

Community 432 Medicine

Doctor's notes are in **green**.
Additional information are in **orange**.
Unmentioned information are in **grey**.

For any mistakes, contact team leader *Rozan Murshid*:
Roza1066@gmail.com



Done By: Raghad Al Mutlaq

Reviewed By:

جامعة
الملك سعود
King Saud University



MENTAL HEALTH

Learning objectives

1. Define “mental health” and state the factors that contribute to the achievement of mental health
2. Debating the placement of “mental health” on the global and national health agenda
3. Discuss the global and national magnitude of mental illnesses based on GBD
4. List and classify the factors contributing to the occurrence of mental illnesses
5. Define stigma and explain its consequences on mentally ill patients, their families and treatment outcome
6. Provide reasons for the integration of mental health in PHC
7. Discuss the primary prevention of mental illnesses
8. Outline the main strategies of integrating mental health into PHC with reference to the initiatives of the Eastern province

Definition of mental health

State of well-being in which every individual realizes his or her **own potential, can cope with the normal stresses of life,** can work productively and fruitfully, and is able to make a contribution to her or his community”

WHO Definition

Definition of mental health

- State of successful performance of mental function,
- resulting in **productive activities**,
- **fulfilling relationships** with people, and
- the ability to **adapt to change** and
- to **cope with adversity** (anything disturbs one's stability)”

Surgeon General David Satcher, 1999

Achieving positive mental health (through the following elements):

Structural factors:

- satisfactory living conditions,
- housing,
- employment,
- transport,
- education

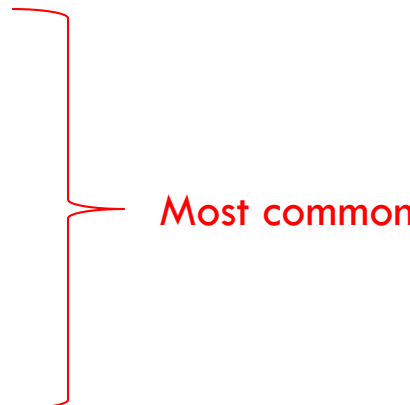
Individual factors:

- Resiliency: قابلية الشخص للعودة إلى حالته الطبيعية بعد التعرض لصدمات قد تؤثر عليه مؤقتاً (مرونة)
- ability to cope with demands and pressure of life. cope: القدرة على التعامل مع الأحداث الجديدة والغير مألوفة (تأقلم)

Community factors (social):

- sense of belonging (شعور بالانتماء)
- social support

Magnitude based on point prevalence - global

- neuropsychiatric conditions had an aggregate *point prevalence* of about **10% for adults** (GBD 2000)
 - About 450 million people were estimated to be suffering from **neuropsychiatric** conditions including
 - **unipolar depressive disorders,**
 - bipolar affective disorder,
 - **schizophrenia,**
 - **epilepsy,**
 - **alcohol and selected drug use disorders,**
 - **Alzheimer's and other dementias,**
 - post traumatic stress disorder,
 - obsessive and compulsive disorder,
 - panic disorder,
 - and primary insomnia.
- 
- Most common

Magnitude based on life-time prevalence - global

Surveys conducted in developed as well as developing countries have shown that, during their entire lifetime, more than **25% of individuals develop one or more mental or behavioural disorders**

(Regier et al. 1988; Wells et al. 1989; Almeida-Filho et al. 1997)

GBD 2010 Arrow Diagram

GBD: global burden of disease

Major depression disorder rank no. 1 globally

Anxiety

Bipolar
Schizophrenia

Notice the increase in prevalence from 1999 to 2010

1990 Mean rank (95% UI)	1990 Disease	2010 Mean rank (95% UI)	2010 Disease	Median % change (95% UI)
1.4 (1-3)	1 Major depressive disorder	1 Major depressive disorder	1 Major depressive disorder	78% (4 to 201)
2.1 (1-4)	2 Low back pain	2 Low back pain	2 Low back pain	108% (65 to 156)
2.6 (1-4)	3 Iron-deficiency anemia	3 Diabetes	3 Diabetes	190% (131 to 264)
4.3 (4-6)	4 Diabetes	4 Iron-deficiency anemia	4 Iron-deficiency anemia	16% (8 to 23)
6.9 (5-12)	5 Neck pain	5 Anxiety disorders	5 Anxiety disorders	165% (-14 to 718)
7.1 (3-18)	6 Anxiety disorders	6 Neck pain	6 Neck pain	104% (54 to 177)
8.9 (5-16)	7 Drug use disorders	7 Osteoarthritis	7 Osteoarthritis	157% (94 to 243)
10.0 (4-24)	8 Asthma	8 Drug use disorders	8 Drug use disorders	101% (23 to 244)
10.2 (6-16)	9 Other musculoskeletal	9 Other musculoskeletal	9 Other musculoskeletal	118% (46 to 229)
11.0 (5-21)	10 COPD	10 COPD	10 COPD	97% (26 to 214)
11.3 (6-17)	11 Road injury	11 Migraine	11 Migraine	107% (55 to 169)
11.6 (6-17)	12 Osteoarthritis	12 Asthma	12 Asthma	53% (-48 to 410)
11.9 (7-18)	13 Diarrheal diseases	13 Road injury	13 Road injury	80% (42 to 135)
13.5 (8-19)	14 Falls	14 Falls	14 Falls	99% (61 to 144)
13.9 (8-22)	15 Migraine	15 Bipolar disorder	15 Bipolar disorder	108% (58 to 175)
14.6 (9-20)	16 Sickle cell	16 Schizophrenia	16 Schizophrenia	136% (56 to 263)
16.8 (8-25)	17 Bipolar disorder	17 Iodine deficiency	17 Iodine deficiency	88% (43 to 144)
19.6 (11-26)	18 Iodine deficiency	18 Sickle cell	18 Sickle cell	33% (5 to 68)
21.0 (16-27)	19 Epilepsy	19 Diarrheal diseases	19 Diarrheal diseases	13% (-14 to 53)
21.8 (13-31)	20 Schizophrenia	20 Dysthymia	20 Dysthymia	103% (62 to 152)
21.9 (15-31)	21 Dysthymia	21 Epilepsy	21 Epilepsy	65% (31 to 107)
22.5 (16-30)	22 Thalassemia	22 Eczema	22 Eczema	64% (25 to 115)
22.7 (15-33)	23 Conduct disorder	23 Conduct disorder	23 Conduct disorder	46% (8 to 97)
22.8 (15-33)	24 Eczema	24 Other hearing loss	24 Other hearing loss	108% (62 to 163)
27.9 (17-40)	25 Edentulism	25 Eating disorders	25 Eating disorders	114% (-40 to 584)

