

MENTAL DISORDERS, TREATMENT GAP, AND UNIVERSAL HEALTH CARE IN THE AMERICAS

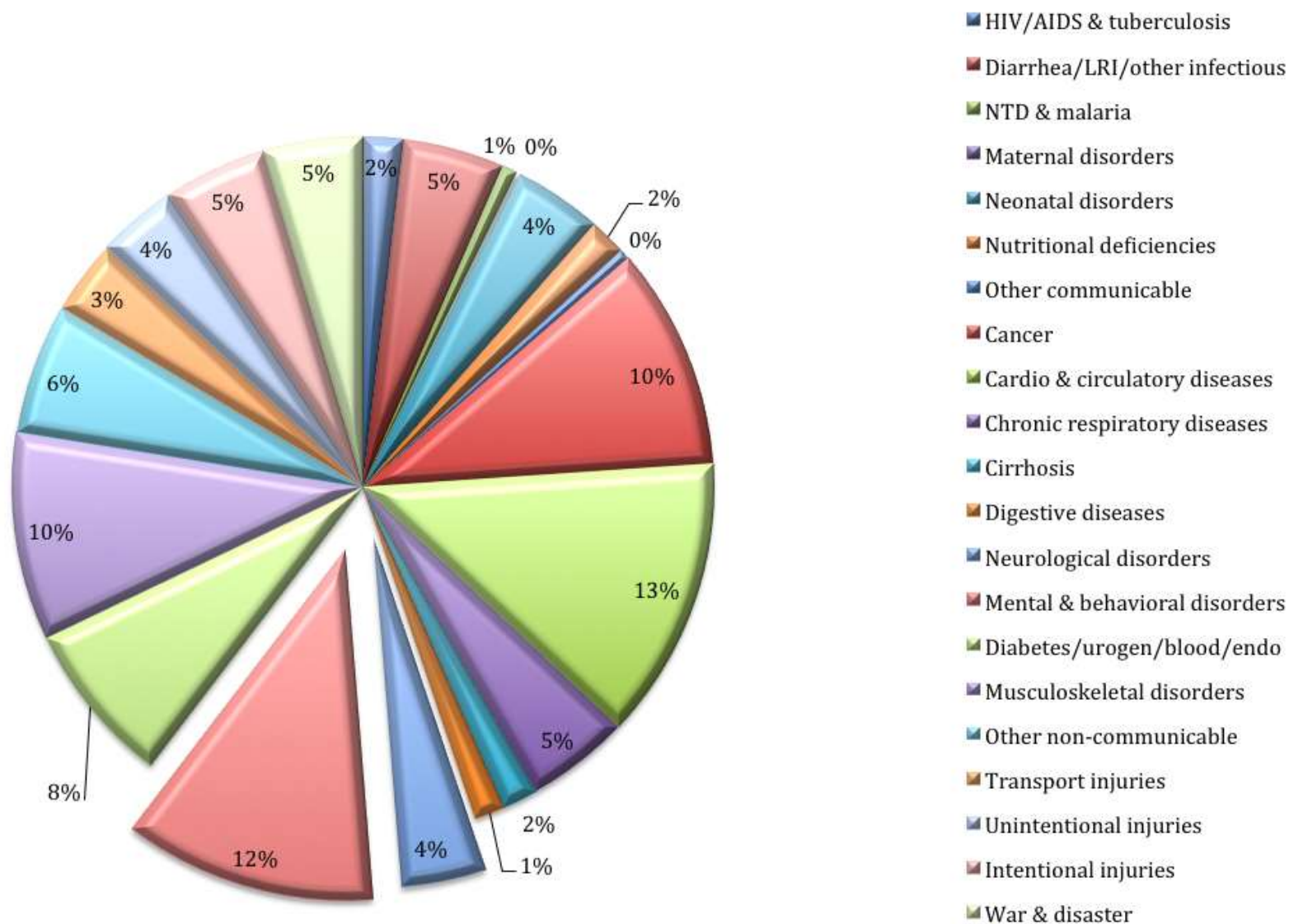
Robert Kohn, MD

Professor, Psychiatry and Human Behavior
Warren Alpert Medical School of Brown University

