
Magnitude of the Problem in India

Trend across various age groups

Magnitude of the Problem in India

Distribution across urban / rural areas

Prevalence in India

Epidemiology and profile of Mental Health Problems in India

- In Pondicherry (South India), psychiatric disorders among older adults were found to be 17.4%.
- Another epidemiological study from Uttar Pradesh (North India) reported 43.3% of the elderly to be suffering from one or the other mental health problems as against 4.7% adults
- 17.3% urban and 23.6% rural older adults aged 60 years and above suffer from syndromal mental health problems
- 4.2 urban and 2.5% of rural older adults suffer from sub-syndromal mental health problems
- Prevalence of dementia in India has been reported to be variable, from 1.4% to 9.1%
- Depression was thrice more common than mania, occurring for the first time after 60 years
- Prevalence of neurotic depression in the rural elderly was found to be 13.5%. A recent report indicates that 5.8% of the urban and 7.2% of the rural older adults primarily suffer from mood (affective) disorders

Tiwari SC, Pandey NM. Status and requirements of geriatric mental health services in India: An evidence-based commentary. Indian J Psychiatry 2012;54:8-14.

Suicide risk in India

Age-standardized suicide rates (per 100 000 population), both sexes, 2016

Suicide rate (per 100 000 population)
- <5.0
- 5.0–9.9
- 10.0–14.9
- ≥15.0
- Data not available
- Not applicable
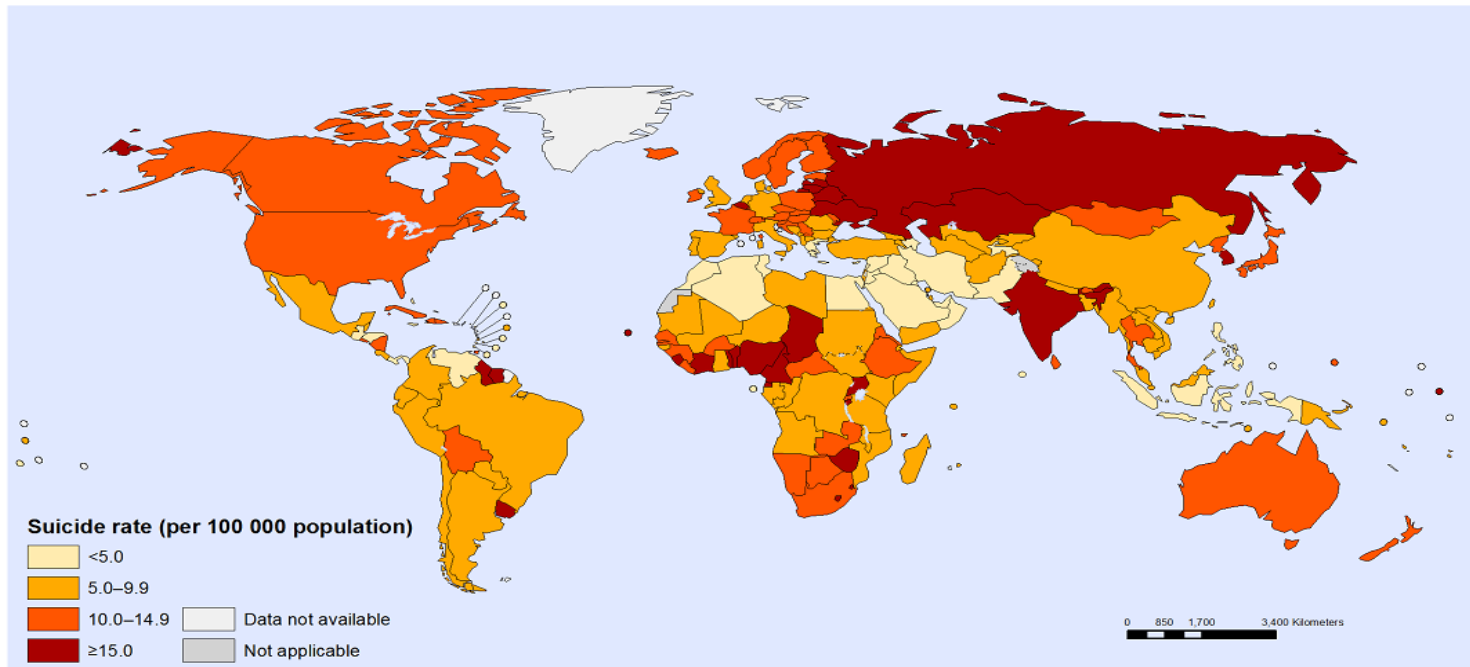
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Information Evidence and Research (IER)
World Health Organization

World Health Organization

© WHO 2018. All rights reserved.

Source : WHO

17

Suicide risk in India

Suicide incidence rate (per 100,000 population) across NMHS states

	AS	CG	GJ	JH	KL	MP	MN	PB	RJ	TN	UP	WB	India
Total	11.1	22.4	11.7	4.0	23.9	11.9	2.0	3.3	6.3	23.4	1.7	15.5	10.6
Gender													
Male	15.75	29.32	14.62	5.26	40.01	14.20	2.15	4.85	9.09	30.34	2.01	18.98	14.30
Female	6.79	15.10	9.06	2.55	11.70	10.56	1.34	1.78	3.71	14.32	1.56	12.20	7.24
Age group													
<14 years	0.11	1.28	0.33	0.40	0.73	0.64	0.37	0.11	0.35	1.72	0.12	1.33	0.50
14 -17 years	15.90	20.37	9.60	6.69	13.02	14.97	3.87	2.79	5.17	18.94	1.66	20.88	9.52
18 -29 years	17.47	37.94	19.75	7.15	23.75	24.55	2.37	5.87	11.96	31.46	4.12	23.67	17.15
30 -44 years	19.12	32.91	19.05	5.95	32.55	17.97	2.37	5.21	11.76	30.78	2.89	24.32	17.24
45 -59 years	17.12	32.44	14.46	4.99	40.31	14.27	1.96	4.19	8.51	29.70	1.73	15.86	15.74
>60 years	3.32	18.06	8.98	1.57	42.16	7.58	0.49	1.15	3.33	18.96	0.64	9.75	9.40

Source: National Crime Records Bureau-2014
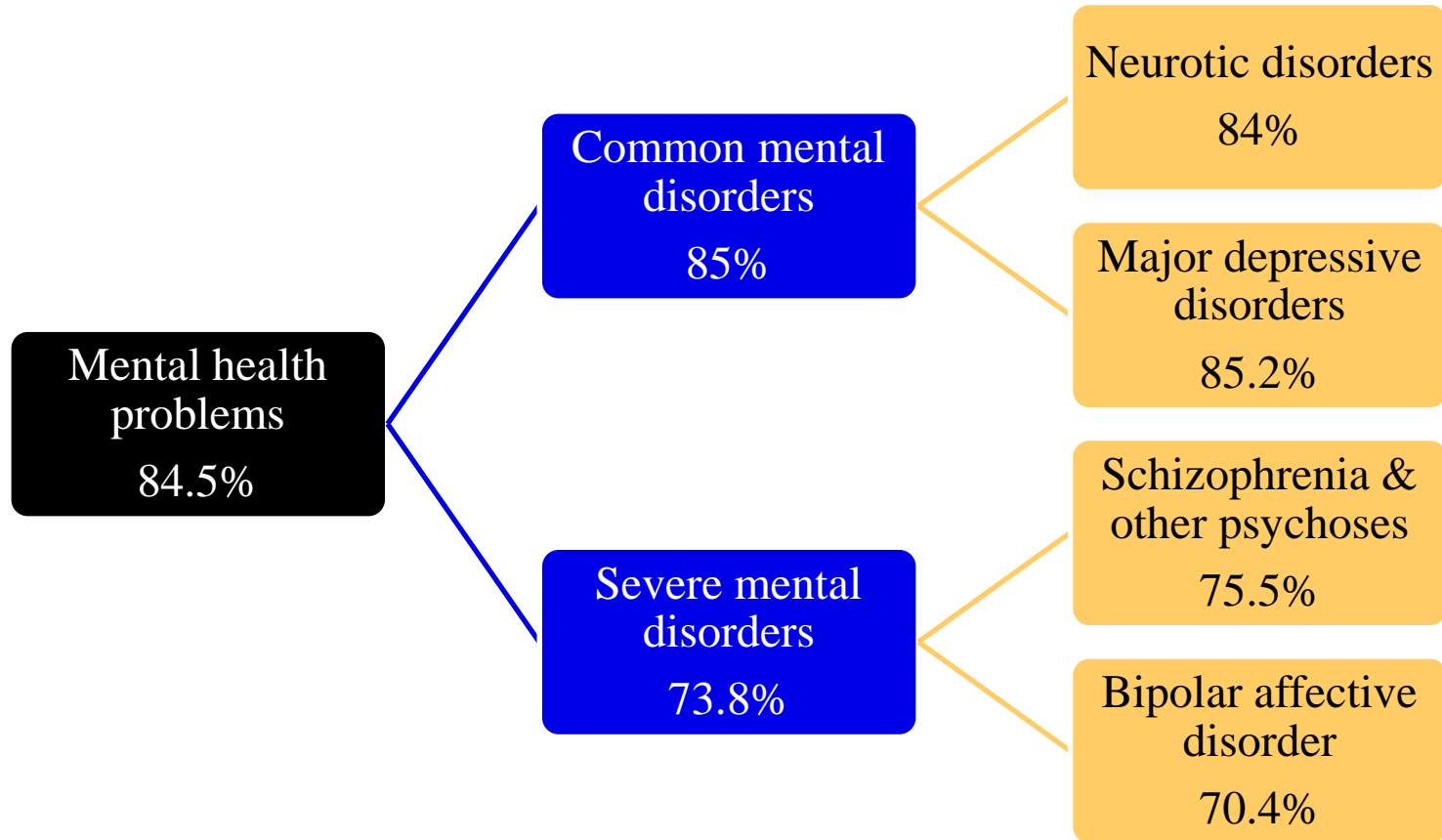
Source : NMHS 2016