GBD 2010 Arrow Diagram

Notice the increase in prevalence from 1999 to 2010

1990 Mean rank (95% UI)		2010 Mean rank (95% UI)		Median % change (95% UI)
1.0 (1-1)	1 Preterm birth complications	1 Road injury	1.1 (1-2)	49% (17 to 81)
2.2 (2-3)	2 Road injury	2 Ischemic heart disease	3.0 (2-5)	63% (42 to 91)
3.0 (2-5)	3 Congenital anomalies	3 Major depressive disorder	3.8 (1-7)	78% (4 to 201)
4.2 (3-6)	4 Ischemic heart disease	4 Diabetes	4.3 (2-6)	190% (139 to 250)
5.4 (3-10)	5 Major depressive disorder	5 Low back pain	4.4 (2-7)	108% (65 to 156)
7.2 (5-12)	6 Low back pain	6 Preterm birth complications	4.9 (2-7)	-46% (-59 to -15)
7.9 (5-12)	7 Lower respiratory infections	7 Stroke	7.6 (6-9)	54% (32 to 81)
8.6 (5-13)	8 Iron-deficiency anemia	8 Congenital anomalies	8.7 (7-11)	-40% (-58 to -7)
8.9 (6-12)	9 Stroke	9 Iron-deficiency anemia	9.6 (7-13)	15% (8 to 22)
9.7 (5-13)	10 Diarrheal diseases	10 Anxiety disorders	10.2 (2-21)	165% (-14 to 718)
10.5 (6-14)	11 Neonatal encephalopathy	11 Drug use disorders	12.1 (7-19)	122% (32 to 277)
11.2 (7-14)	12 Diabetes	12 Neck pain	13.6 (9-19)	104% (54 to 177)
13.9 (7-24)	13 Neonatal sepsis	13 Lower respiratory infections	13.6 (10-18)	-28% (-45 to -4)
16.6 (14-22)	14 Falls	14 Other musculoskeletal	15.5 (11-21)	126% (57 to 229)
17.1 (13-23)	15 Drowning	15 COPD	15.5 (10-23)	69% (21 to 145)
17.7 (13-25)	16 COPD	16 Osteoarthritis	15.8 (11-22)	157% (94 to 243)
18.3 (8-35)	17 Anxiety disorders	17 Falls	16.1 (11-21)	55% (20 to 99)
18.5 (8-28)	18 Drug use disorders	18 Chronic kidney disease	16.9 (13-21)	203% (131 to 288)
18.5 (10-33)	19 Asthma	19 Asthma	18.8 (8-34)	42% (-44 to 302)
18.9 (14-26)	20 Neck pain	20 Neonatal encephalopathy	20.7 (14-27)	-40% (-64 to 1)
19.9 (15-25)	21 Fire	21 Migraine	21.8 (15-32)	107% (55 to 169)
22.5 (16-32)	22 Tuberculosis	22 Diarrheal diseases	22.6 (18-29)	-49% (-68 to -24)
22.9 (17-29)	23 Other musculoskeletal	23 Other cardio & circulatory	25.0 (20-31)	57% (23 to 109)
24.2 (18-30)	24 Sickle cell	24 Bipolar disorder	25.4 (17-38)	108% (58 to 175)
26.1 (18-35)	25 Osteoarthritis	25 Neonatal sepsis	25.8 (14-39)	-30% (-66 to 17)
26.1 (17-34)	26 Meningitis	26 Fire	26.6 (21-33)	7% (-17 to 48)
26.4 (20-33)	27 Other cardio & circulatory	27 Epilepsy	27.0 (21-33)	55% (25 to 89)
27.9 (22-35)	28 Epilepsy	28 Schizophrenia	28.0 (18-38)	138% (58 to 275)
28.8 (21-40)	29 Migraine	29 Drowning	28.5 (22-35)	-15% (-40 to 23)
30.2 (20-40)	30 Protein-energy malnutrition	30 Sickle cell	29.6 (22-36)	18% (-6 to 49)
31.3 (25-37)	31 Chronic kidney disease	34 Tuberculosis	34.1 (29-40)	-9% (-35 to 23)
33.2 (23-46)	32 Bipolar disorder	42 Meningitis	44.0 (38-52)	-33% (-55 to -3)
39.5 (28-52)	38 Schizophrenia	54 Protein-energy malnutrition	54.5 (41-66)	-40% (-62 to -2)

Major depression disorder

Anxiety

Bipolar

Epilepsy
Schizophrenia

Mental disorders contributing to YLD & DALYS – KSA, 2010

YLD (8 mental disorders out of top 30 disease)

1. Major depressive disorders (78%)
5. Anxiety disorders (165%)
8. Drug use disorders (101%)
11. Migraine (107%)
15. Bipolar disorders (108%)
16. Schizophrenia (136%)
20. Dysthymia (103%)
21. Epilepsy (65%)
23. Conduct disorders (46%)
25. Eating disorders (114%)

DALYs (5 mental disorders out of top 30 diseases)

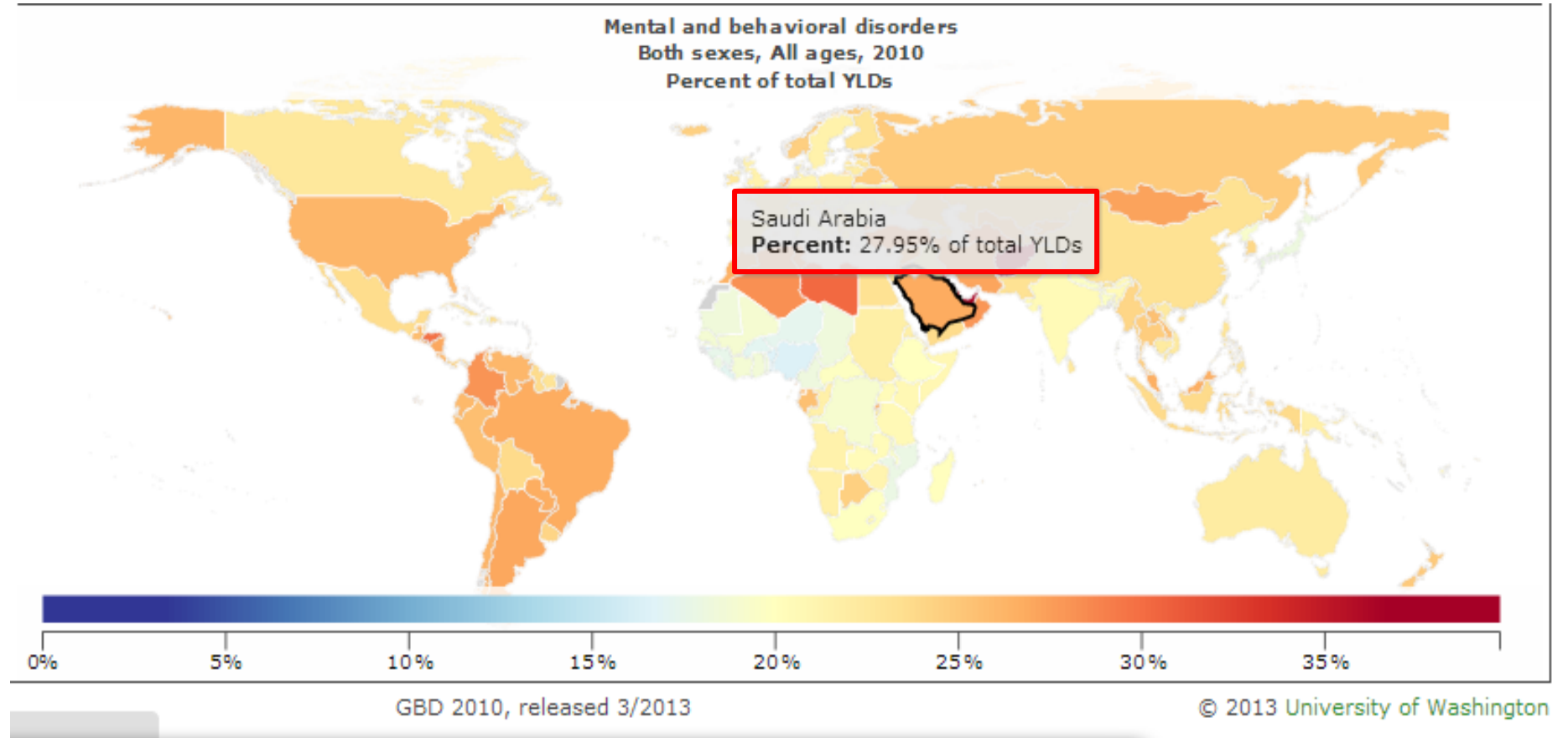
3. Major depressive disorders (78%)
10. Anxiety disorders (165%)
11. Drug use disorders (122%)
21. Migraine (107%)
24. Bipolar disorders (108%)
27. Epilepsy (55%)
28. Schizophrenia (138%)