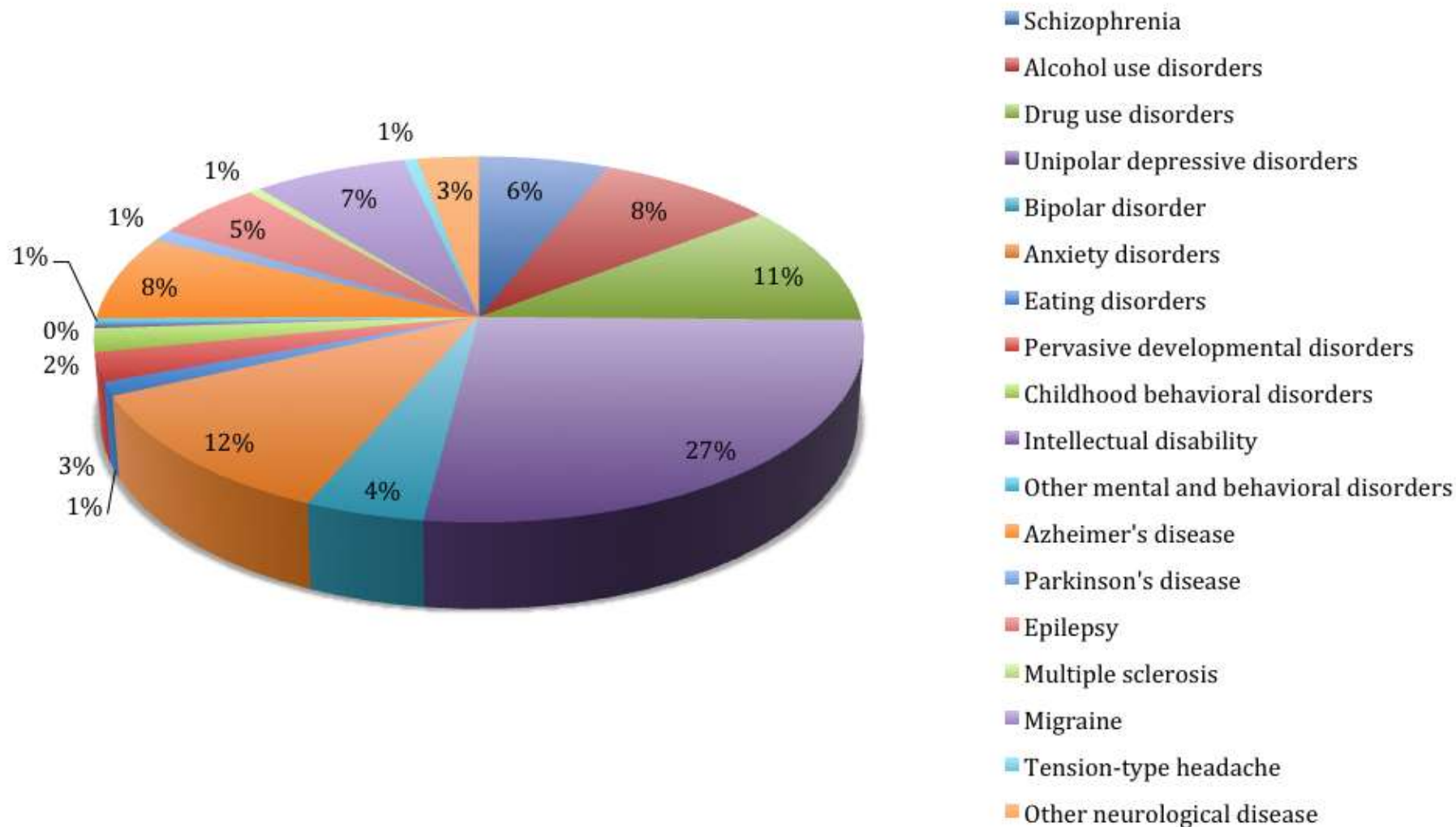
Treatment Gap in the Americas

THE BURDEN OF NEUROPSYCHIATRIC DISORDERS

DALY neuropsychiatric disorders relative to other disorders in the Americas – 2010