Treatment gap

- Number of people with active disease who are not on treatment or on inadequate treatment
- Expressed as a percentage of the total number of people with active disease
- Useful indicator for accessibility , utilization & quality of health care

Multi-country survey by WHO :

- 30-35% (developed countries) & 76-85% (less developed countries) received no treatment in the previous 12 months
- Schizophrenia 32%
- Depression & OCD 56%
- BAPD 50%
- Alcohol abuse & dependence 78%

Treatment gap

```
Mental health          Common mental
problems               disorders              Neurotic disorders
84.5%                  85%                     84%

                                              Major depressive
                                              disorders
                                              85.2%

                       Severe mental          Schizophrenia &
                       disorders              other psychoses
                       73.8%                   75.5%

                                              Bipolar affective
                                              disorder
                                              70.4%
```

Socioeconomic impact

- Mental disorders are associated with considerable disability

- Worsened by stigma & discrimination

- Interfere with social life

- Impact ability to carry out daily activities

- Family members , caregivers missing their work

- Monthly expenditure between **INR 1000 – 2500** (Travel & treatment, cultural & religious practices add to the economic crisis)

Psychiatric morbidity across different studies

	Kolar Pilot Study	NMHS 2016	Pune, India	Puducherry, India	Nigeria	Egypt
Instrument used	MINI	MINI	CIDI	CIDI	CIDI	MINI Plus
Reference period	Current	Current	12 month prevalence	12 month prevalence	12 month prevalence	Current
Year of survey	2014	2015-16	2003-2004	2003-2004	2001-2003	2002-2003
Sample size	2,240	34,802	3,023	2995	4,984	14,640
Age group included	18+	18+	18+	18+	18+	18 to 64 years
Overall	7.5%	10.6%	3.2%	15.8%	5.8%	16.9%
Any anxiety disorder	3.6%	4.9%	0.8%	7.1%	4.1%	4.8%
Any mood disorder	1.5%	4.1%	1.8%	7.4%	1.3%	6.4%
Alcohol abuse	0.2%	4.6%	1.0%	5.9%	0.5%	0.03%
Alcohol dependence	1.6%				0.1%	
Treatment rates	7%	17%	5.1%	(5.0%)	1.2%	NM