Percentage increase between 1990 and 2010 and rank out of the top 30 conditions

Contribution of mental illness to **YLDs** – KSA, 2010

Mental and behavioral disorders:

- Schizophrenia
- Depression
- Anxiety
- Drug/alcohol
- Eating disorders
- Pervasive developmental disorders (e.g. autism)
- Childhood behavior disorders



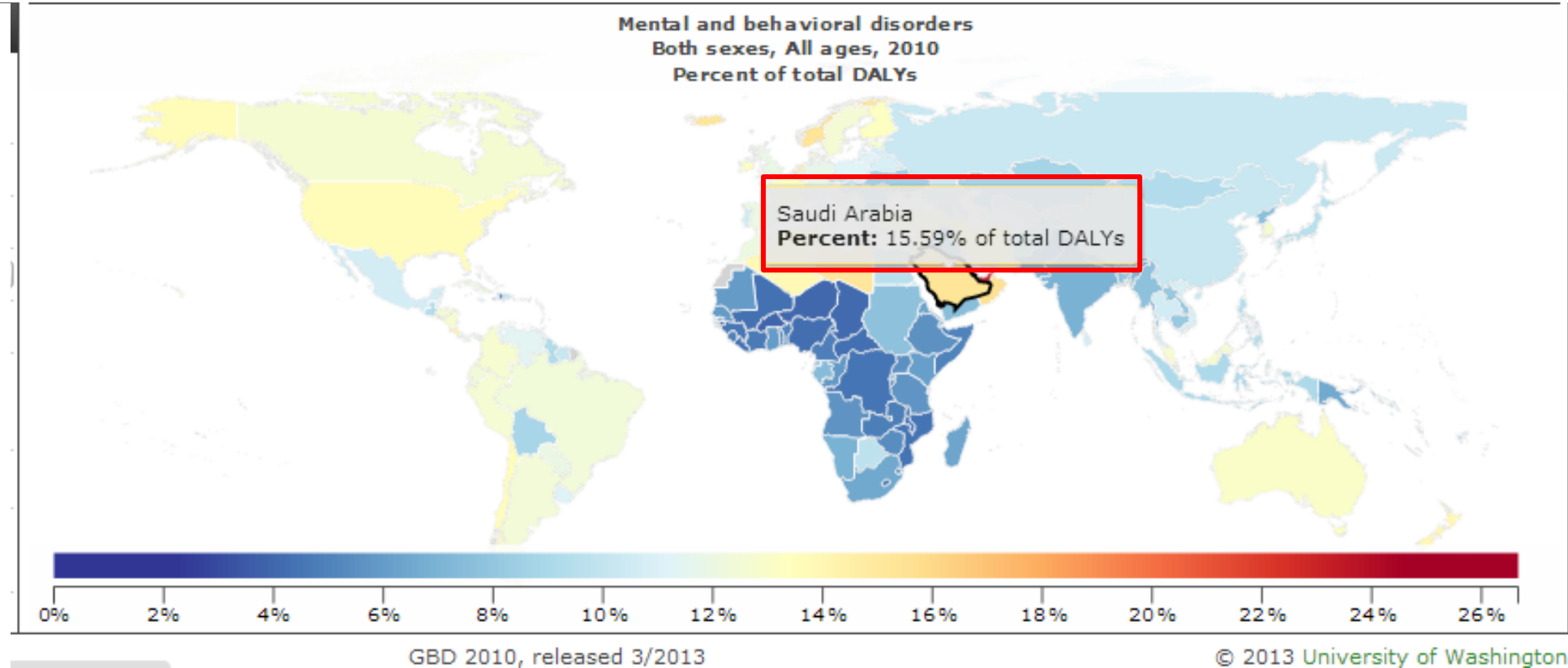
Rate: 3,061.19 per 100,00

in developing countries: we're still need to cope with both physical and mental equally.

Contribution of mental illness to **DALYs** – KSA, 2010

Mental and behavioral disorders:

- Schizophrenia
- Depression
- Anxiety
- Drug/alcohol
- Eating disorders
- Pervasive developmental disorders
- Childhood behavior disorders



Rate: 3,204.65 per 100,00

Consequences of mental illnesses

- Likely to increase in the future: **ageing, low mortality** (developing countries), technologies
- Disabling
- Stigmatizing (will be discussed)
- Family effects (changes to adapt)
- Costly
- Economic loss and drift to poverty (caused by the social drift)
- Burden on healthcare system

Stigma: العار (للتوضيح فقط ولست أحب المفردة)

Stigma is defined as "a cluster of negative attitudes and beliefs that make the general public to **fear, reject, avoid, and discriminate*** against people with mental illness."

- with all social diseases: social causes and when treated should be treated socially as well (e.g. HIV) it's because of having a conception or identity of the disease (socially) that's different from the scientific or actual identity.
- Negative discrimination: تمييز سلبي

e.g. disabled people have positive discrimination as they're allowed to work and the process of hiring them is facilitated, while mental ill persons are not welcomed in jobs.

Stigma is a gap between actual identity (who they are) and virtual identify (what people think they are)

Impact of stigma

- Limits access to quality healthcare because ill people and their families don't want to tell others about the illness.
- leads to concealment or denial of symptoms ill person might think that as long as their having the treatment they'll be considered brainless which will affect their self-confident
- Prevents adherence to treatment
- Inaccurately affects patients' beliefs about what is wrong with their health
- lowers patient's self-esteem and negatively affects self-perception and self-care

Impact of stigma reduce the chance of patients improvement

- It negatively affects the attitudes of health care providers (many health care providers refuse to deal with psychiatric patients)
- Increases isolation of patients and their families
- Contributes to the economic conditions that influence poor outcomes
- Limits the community's response to illness
- Limits the formation of nonprofit groups for support