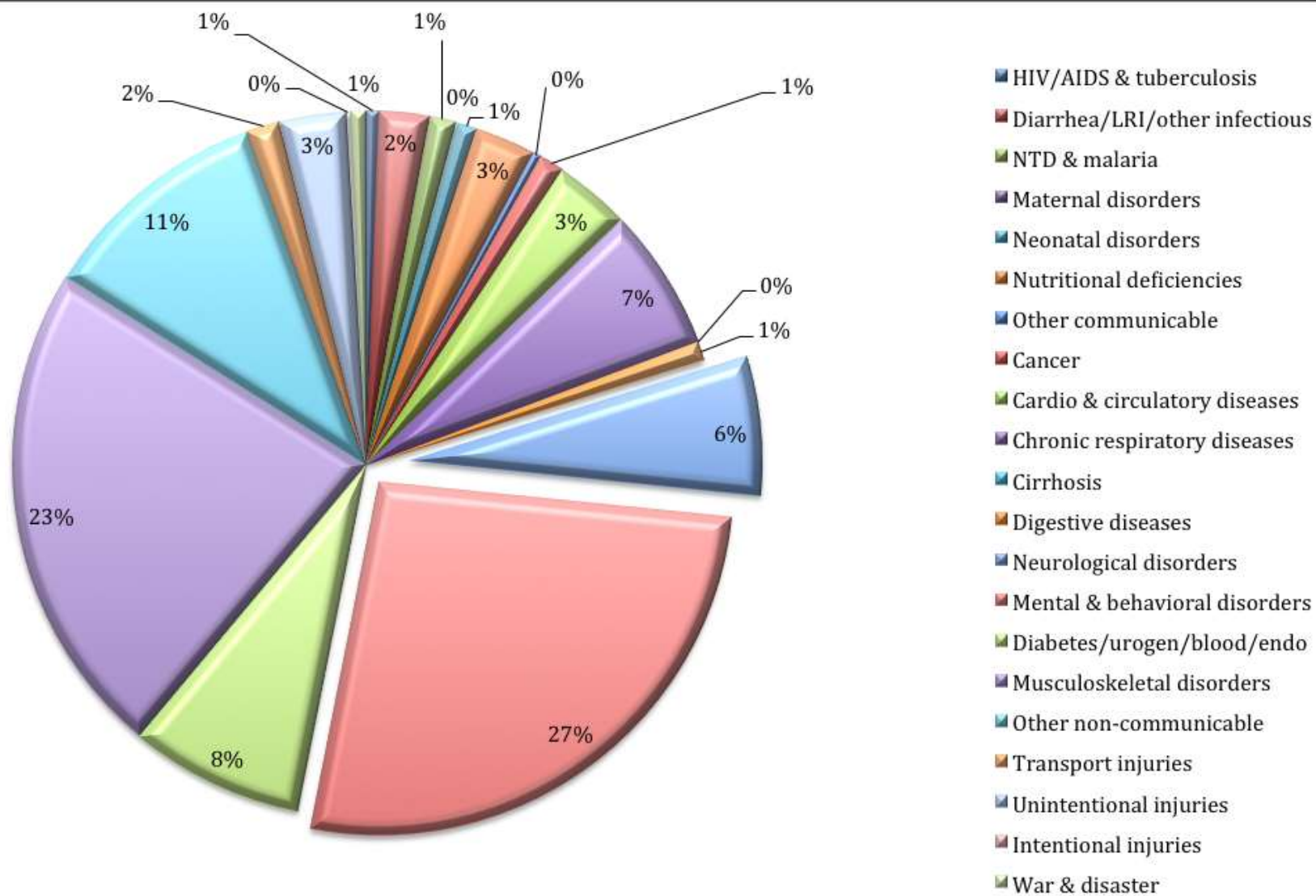
Distribution of DALY among neuropsychiatric disorders in the Americas – 2010