Mental Disorders : Difficult to Diagnose and to Categorize

SCHIZOPHRENIA

Bipolar disorder

Schizophrenia

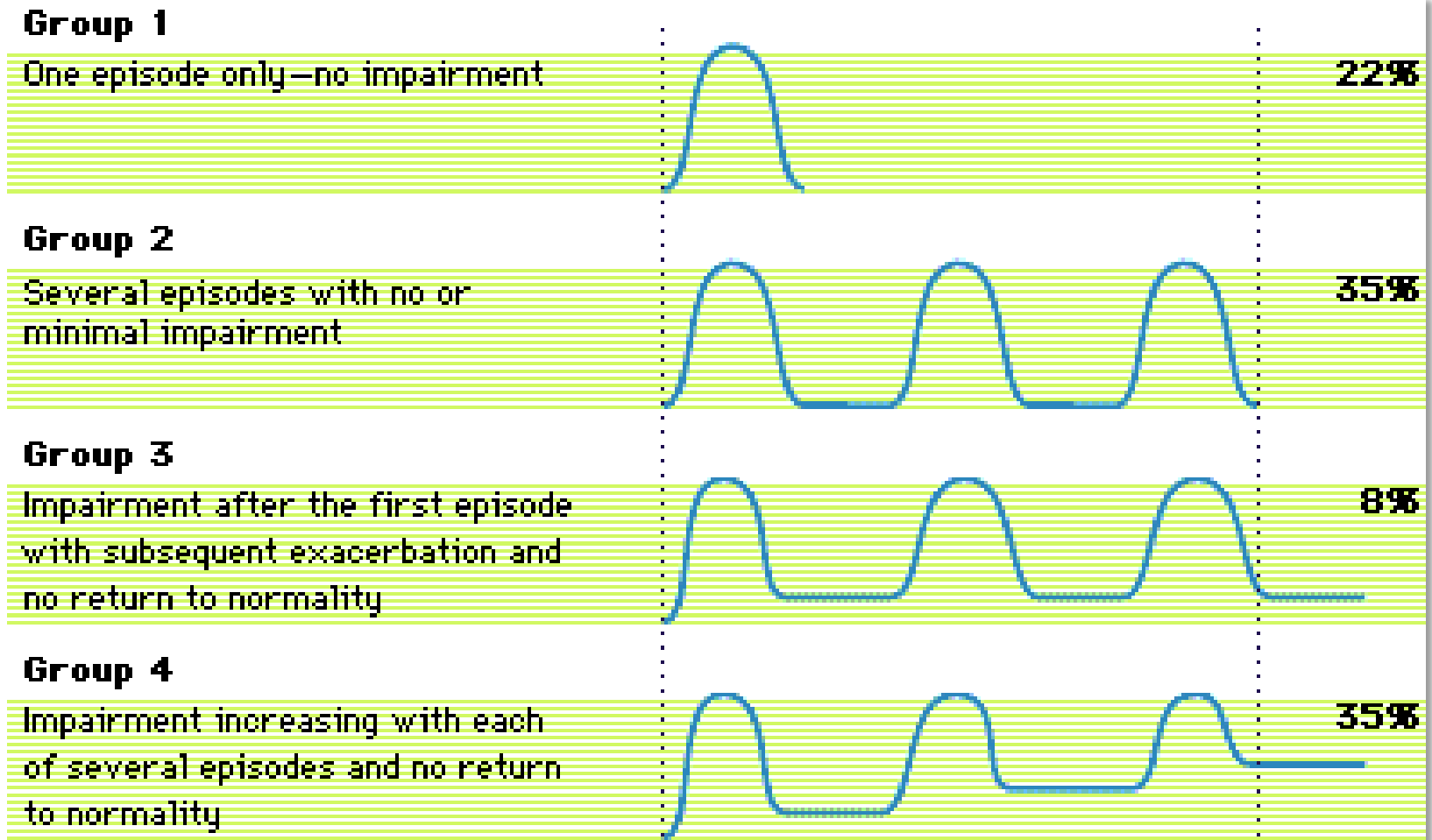Depression

Panic

Volition
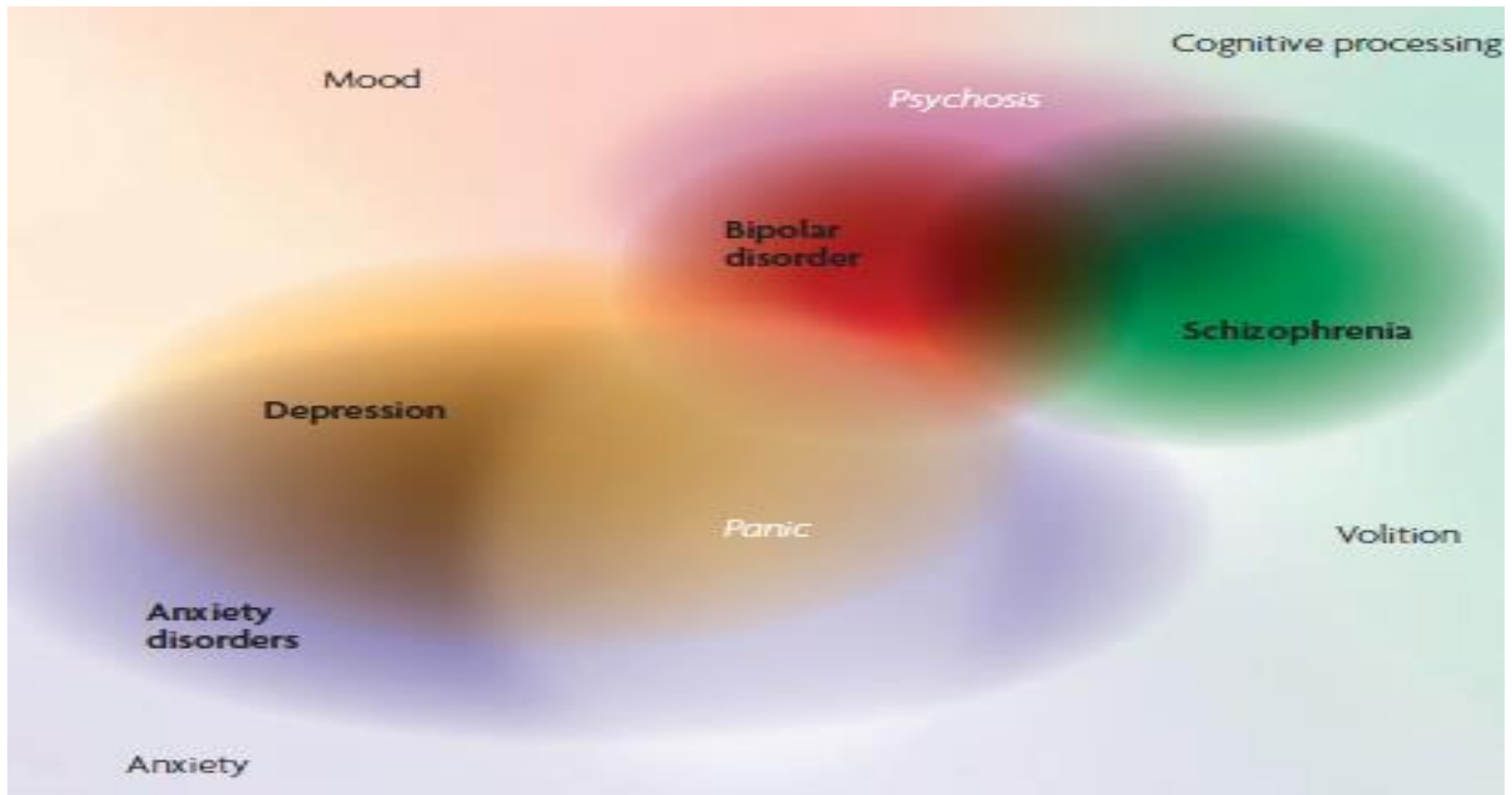
Criteria for Schizophrenia

A) > 2 of the characteristic symptoms during a 1-month period:

- Delusions
- Hallucinations
- Disorganized speech
- Grossly disorganized or catatonic behaviour
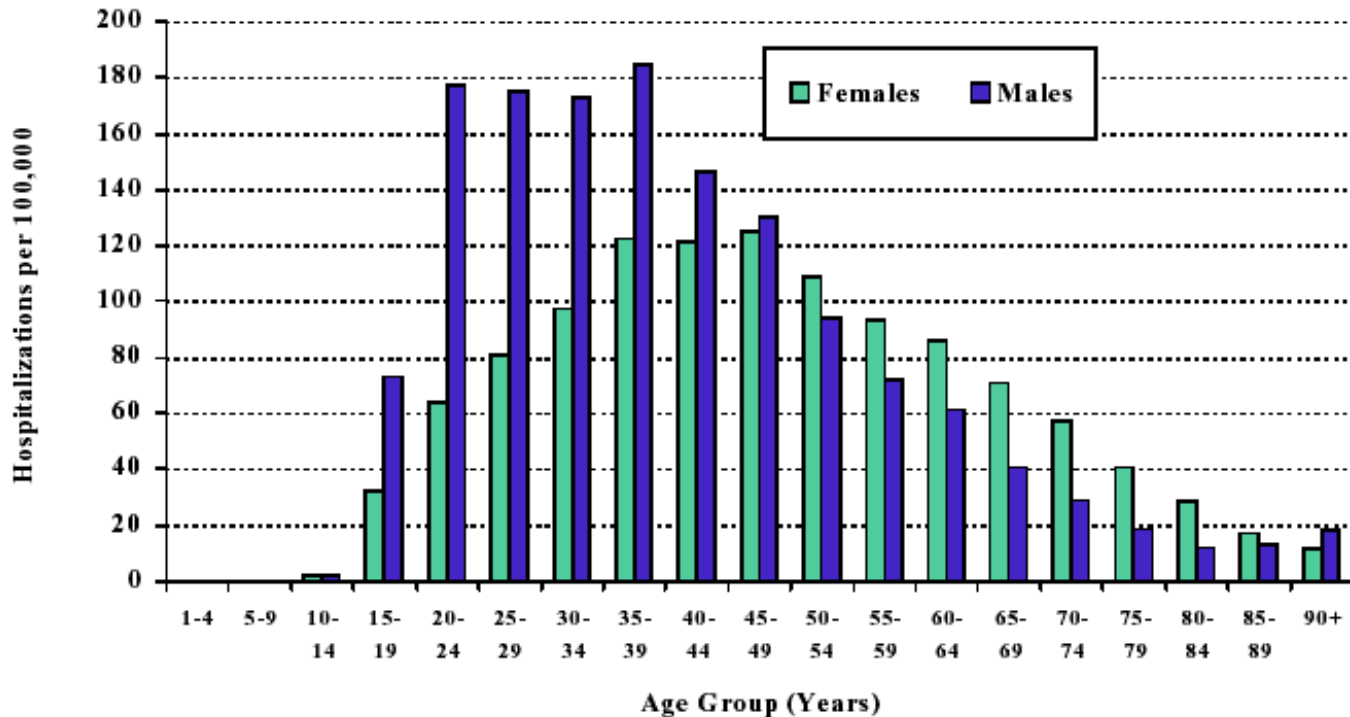- Negative symptoms

B) Duration: At least 6 months

C) Social/occupational dysfunction: work, interpersonal relations, self-care

Course of Schizophrenia

Group 1

One episode only—no impairment   22%

Group 2

Several episodes with no or
minimal impairment   35%

Group 3

Impairment after the first episode
with subsequent exacerbation and
no return to normality   8%