Lead to



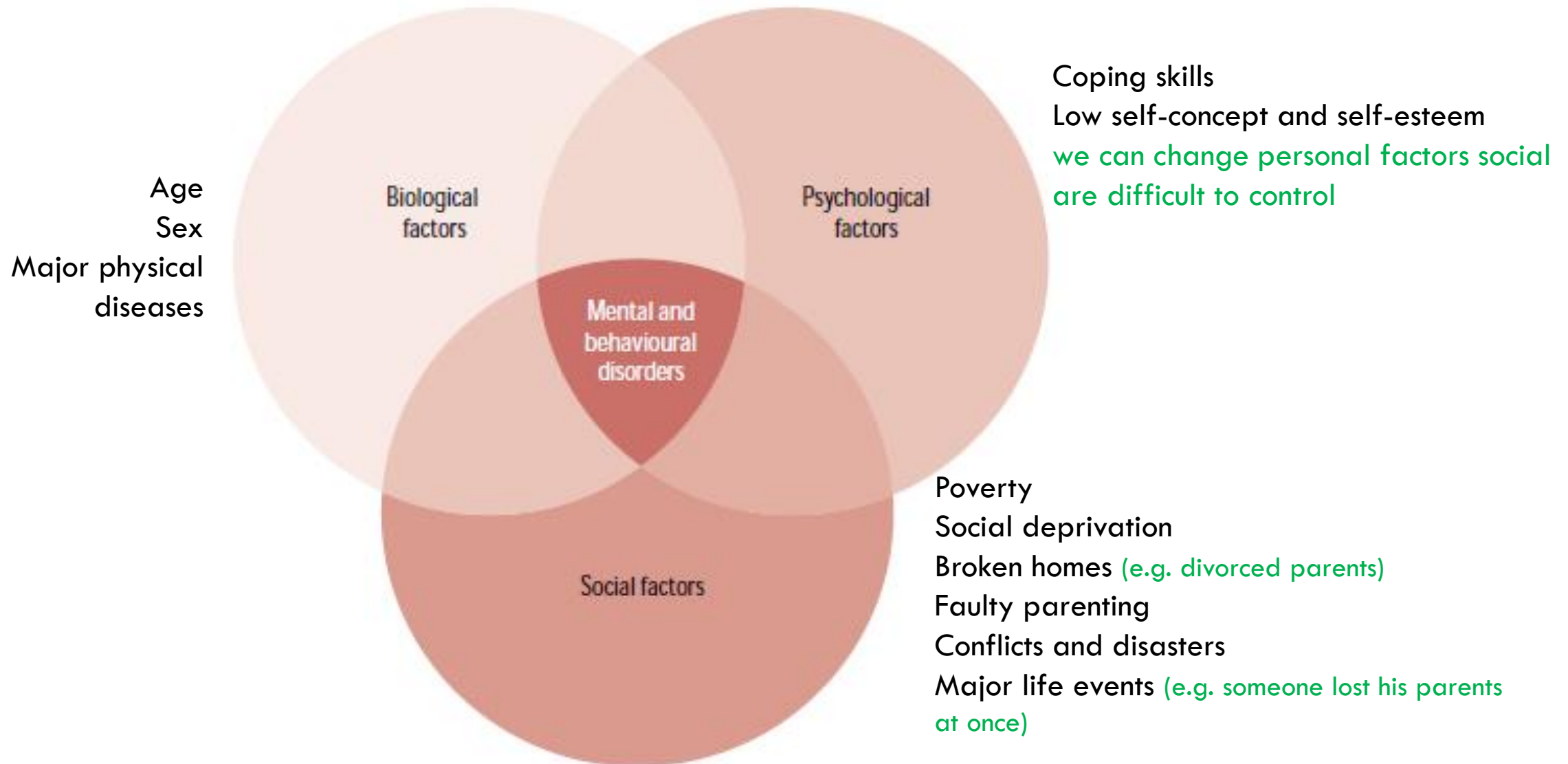
Stigma reduction



An important aspect of mental health promotion involves activities related to dispelling myths and stereotypes associated with vulnerable groups, providing knowledge of normal parameters, increasing sensitivity to psychosocial factors affecting health and illness, and enhancing the ability to give sensitive, supportive, and humanistic health care. (in 10th of October)

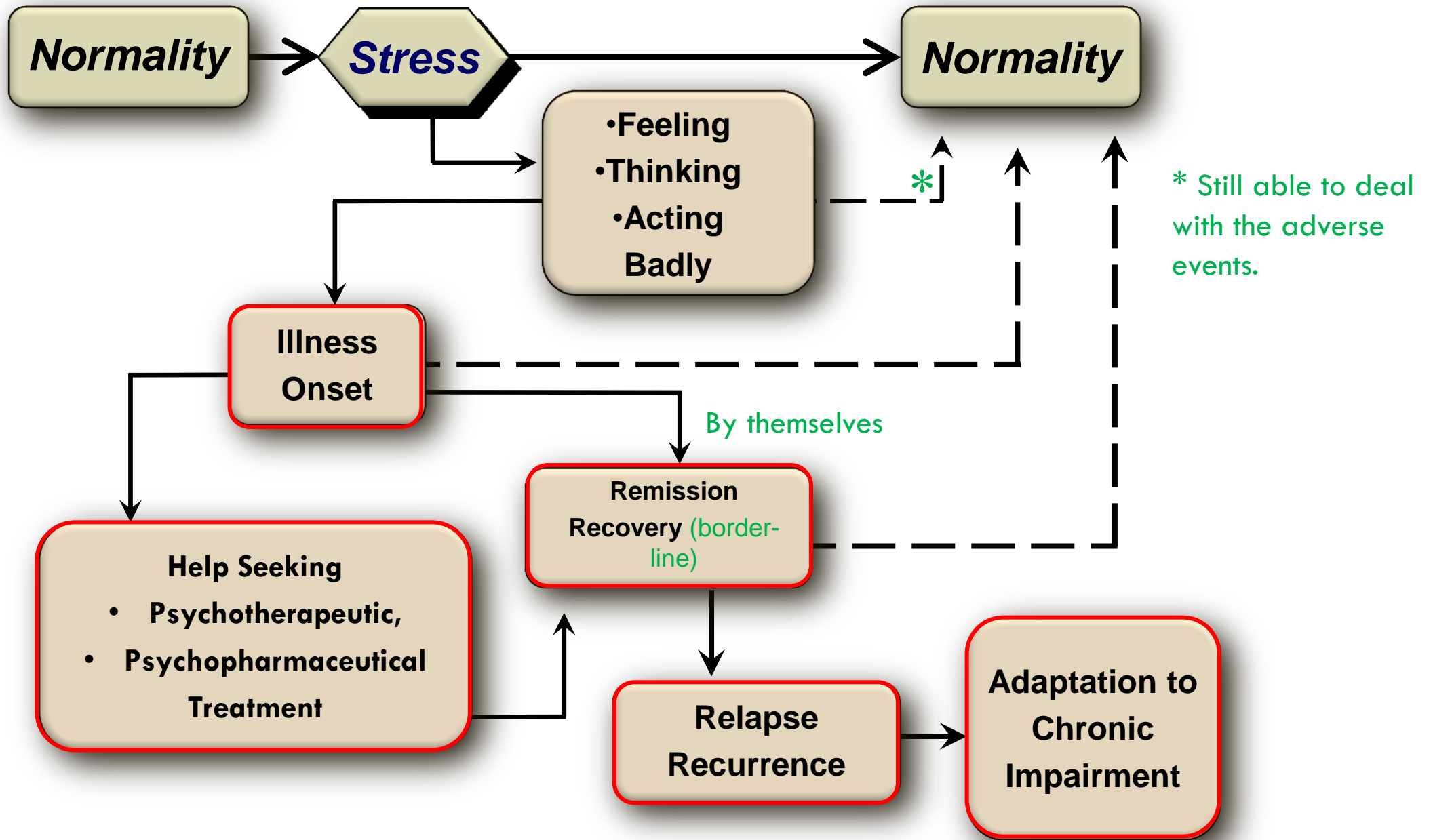
Stigma will lead to negative discrimination

Factors contributing to mental illnesses (when you know the factors you'll be able to prevent)