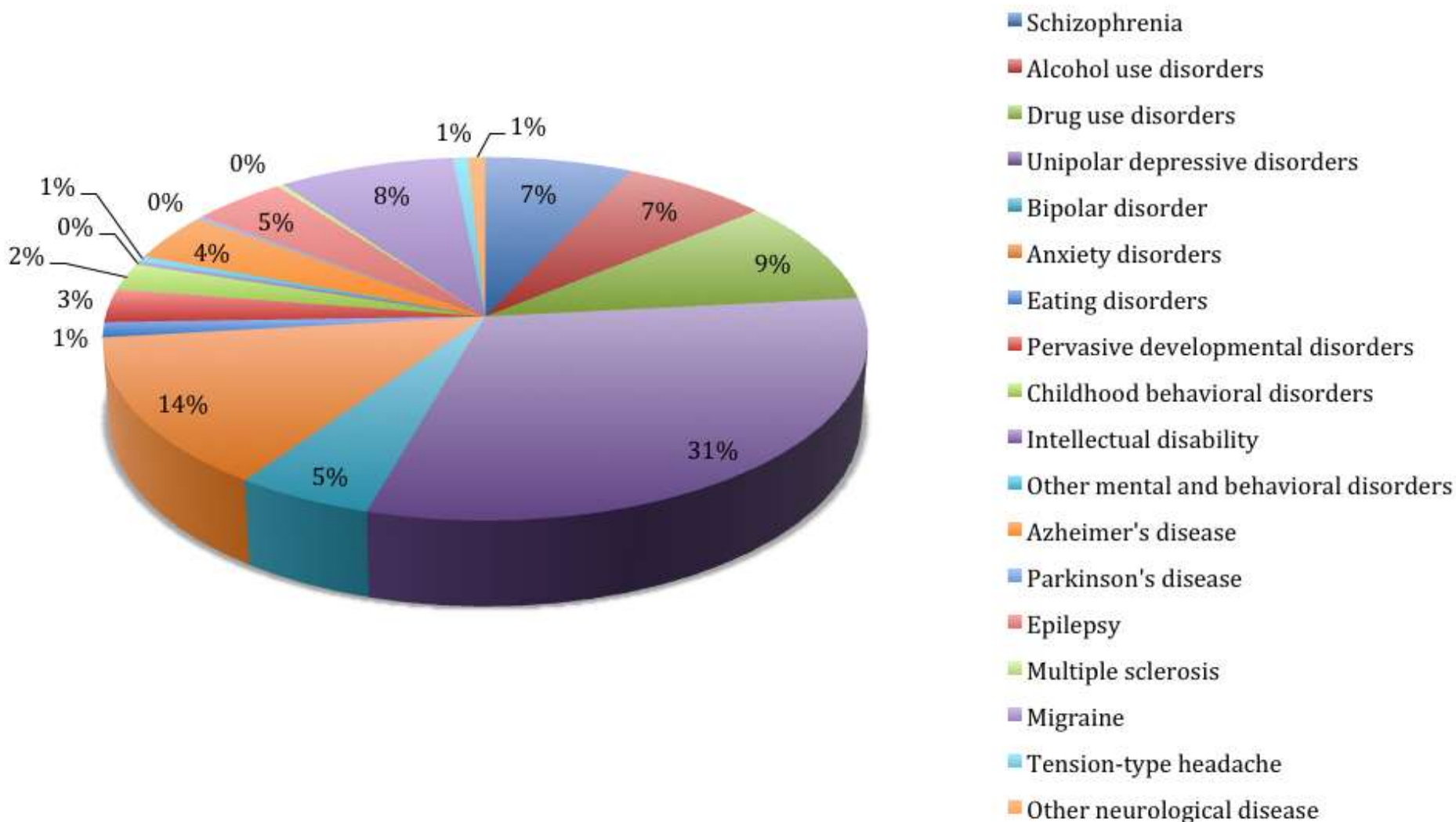
Percent of DALY for neuropsychiatric disorders and other conditions of interest to mental health in the Americas - 2010