Group 4

Impairment increasing with each
of several episodes and no return
to normality   35%
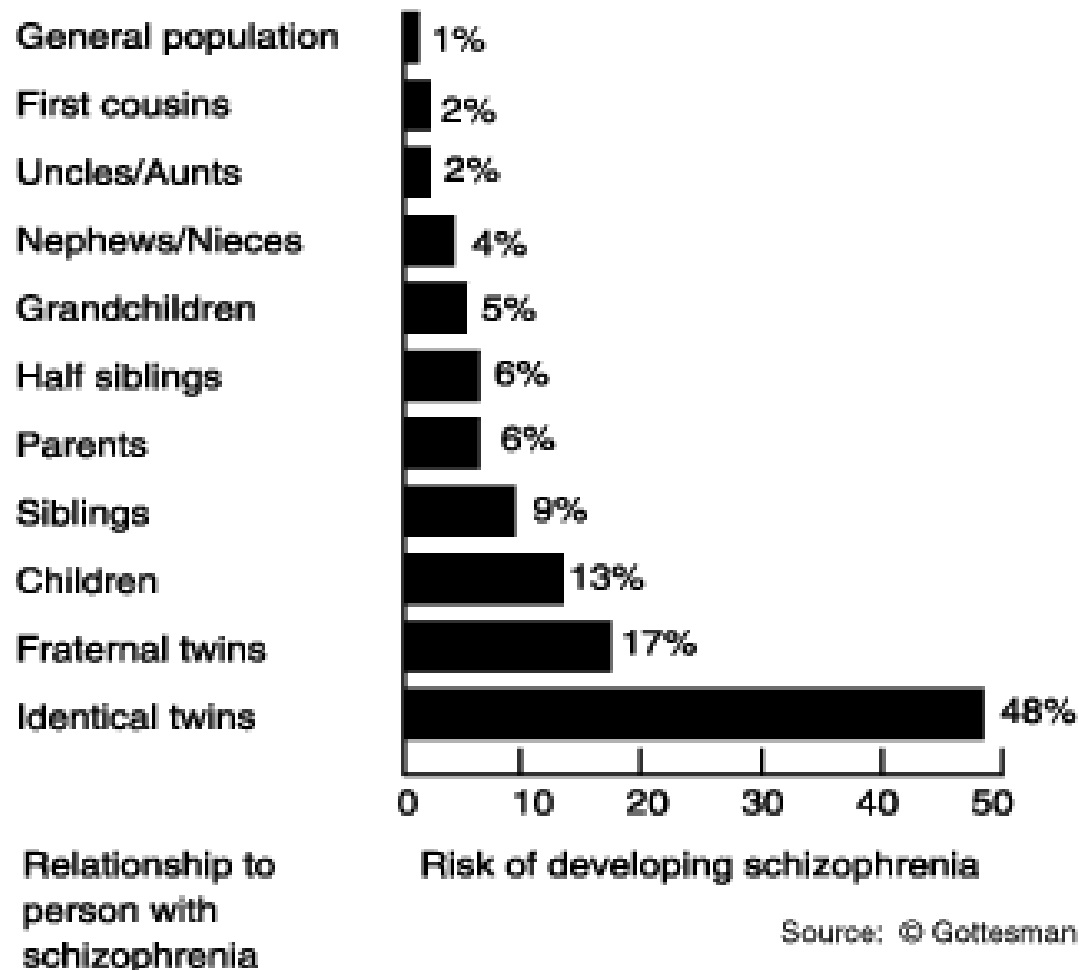
Age at Diagnosis

Figure 3-1   Hospitalizations for schizophrenia* in general hospitals per 100,000 by age group, Canada, 1999/2000

Source : Centre for Chronic Disease Prevention and Control, Canada

Family History

General population — 1%
First cousins — 2%
Uncles/Aunts — 2%
Nephews/Nieces — 4%
Grandchildren — 5%
Half siblings — 6%
Parents — 6%
Siblings — 9%
Children — 13%
Fraternal twins — 17%
Identical twins — 48%

Relationship to person with schizophrenia

Risk of developing schizophrenia

Source: © Gottesman (1991).

Comorbidity of Schizophrenia

- Depression 25%
- Substance abuse
    - ➢ Alcohol   30%
    - ➢ Illicit drugs 25%
- Smoking   50%
- Cardiovascular disease   15-20%

Prognosis of Schizophrenia

- Schizophrenia itself is not a fatal disease
- BUT it carries a significant extramortality and extramorbidity
  - Suicides
  - Accidents
  - Poor general physical health

Prognosis of Schizophrenia

After 10 **/ 30** years of diagnosis :

- 25% completely recover……………….25%

- 25% much improved, relatively independent……..35%

- 25% improved, but require extensive support network…..15%

- 15% hospitalized, unimproved…………….10%

- **10% dead (mostly suicide)…………..15%**

DEPRESSION

Slogan for World Health Day 2017

Depression :

Globally ranked as the single largest contributor to non fatal health loss

Global proportion of population is estimated **4.4%**

Burden of depression

Disease affected life years due to mental & substance abuse

Fig. 1: DALYs due to mental and substance abuse

- Depressive disorders — 32.00%
- Anxiety disorders — 14.53%
- Drug use disorders — 10.40%
- Schizophrenia — 9.23%
- others — 33.84%
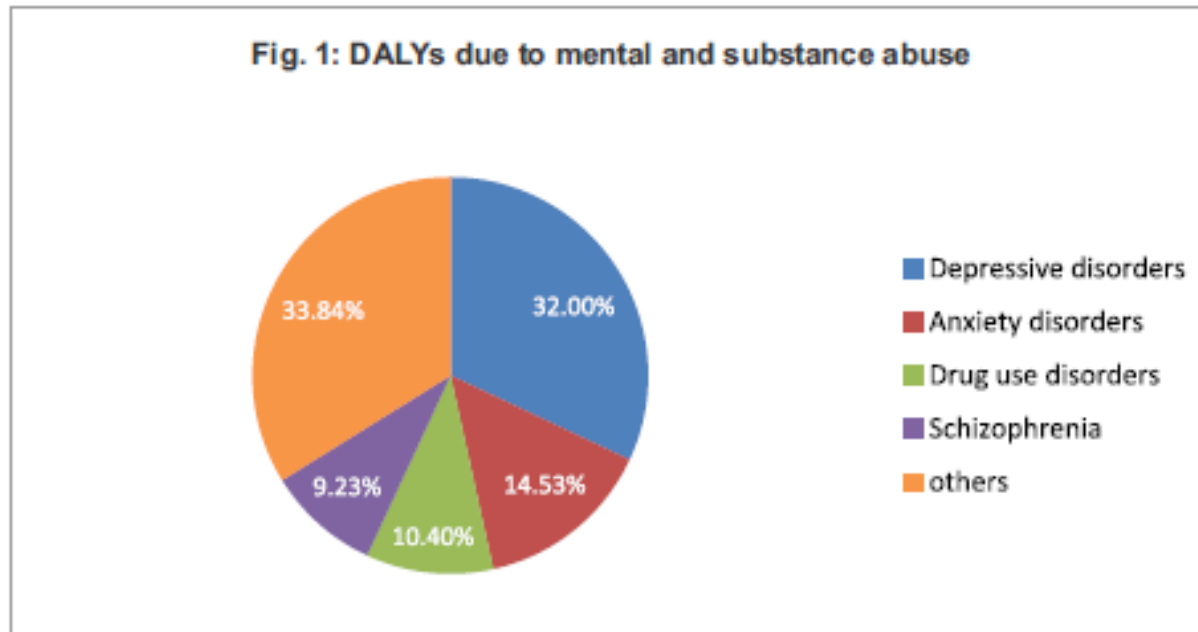
Source: Global Health Estimates 2015 (http://www.who.int/healthinfo/global_burden_disease/en/)

Depression: A Global Burden

Leading causes of burden of disease (DALYs) 2004

Disease or injury	DALYs (millions)	Per cent of total DALYs	Disease or injury	DALYs (millions)	Per cent of total DALYs
World			**Low-income countries[a]**		
1 Lower respiratory infections	94.5	6.2	1 Lower respiratory infections	76.9	9.3
2 Diarrhoeal diseases	72.8	4.8	2 Diarrhoeal diseases	59.2	7.2
3 Unipolar depressive disorders	65.5	4.3	3 HIV/AIDS	42.9	5.2
4 Ischaemic heart disease	62.6	4.1	4 Malaria	32.8	4.0
5 HIV/AIDS	58.5	3.8	5 Prematurity and low birth weight	32.1	3.9
6 Cerebrovascular disease	46.6	3.1	6 Neonatal infections and other[b]	31.4	3.8
7 Prematurity and low birth weight	44.3	2.9	7 Birth asphyxia and birth trauma	29.8	3.6
8 Birth asphyxia and birth trauma	41.7	2.7	8 Unipolar depressive disorders	26.5	3.2
9 Road traffic accidents	41.2	2.7	9 Ischaemic heart disease	26.0	3.1
10 Neonatal infections and other[b]	40.4	2.7	10 Tuberculosis	22.4	2.7

Source: WHO

Depression: A Global Burden

Leading causes of burden of disease (DALYs) 2004

	Middle-income countries				High-income countries		
1	Unipolar depressive disorders	29.0	5.1	1	Unipolar depressive disorders	10.0	8.2
2	Ischaemic heart disease	28.9	5.0	2	Ischaemic heart disease	7.7	6.3
3	Cerebrovascular disease	27.5	4.8	3	Cerebrovascular disease	4.8	3.9
4	Road traffic accidents	21.4	3.7	4	Alzheimer and other dementias	4.4	3.6
5	Lower respiratory infections	16.3	2.8	5	Alcohol use disorders	4.2	3.4
6	COPD	16.1	2.8	6	Hearing loss, adult onset	4.2	3.4
7	HIV/AIDS	15.0	2.6	7	COPD	3.7	3.0
8	Alcohol use disorders	14.9	2.6	8	Diabetes mellitus	3.6	3.0
9	Refractive errors	13.7	2.4	9	Trachea, bronchus, lung cancers	3.6	3.0
10	Diarrhoeal diseases	13.1	2.3	10	Road traffic accidents	3.1	2.6