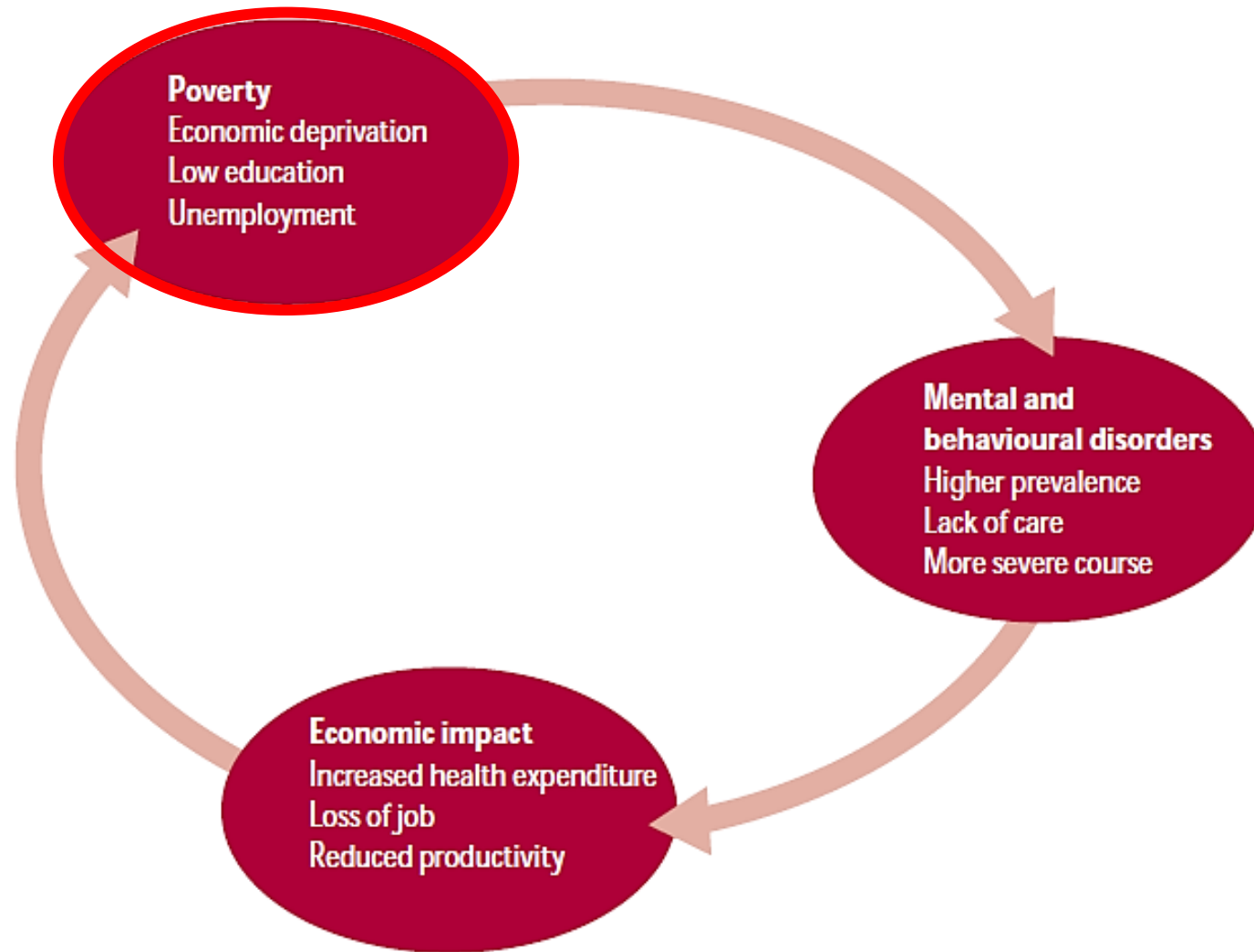
Most of mental illnesses have their roots during the childhood period

Interaction between biological, psychological and social factors in the development of mental disorders



Career model of mental illness (Carol S. Aneshensel. Handbook of sociology of mental illnesses.)

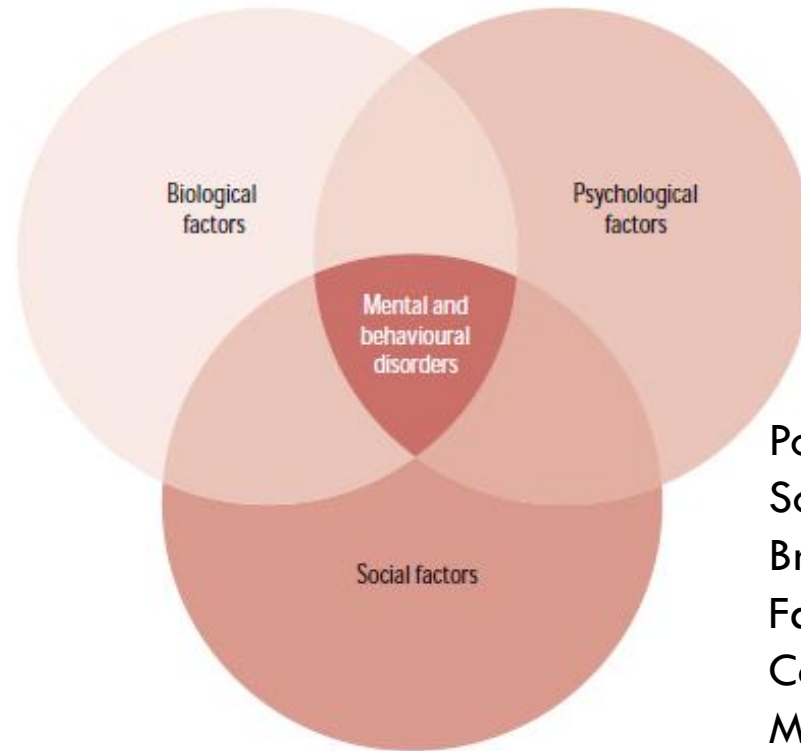
The link between poverty and mental illnesses



The vicious circle of mental disorders and poverty

Primary prevention: Exerting control over contributing factors

Age
Sex
Major physical diseases



Coping skills
Low self-concept and self-esteem

Poverty
Social deprivation
Broken homes
Faulty parenting
Conflicts and disasters
Major life events

Question of practicality:

How many of the factors can be effectively addressed?

What conditions could be prevented at primary level?

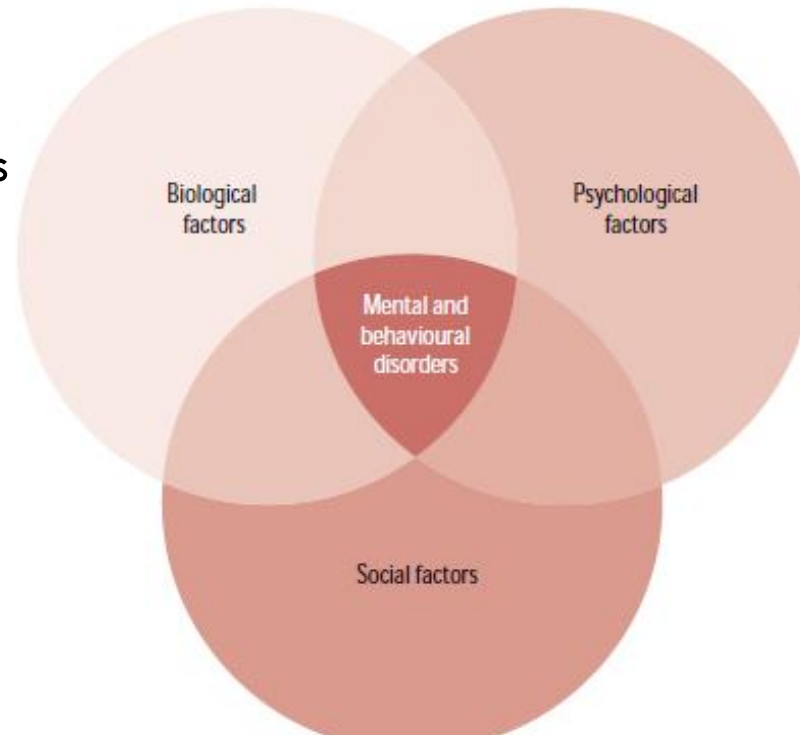
How many conditions could be prevented at primary level?