Neuropsychiatric Disorders	Total	Male	Female	0-14	15-59	60+	NA	LAC
All Neuropsychiatric Disorders	15.5	13.7	17.8	8.2	21.4	9.3	18.7	13.9
All Mental & Behavioral Disorders	11.6	10.7	12.9	5.9	17.8	4.0	13.6	10.6
Schizophrenia	1.0	1.0	0.9	0	1.5	0.4	1.3	0.8
Alcohol use disorders	1.3	1.9	0.5	0.1	2.2	0.4	1.4	1.3
Drug use disorders	1.7	2.1	1.2	0.2	3.0	0.1	2.5	1.2
Unipolar depressive disorders	4.2	2.8	5.8	2.5	6.0	2.0	4.4	4.1
Bipolar disorder	0.7	0.6	0.8	0	1.2	0.1	0.7	0.7
Anxiety disorders	1.8	1.1	2.6	1.0	2.7	0.7	2.2	1.6
Eating disorders	0.2	0	0.4	0	0.3	0	0.3	0.1
Pervasive developmental disorders	0.4	0.6	0.2	0.6	0.5	0.1	0.5	0.4
Childhood behavioral disorders	0.3	0.4	0.2	1.3	0.2	0	0.2	0.4
Intellectual disability	0	0	0.0	0.1	0.1	0	0.1	0
Other mental and behavioral disorders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Neurological Disorders	3.9	3.1	4.9	2.2	3.7	4.6	5.1	3.3
Alzheimer's disease	1.2	0.8	1.6	0	0.1	3.6	2.5	0.5
Parkinson's disease	0.2	0.2	0.1	0	0	0.5	0.3	0.1
Epilepsy	0.8	0.8	0.8	1.2	1.0	0.3	0.4	1.0
Multiple sclerosis	0.1	0.1	0.1	0	0.1	0.1	0.2	0
Migraine	1.1	0.7	1.6	0.4	1.8	0.3	1.0	1.2
Tension-type headache	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1
Other neurological disease	0.5	0.4	0.5	0.6	0.4	0.5	0.6	0.4
Other Conditions of Interest								
Self-harm	1.3	1.8	0.6	0.2	2.2	0.4	1.8	1.0
Violence	3.5	5.5	1.0	1.2	6.0	0.3	1.3	4.7

YLD neuropsychiatric disorders relative to other disorders in the Americas – 2010



Distribution of YLD among neuropsychiatric disorders in the Americas - 2010



Percent of YLD for neuropsychiatric disorders and other conditions of interest to mental health in the Americas - 2010

Neuropsychiatric Disorders	Total	Male	Female	0-14	15-59	60+	NA	LAC
All Neuropsychiatric Disorders	32.8	32.3	33.3	24.8	39.6	19.1	32.5	33.1
All Mental & Behavioral Disorders	26.5	27.0	26.1	20.0	33.6	11.2	26.6	26.5
Schizophrenia	2.3	2.8	1.9	0	3.1	1.2	2.7	2.0
Alcohol use disorders	2.3	3.9	0.9	0.4	3.3	0.6	2.2	2.4
Drug use disorders	3.1	4.4	1.9	0.1	4.7	0.1	3.4	2.9
Unipolar depressive disorders	10.2	8.0	12.2	8.6	12.2	6.0	9.5	10.7
Bipolar disorder	1.7	1.6	1.8	0.1	2.5	0.5	1.5	1.8
Anxiety disorders	4.4	3.3	5.5	3.4	5.5	2.2	4.7	4.3
Eating disorders	0.4	0	0.8	0.1	0.7	0.1	0.7	0.3
Pervasive developmental disorders	1.0	1.6	0.4	2.2	1.0	0.4	1.0	1.0
Childhood behavioral disorders	0.8	1.2	0.4	4.6	0.4	0	0.5	1.0
Intellectual disability	0.1	0.1	0.1	0.3	0.1	0	0.1	0.1
Other mental and behavioral disorders	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Neurological Disorders	6.3	5.4	7.2	4.8	6.0	7.9	6.0	6.6
Alzheimer's disease	1.4	1.1	1.7	0	0.2	5.1	2.2	0.9
Parkinson's disease	0.1	0.1	0.1	0	0	0.3	0.1	0.1
Epilepsy	1.5	1.6	1.4	3.3	1.5	0.6	0.6	2.0
Multiple sclerosis	0.1	0.1	0.1	0	0.1	0.1	0.2	0.0
Migraine	2.8	2.1	3.4	1.4	3.7	1.0	2.2	3.1
Tension-type headache	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.2
Other neurological disease	0.3	0.2	0.3	0	0.2	0.6	0.3	0.2
Other Conditions of Interest								
Self-harm	0	0	0	0	0	0	0	0
Violence	0.2	0.3	0.1	0	0.2	0	0.1	0.2