36

Source: WHO

Depression can affect anyone

- Post partum depression
- Depression among children & adolescents
- Adults & elderly
- Higher prevalence among women & working age adults (20-69 years)

Depression can affect anyone

Prevalence of depressive disorders in India by age

Fig. 2: Prevalence of depressive disorders in India by age and sex – NMHS 2015-16 findings
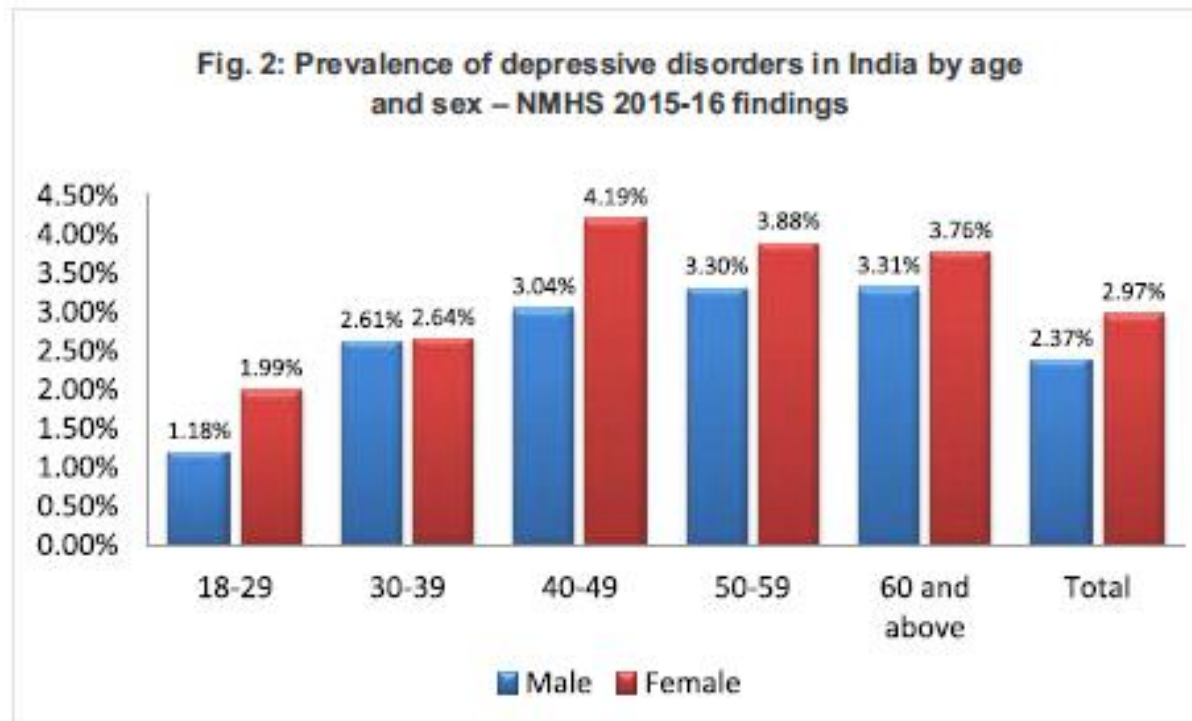
Source : NMHS 2016

Depression : cause & consequence of many health conditions

- Chronic communicable diseases (HIV / AIDS)
- Mental health comorbidity (substance abuse)
- Chronic non communicable diseases (cardiovascular, diabetes, cancer, other mental health disorders)
- 60% increased risk of Type2 diabetes (T2DM)

Emerging evidence from South Asia :

- Significant association with heart attacks
- Risk of ischemic stroke is increased
- 31% of stroke survivors likely to have depression at any point upto 5 years of a stroke

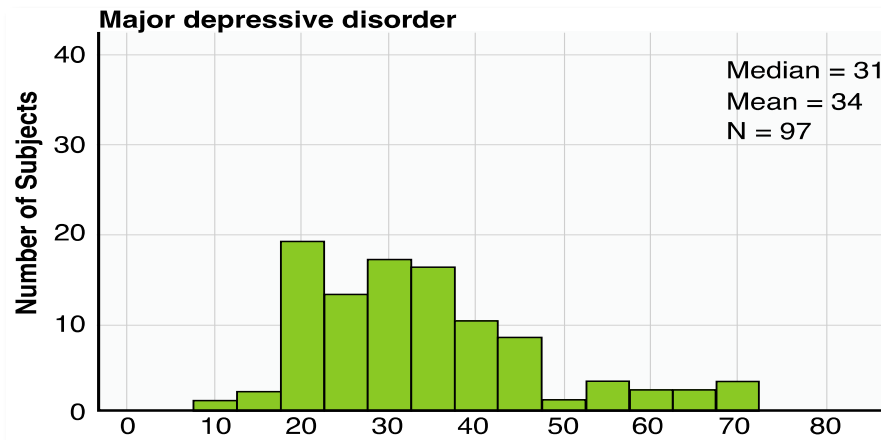# Depression : cause & consequence of many health conditions