Primary prevention: Exerting control over contributing factors

Age

Sex

Major physical diseases



Coping skills

Low self-concept and self-esteem

Poverty

Social deprivation

Broken homes

Faulty parenting

Conflicts and disasters

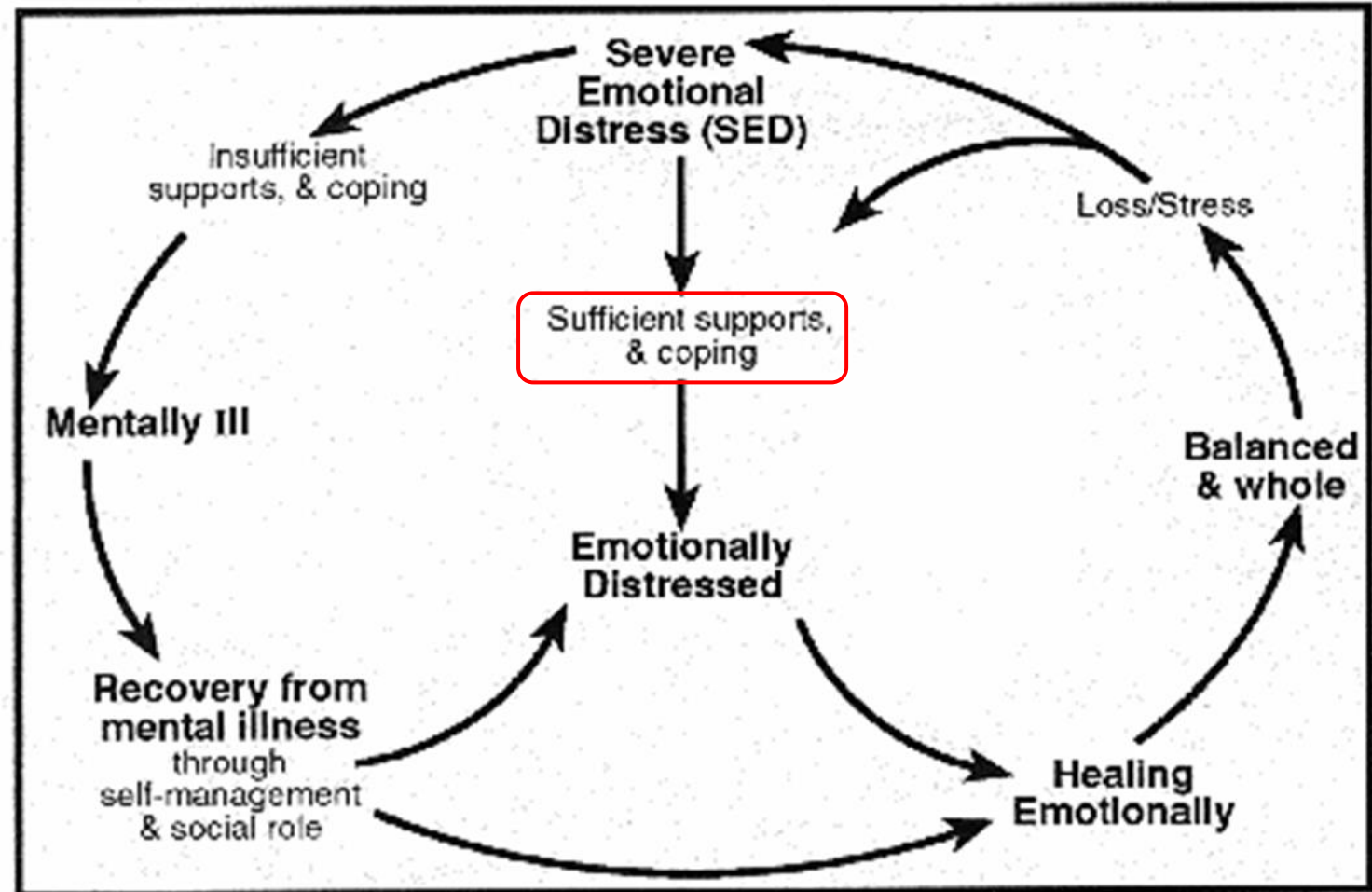
Major life events

- Little or no evidence about the primary prevention of **depression, schizophrenia, cognitive impairment** of idiopathic origin (the most common disorders unfortunately)
- Possibility of primary prevention of a proportion of cases related to **childhood behavior disorders and substance abuse**
- we can only strengthen with the coping mechanism (resilience), other factors it's difficult to interfere

Secondary prevention (most common and effective)

- Early detection
- Appropriate management
- Follow up
- Support component

**PROMOTE RECOVERY
PREVENT RELAPSE**



Empowerment Model of Recovery from Mental Illness

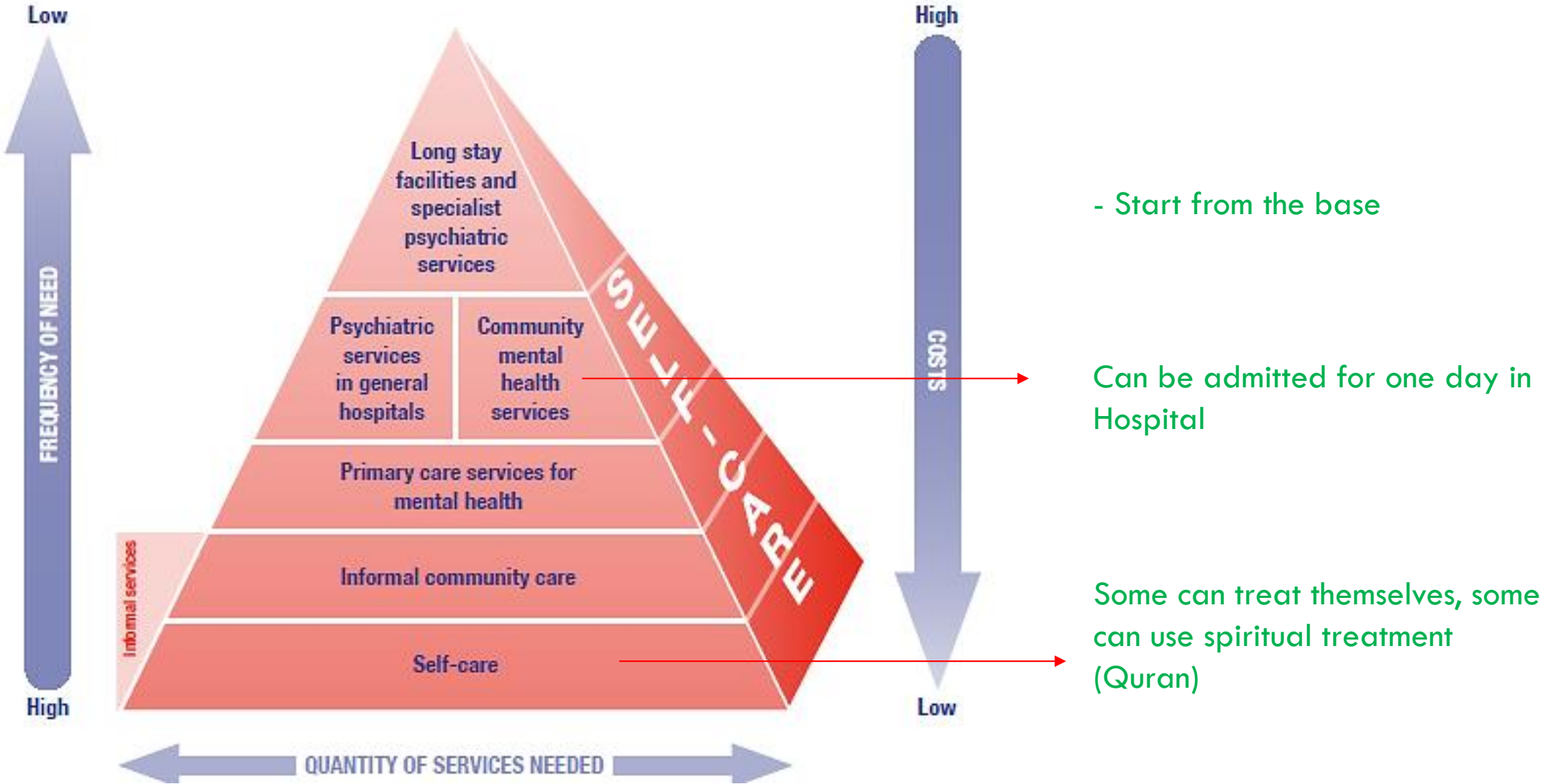
by Daniel B. Fisher, M.D., Ph.D. and Laurie Aherm
©1998 National Empowerment Center, Inc.