Treatment Gap in the Americas

RESOURCES IN MENTAL HEALTH IN THE AMERICAS FOR ADULTS

Financing mental health care in Latin America and the Caribbean from WHO-AIMS

Sub-Region	Health Budget %	Mental Hospital Budget %
Latin America & Caribbean Median	2.25	83
Range	0.2-9.00	26-100
N	32	25
Caribbean Median	3.00	91
Range	0.38-9.00	50-100
N	17	10
Central American Median	1.00	88
Range	1.00-3.00	26-94
N	7	7
South American Median	2.14	65.5
Range	0.20-7.00	22-98
N	7	6
Mexico	2.00	80
Brazil	2.35	49

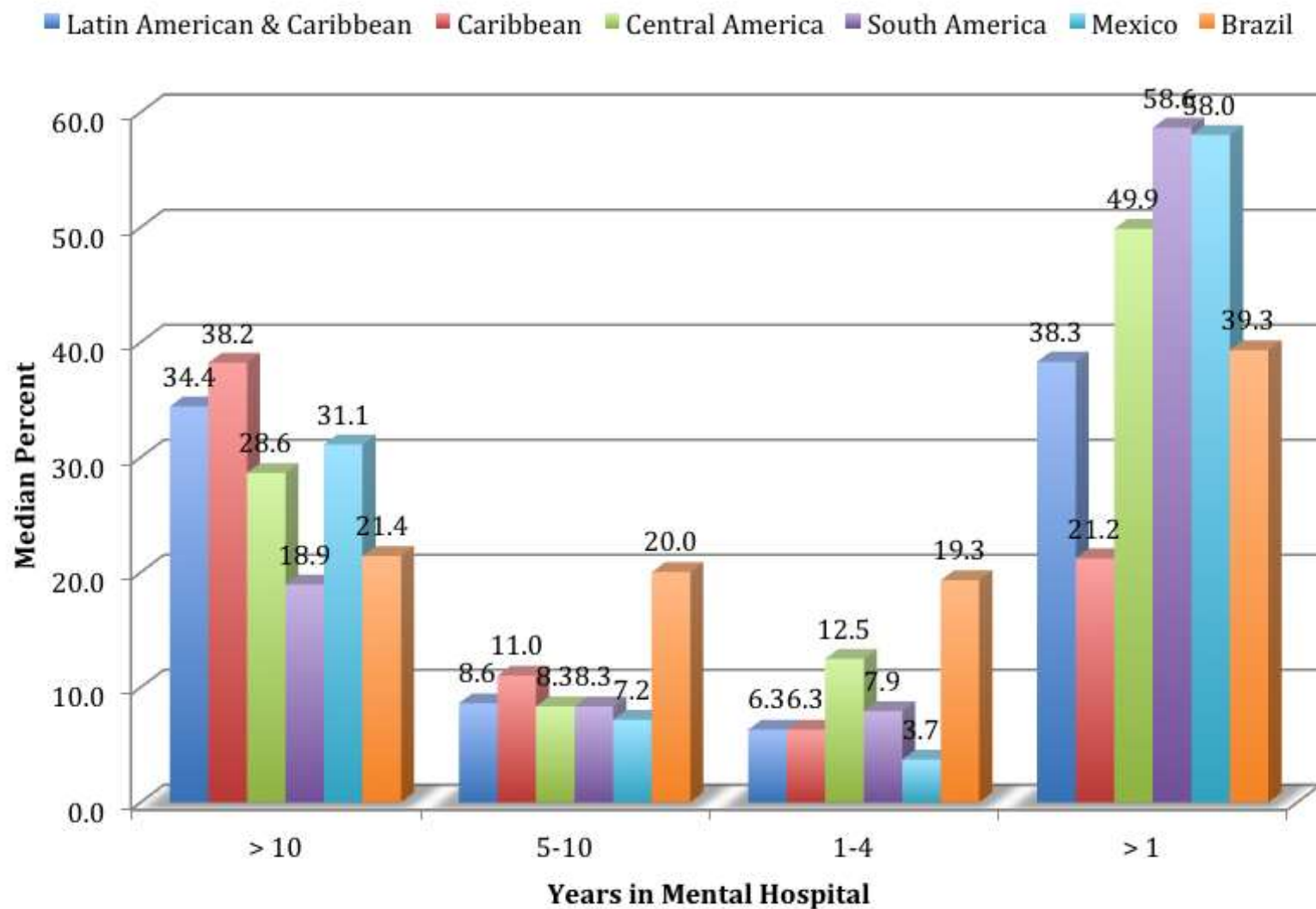
Utilization of mental health care inpatient services in Latin America and the Caribbean from WHO-AIMS