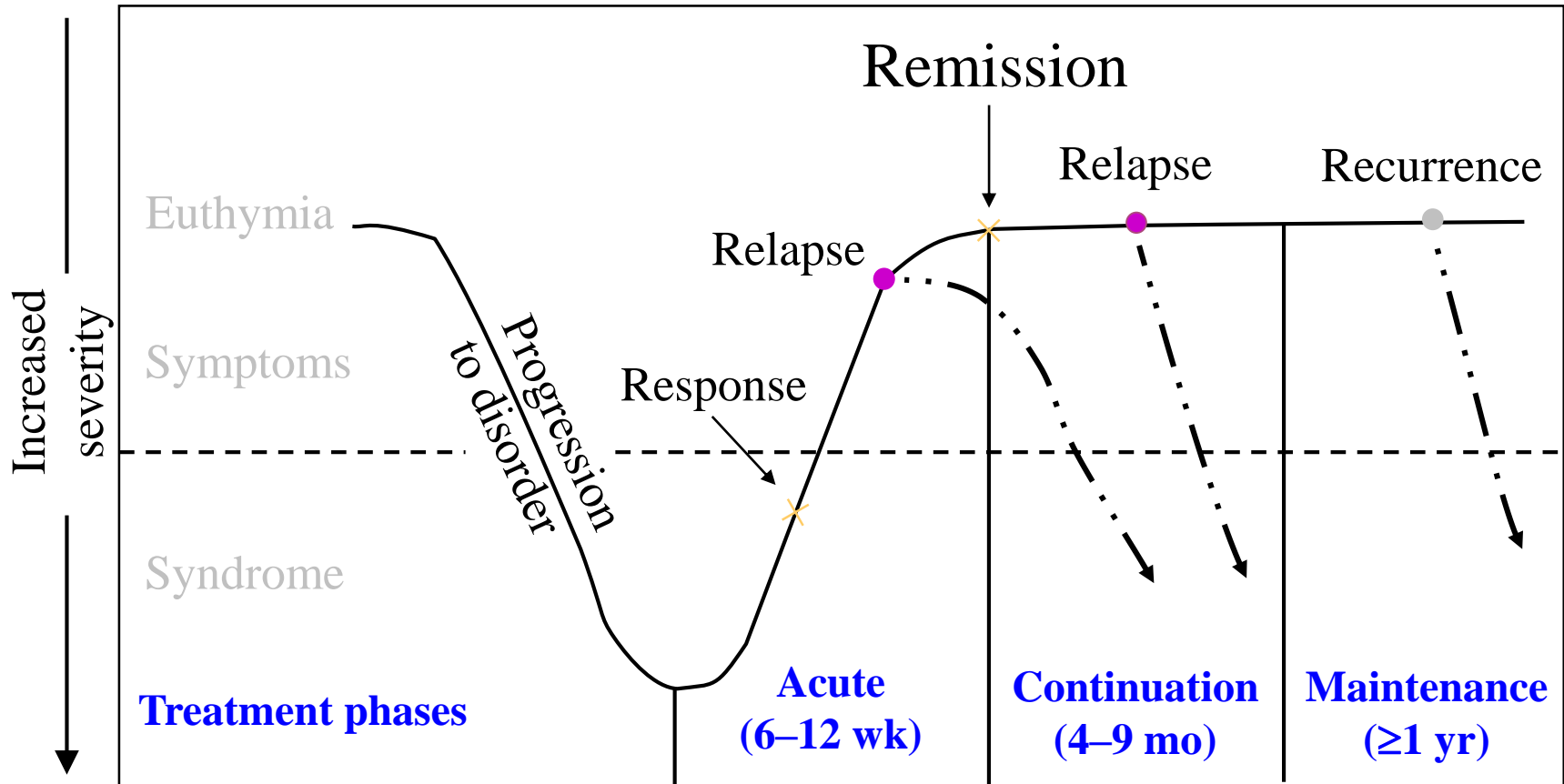Prevalence of major depression in patients with physical illness
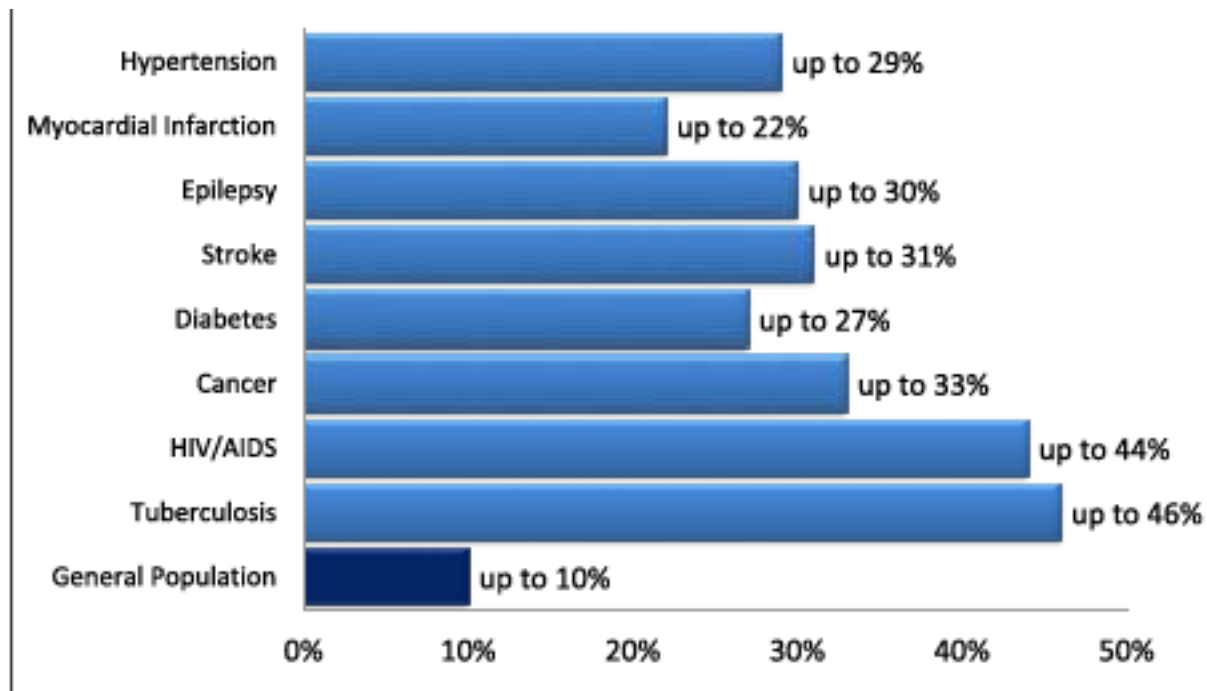
Age at Onset

Age at First Depressive Episode
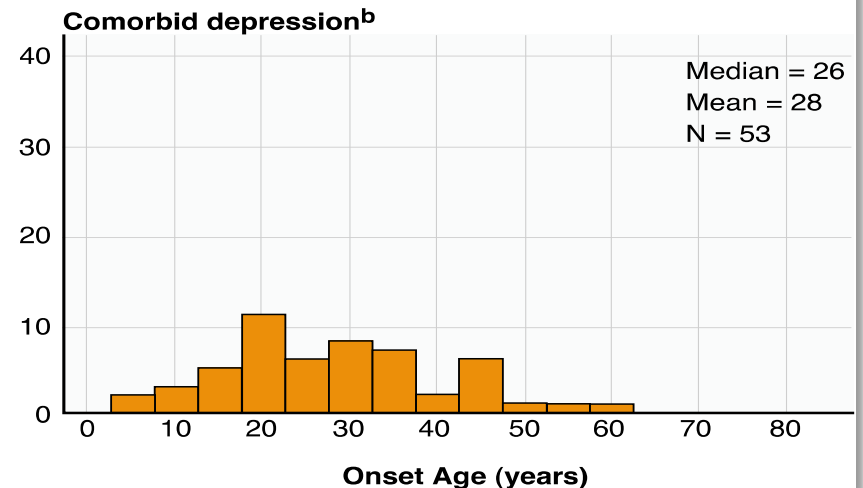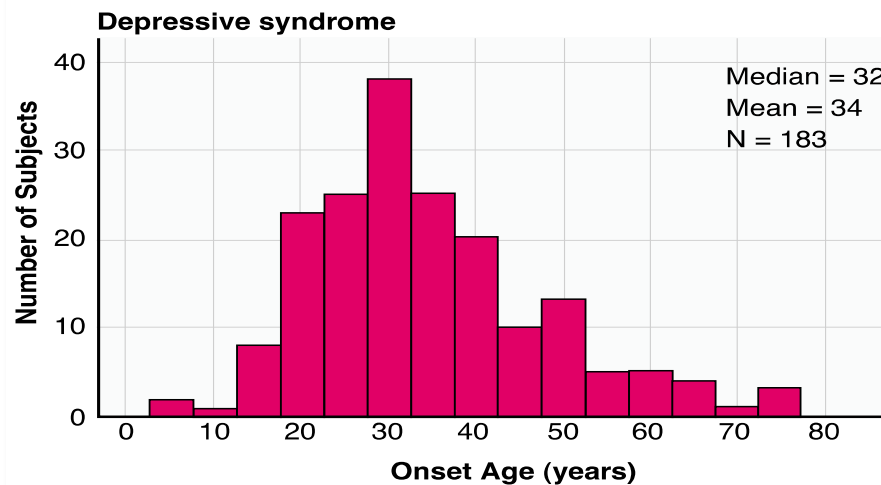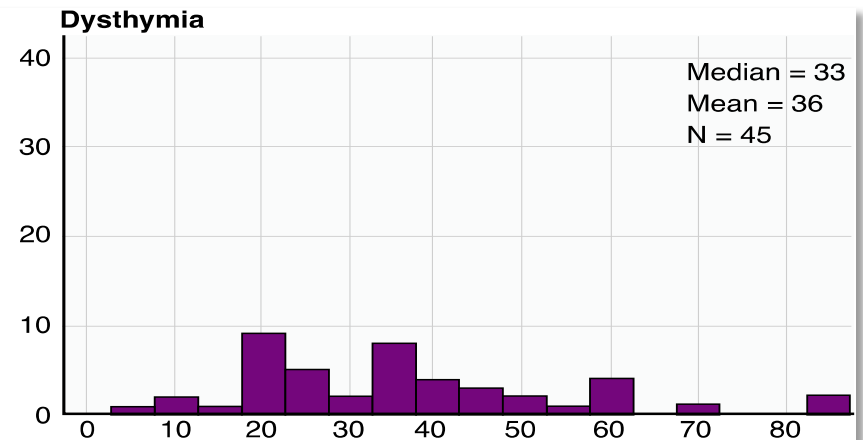
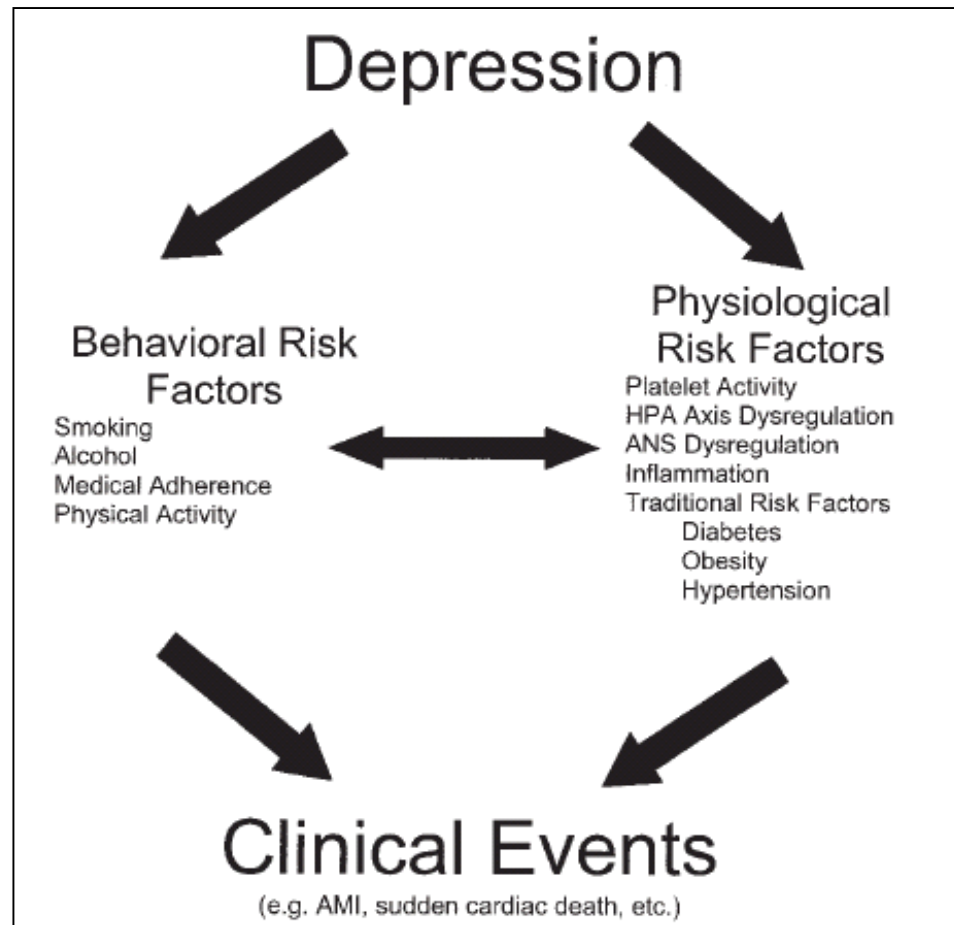# Course of Depression