Principle of treatment

- Early identification of the disorder to ensure good prognosis
- Provide care at PHC (primary health care) supported by referral center
- Limit institutionalization and shorten its duration (in the past, and still in some countries, those who are mentally ill are forced to be admitted in special hospitals usually on the border of the city, with limited visits and high security – inhuman. In England, 1990, they applied the principle of limiting the institutionalizations. They closed the mental hospitals, sent patients who have families to their families, and those who don't they paired them with other patients and provide them jobs and homes. When they can seek help from general practitioners)
- Collaboration with other sectors for support and integration:
 - **Education:** measures to complete at least primary education in friendly schools
 - **Employment:** gainful employment in a work environment free from discrimination
 - **Housing:** subsidiary cost, prevent discrimination in location of housing or geographic segregation
 - **Social development/affairs:** welfare coverage
 - **Criminal code:** no incarceration of mentally ill and providing mental services to prisoners

Services for mental health

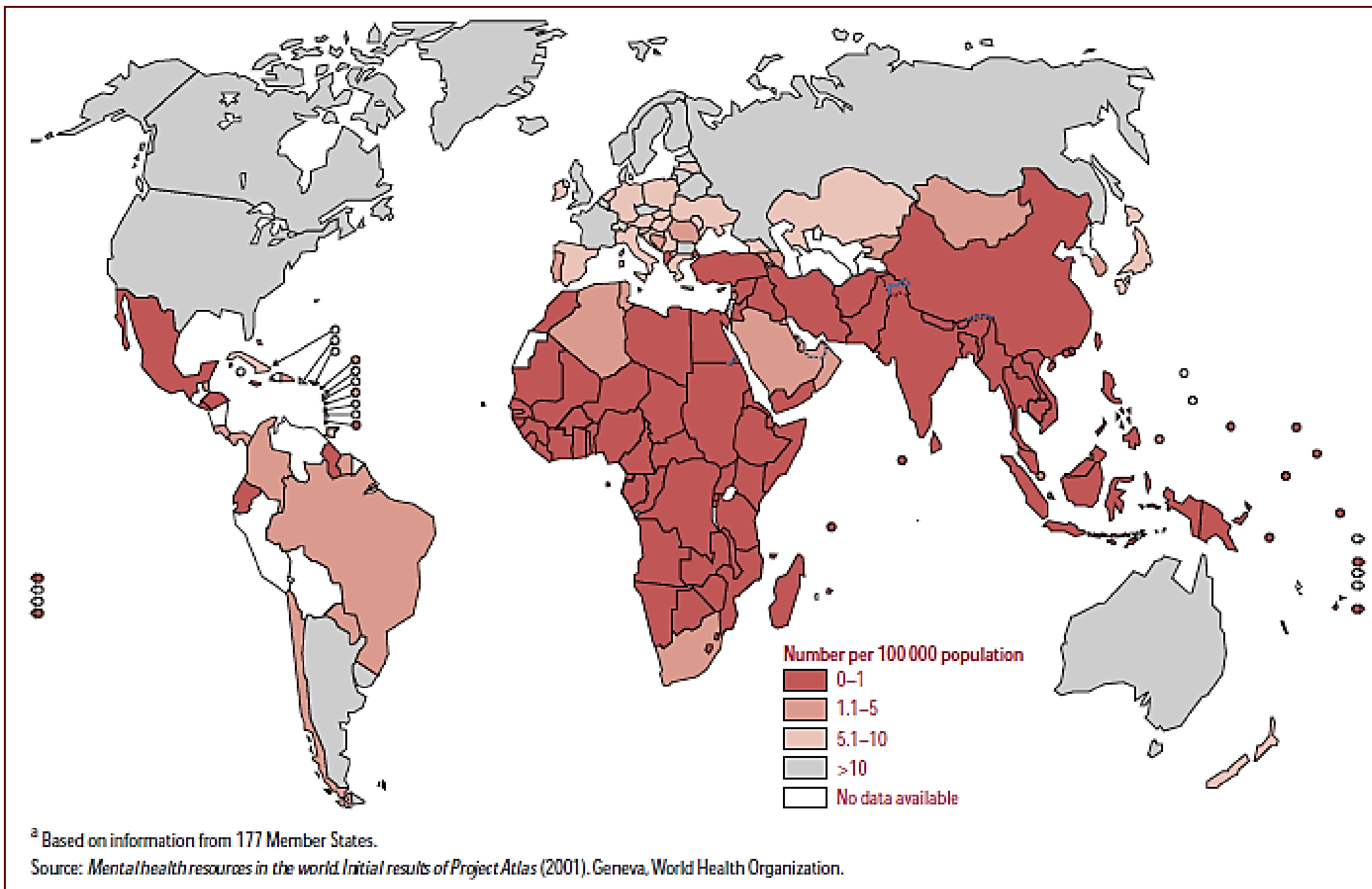
Figure 1.1 WHO service organization pyramid for an optimal mix of services for mental health



Integration of mental health into primary health care: Justification

- Affordable and cost effective for patients and governments
- Inter-relationship between physical and mental disorders (somatization, physical causes can be treated in PHC e.g. depression caused by sever & chronic headache)
- High burden of mental disorders (disproportionate to specialized care)
- Increase access to care for mental disorders
- Narrow treatment gap for mental disorders (gap 32% - 78%) treatment gap: number of people with active disorder not on treatment or on inadequate treatment, expressed as a percentage of the total number with the active disorder. (Medscape)
- Reduces stigma and discrimination
- Associated with desirable outcome as other levels of care