Country		Mental Hospital Beds per 100,000	5 Year Change Mental Beds	Community Units per 100,00	Community Beds per 100,000	% Inpatient Beds Mental Hospital
Latin America & Caribbean Median		14.39	0	0.20	1.33	92.60
Range		0-199.63	-63-13	0-20.76	0-189.55	0-100
N		34	33	34	34	32
Caribbean Median		32.00	0	0.33	2.97	91.40
Range		0-199.63	-55-0	0-20.76	0-226.66	0-100
N		19	19	19	19	17
Central American Median		7.07	0	0.04	0.27	96.7
Range		7	7	7	7	7
N		2.64-22.13	-55-10	0-0.59	0-1.98	89.8-100
South American Median		9.56	2.5	0.15	0.62	90.20
Range		3.92-50.87	-22-13	0.01-0.96	0.26-11.46	50.2-97.4
N		7	6	7	7	7
Mexico		5.12	3	0.01	0.14	97.30
Brazil		22.84	-31	0.06	1.13	95.30

Utilization of mental health care outpatient services in Latin America and the Caribbean from WHO-AIMS

Country	Outpatient Facilities 100,00	Outpatient Users per 100,000	Average Outpatient Contacts	Follow-up Community Care %	Mobile Clinic Teams %	Day Programs per 100,000	Day Users per 100,000
Latin America & Caribbean Median	2.66	961.11	3.48	26	10	0.01	2.96
Range	0.23-103.78	59.88-4560.24	1.16-35.82	0-100	0-100	0-1.16	0-60.98
N	34	30	28	34	33	34	26
Caribbean Median	5.20	935.88	5.03	100	25	0	0
Range	0.27-103.78	59.88-4560.24	1.16-35.82	0-100	0-100	0-1.16	0-18.50
N	19	17	13	19	19	19	12
Central American Median	0.60	563.90	2.82	15	10	0.02	3.21
Range	0.29-2.66	145.06-4560.24	1.16-5.00	0-100	0-100	0-0.40	0-5.81
N	7	6	7	7	6	7	7
South American Median	0.71	1192.51	3.00	15	9	0.12	18.21
Range	0.23-7.77	239-3948.20	1.92-4.53	0-72	0-16	0-0.81	0.92-27.06
N	7	7	7	7	7	7	5
Mexico	0.53	310.88	4.28	31	4	0	0.26
Brazil	0.59			64	10	0.44	60.98

Years hospitalized in mental hospital in Latin America and the Caribbean from WHO-AIMS



Treatment Gap in the Americas

SERVICE UTILIZATION AND THE TREATMENT GAP IN THE AMERICAS AMONG ADULTS

Treatment Gap

- The treatment gap represents the absolute difference between the true prevalence of a disorder and the treated proportion of individuals affected by the disorder.
- The treatment gap may be expressed as the percentage of individuals who require care but do not receive treatment.