Outcome of Major Depression

- Remains well after 10 years, full remission   < 25%
- Relapses within one year after the first episode   25 - 40%
- Becomes chronically depressed up to 50%

Risk factors for chronic course:

- Strong family history
- Long duration of disease before treatment
- Alcoholism
- Older age or medical comorbidity
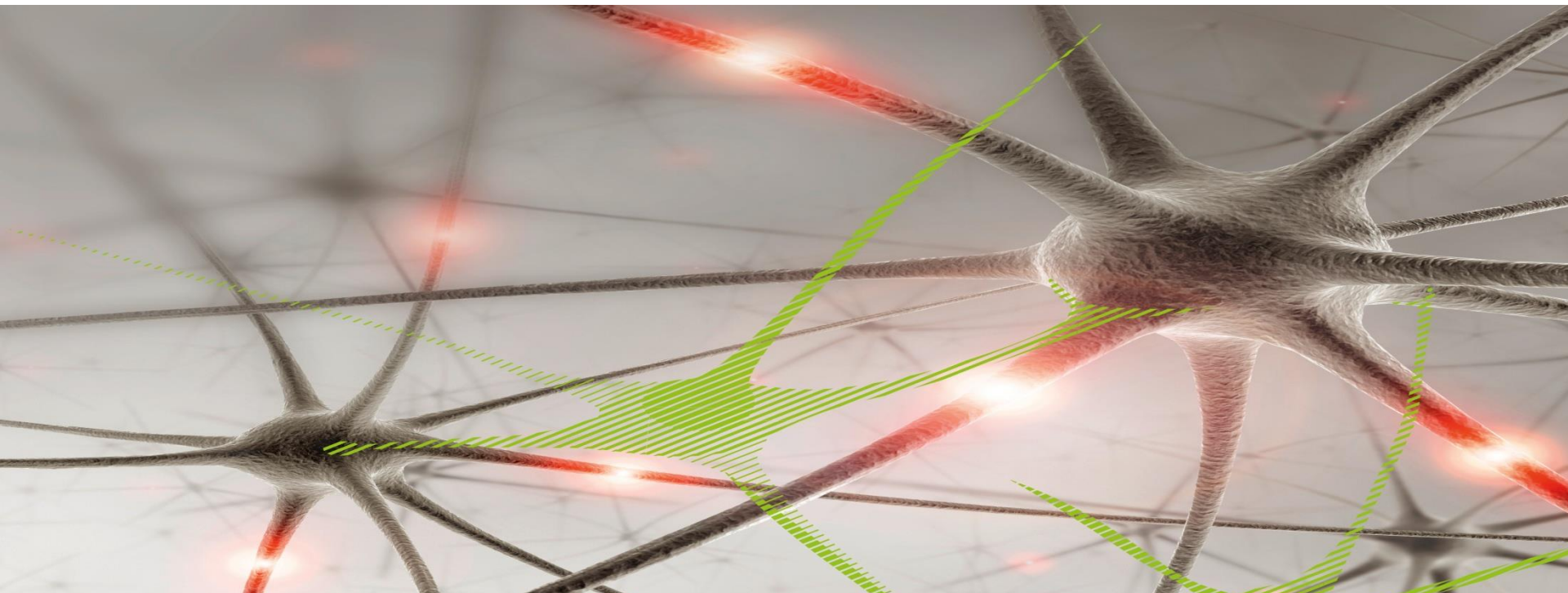- Disability of spouse or recent deaths of family members
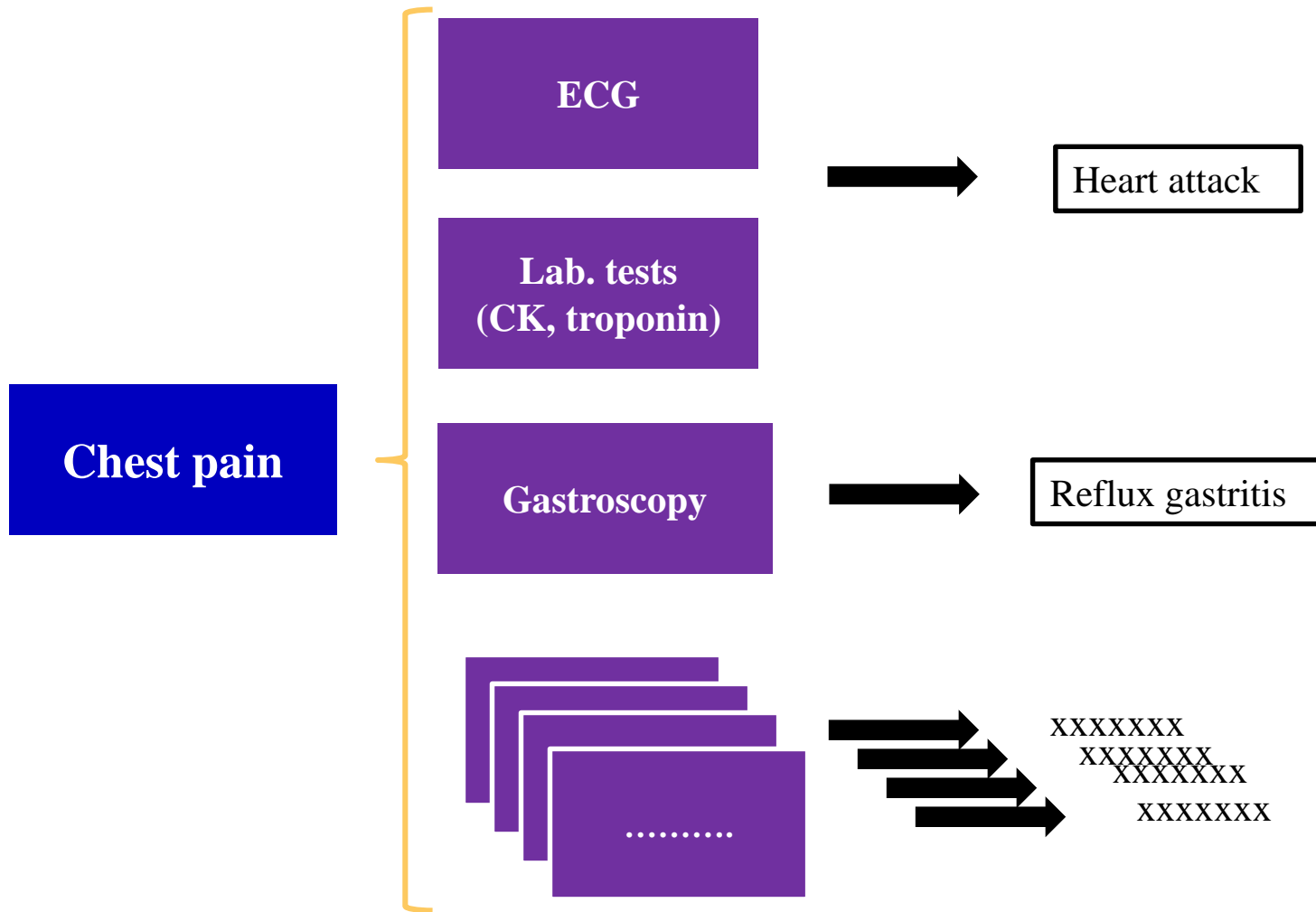
Depression and Coronary disease