Figure 4.4 Number of psychiatrists per 100 000 population, 2000^a

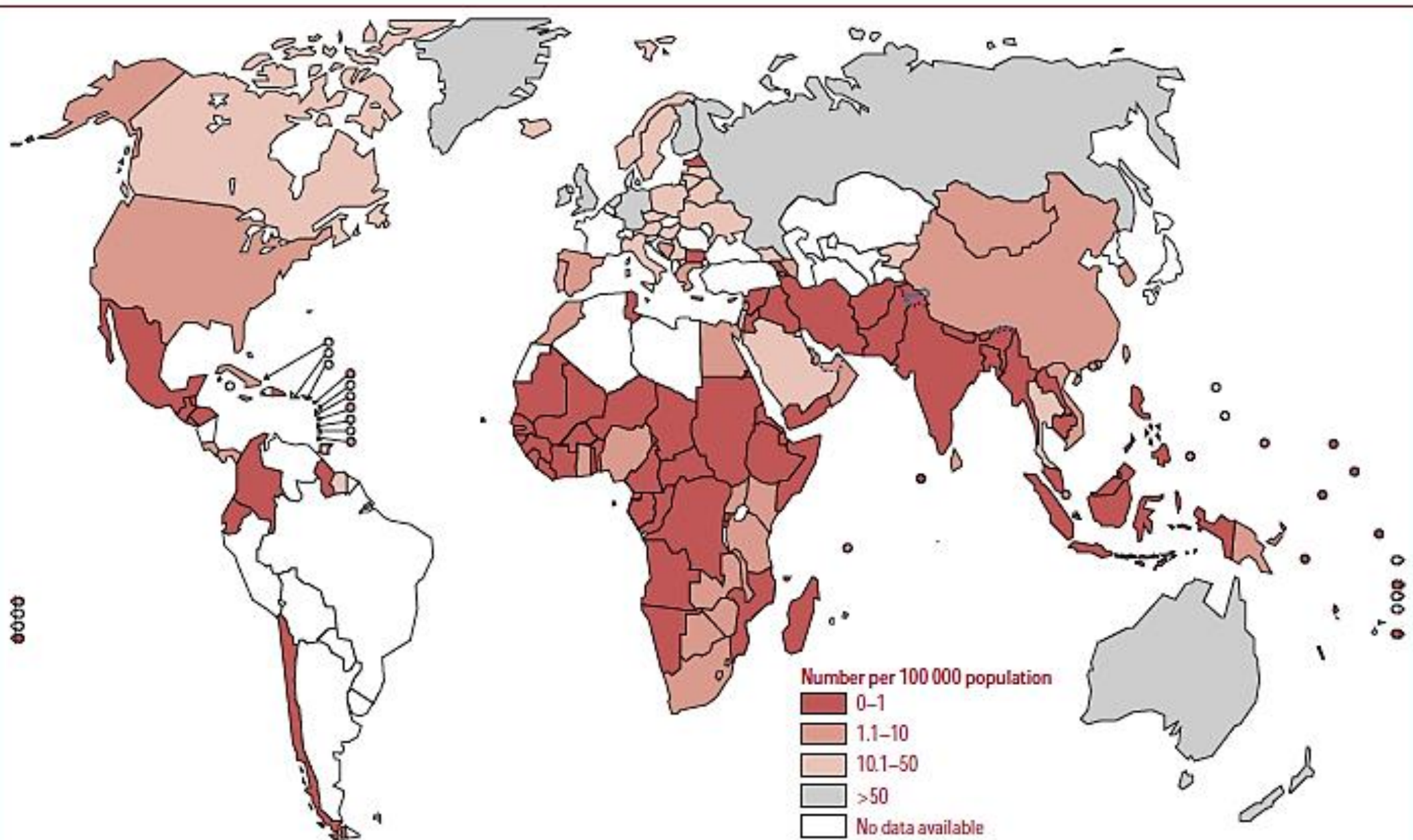


In KSA, for each 100,000 mental patients, there are only 10 specialized psychiatric physicians.

^a Based on information from 177 Member States.

Source: *Mental health resources in the world. Initial results of Project Atlas (2001)*. Geneva, World Health Organization.

Figure 4.5 Number of psychiatric nurses per 100 000 population, 2000^a



In KSA, for each 100,000 mental patients, there are only 50 psychiatric nurses.

^a Based on information from 157 Member States.

Source: *Mental health resources in the world. Initial results of Project Atlas* (2001). Geneva, World Health Organization.

Integration of mental health into primary health care: Main strategies

- Developing policy to incorporate mental health care into PHC
- Advocacy to improve attitudes and behavior regarding mental health care
- Training of PHC workers in screening for mental disorders
- Availing specialists and facilities readily available to support PHC physicians
- Access of PHC physicians to essential psychotropic medications
- Presence of a mental health-service coordinator in PHC clinics
- Collaboration with other government non-health sectors, nongovernmental organizations, village and community health workers, and volunteers
- Adequate funding for necessary staff and mental health specialists

Mental disorders seen in general clinics in KSA

- Al-Khobar, 22% of health clinic patients had mental disorders such as depression and anxiety, however only 8% were diagnosed.
- In Riyadh, 30% to 40% of those seen in primary care clinics had mental disorders and again, **most were not diagnosed**.
- In central Saudi Arabia, 18% of adults were found to have minor mental morbidities

Source: Integrating mental health in PHC, WHO - 2008

Low detection rate


Integration of mental health into PHC: experience of Eastern Province (2003 – 2006)

Training of PHC physicians at two levels of skills:

- First level (one month – 17 PHC physician): **basic training** in mental health issues, diagnosis of common mental disorders, appropriate use of psychotropic medications, and provision of brief psychotherapeutic interventions.
- Second level (2 PHC physicians): **training is more intensive and advanced**, enabling graduates to manage more complicated mental health problems.

Source: Integrating mental health in PHC, WHO - 2008

Integration of mental health into PHC: experience of Eastern Province (2003 – 2006)

- PHC (17-physicians):
 - Provide mental health services,
 - Engage families in consultation
 - Provide families with information for patient support
 - Referral of complex cases
 - Community Mental Health Centres (specialized physicians)
 - Two at province level
 - Referral source for complex cases
 - Diagnosis and treatment
 - Supervise PHC practitioners in the area
- 

KSA allocates 4% of healthcare budget to mental illnesses; 78% is directed to mental Hospitals (at the top of the pyramid, in summary, huge amount of funding goes to small portion of patients)

(Mental health system in KSA. Neuropsychiatric Disease and Treatment 2013:9 1121–1135)

Tertiary prevention

- Long term treatment (empowering families)
- Social and welfare support (educating the community)
- Care for in a community setting, day care centers
- Immediate care for crisis and relapse
- Long term stay in specialized hospital is the last option (not all severe cases, but those who're considered violent)

Summary

1. Mental health is not being free of mental disorders
2. Mental illnesses are of considerable magnitude, likely to increase in the future and result in serious consequences to individuals and family
3. Mental illnesses in KSA contribute to 27.9% of YLD and 15.5% of DALYs
4. Mental illnesses adversely affect the life of people affected, their families and place a significant burden on the country's economy and healthcare system
5. Stigma is associated with mental illnesses resulting in refusal of seeking care and delay recovery
6. Stigma associated with mental illnesses limits access to quality care, increases isolation of patients and families, delay recovery

Summary

7. Mental illnesses result from the interaction of several factors and have its roots during the childhood period
8. KSA allocate 4% of healthcare budget to mental illnesses; 78% is directed to mental hospitals
9. Mental illnesses that form the main burden are not preventable at the primary level based on evidence
10. Most of childhood behavioral disorders are preventable at the primary level by good parenting, interactive schools and supporting social network
11. Mental health services are provided at PHC, community hospitals, general hospitals and mental hospitals
12. Detection, treatment and follow up of mental illness is cost effective in view of their presence in PHC, shortage and cost of specialized care