44

Burden of Depression in India

- Lifetime prevalence **5.25%** (Age 18 years +)
- Current prevalence 2.68%
- **Urban metro** residents twice that of ono urban metro & rural residents
- More in the illiterate, among the widowed , divorced, separated
- Nearly **50% had a comorbid condition**
- More than **80% do not receive treatment**
- Median duration of treatment was 24 months among those who availed treatment
- 2 of 3 report disability in work , social & family life
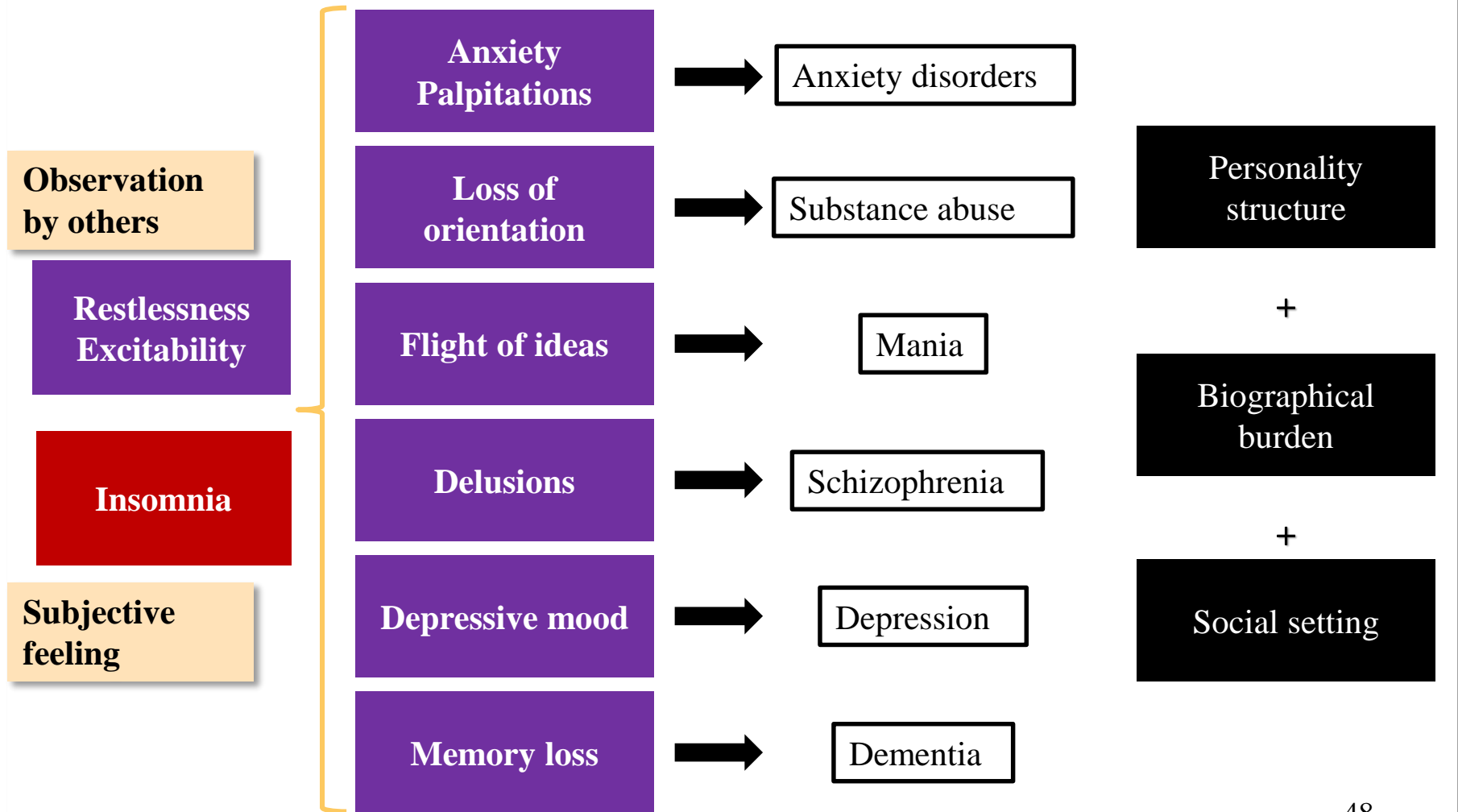
Mental disorders : what is normal & what is disease ?

Diagnosing a Somatic Disease

Chest pain

ECG → Heart attack

Lab. tests (CK, troponin)

Gastroscopy → Reflux gastritis

.... → xxxxxxx xxxxxxx xxxxxxx xxxxxxx

Diagnosing a Mental Disorder

Observation by others

Restlessness Excitability

Insomnia

Subjective feeling

Anxiety Palpitations	➡️	Anxiety disorders
Loss of orientation	➡️	Substance abuse
Flight of ideas	➡️	Mania
Delusions	➡️	Schizophrenia
Depressive mood	➡️	Depression
Memory loss	➡️	Dementia

Personality structure

+

Biographical burden

+

Social setting

48

Mental illness and health support

Mental illness and health support

- Inadequate response by health systems so far
- Wide gap between the need for treatment and its availability all over the world
- Low- and middle-income countries, between 76-85% of people with mental disorders receive no treatment for their disorder (In high-income countries this is 35-50%)
- Require social support and care
- Access to educational programmes which fit their needs
- Finding employment and housing to live and be active in their local communities.

Mental illness and health support

Insurers are (desperately) seeking for solutions to manage their expensive mental illness risks

"In some Canadian provinces mental illnesses are the main reason for a claim (about 60% of cases). We have now introduced online psychotherapy for all mental illness claimants. However we want to further be able to control the rising levels of mental claims."
--Director LTD Claims of Canadian Life insurance company

"In Australia, we are facing a whole new antidiscrimination rule set for mental disorders in life insurance. At present there is a complete lack of tools on how to handle risk and claims management for mental disorders, meaning that we can't offer solutions to our clients."
-- CEO of Autralian Life insurance company

Risk Management For Health Insurance

- Exclusion – no longer applicable ??
- Disease specific waiting periods
- 1-3 year policy period
- Inpatient versus outpatient treatment
- Acute versus Chronic – weeks , months, years to lifelong
- What is the incidence of hospitalization for mental illnesses ?
- Suicide rates in patients with a psychiatric ailment
- Claims assessors – do they have the required skill set ?

Key messages

- Estimated 150 million in need of mental health interventions & care (short term & long term)

- Mental disorders contribute to significant morbidity

- Poverty, low level of education & working status closely interlinked to mental health

- Prevalence is high in both urban & rural areas

- Productive age group (30-49 years) most affected

- Burden among genders almost equal

- Children & adolescents also vulnerable

- Are elderly free ? NO – Almost 10-11% of 104 million elderly citizens in India suffer

Key messages

- Impacts all domains of life (disability, social family)
- All populations (children >>>> elderly), both genders
- Huge burden in India calls for attention of political leaders , policy makers, health professionals , opinion makers & society at large
- Key aspect : Access to health care and social services capable of providing treatment and social support

- **No single solution >>>> integrated approach is the key for success**

In summary ……….

- Common mental disorders are a huge economic burden
- Treatment gap remains very high
- Poverty, low level of education & working status closely interlinked to mental health
- Severe disorders (schizophrenia, bipolar affective disorders) equally important
- Substance use esp among young adults is a serious problem
- High suicide risk is an increasing concern
- Co morbid medical conditions likely to co exist
- 3 out of 4 with a mental disorder have significant disability

THANK YOU