12-month prevalence rate of mental disorders in selected psychiatric epidemiologic prevalence studies in the Americas for affective, anxiety and substance use disorders and by severity of disorder

Disorder	Brazil	Canada	Chile	Colombia	Guatemala	Mexico	Peru	USA
Anxiety	19.9	4.7	9.3	14.4	2.1	8.4	7.9	19.0
Affective	11.0	5.2	9.9	7.0	1.4	4.7	3.5	9.7
Substance	3.6	11.0	10.4	2.8	3.0	2.3	1.7	3.8
Any	29.6	18.7	17.0	21.0	7.2	13.4	13.5	27.0
Mild	33.1	44.3	18.9	35.9	57.2	40.5	41.2	35.7
Moderate	33.0	32.4	40.3	41.0	15.2	33.9	41.6	39.2
Severe	33.9	23.3	40.8	23.1	27.6	25.7	17.2	25.2

Service Utilization for any disorder by severity and type of service provider, and treatment gap (no treatment)

	Total	Any disorder	Severe	Moderate	Mild	No Disorder
Brazil-WMH						
General Medical	3.3	8.6	12.0	7.7	5.9	1.1
Mental Health	5.6	14.0	23.2	12.3	6.4	2.0
Health Care	8.0	19.7	30.2	17.2	11.6	3.0
Non-Health Care	2.0	5.2	9.5	4.6	1.5	0.7
Any Treatment	9.0	21.9	32.8	20.0	12.7	3.6
No Treatment	91.0	78.1	67.2	80.0	86.3	96.4
Canada-CCHS						
General Medical	5.4	17.5	42.0	17.7	4.6	2.8
Mental Health	5.4	16.4	40.3	16.6	4.0	3.0
Health Care	8.3	24.1	55.5	2.5	7.5	4.8
Non-Health Care	2.9	7.6	18.8	7.0	2.2	1.8
Any Treatment	9.5	25.9	58.0	27.1	8.5	5.8
No Treatment	90.5	74.1	42.0	72.9	91.5	94.2
Chile-CPPS*						
General Medical	17.7	34.1	57.5	41.9	17.4	12.9
Mental Health	5.6	13.1	29.4	9.6	5.0	3.5
Health Care	20.1	38.5	65.0	44.3	20.3	14.8
Non-Health Care	1.2	2.7	1.0	4.8	3.1	0.8
Any Treatment	20.1	38.5	65.0	44.3	20.3	14.8
No Treatment	79.9	61.5	39.8	52.0	60.6	95.2
Columbia-WMH						
General Medical	2.3	6.0	9.3	6.1	2.7	1.4
Mental Health	3.0	7.7	27.8	10.3	7.8	3.4
Health Care	5.0	13.2	25.7	11.5	8.4	3.0
Non-Health Care	0.7	1.7	4.6	0.8	0.4	0.5
Any Treatment	5.5	14.0	27.8	10.6	8.2	3.4
No Treatment	94.5	86.1	72.2	89.4	91.8	96.6

Service Utilization for any disorder by severity and type of service provider, and treatment gap (no treatment)

	Total	Any disorder	Severe	Moderate	Mild	No Disorder
Guatemala*						
General Medical	2.2	6.3	9.1	6.1	0.4	2.8
Mental Health	3.0	3.8	2.3	4.6	6.6	2.1
Health Care	4.5	8.9	9.4	10.6	7.1	4.2
Non-Health Care	5.7	10.4	8.1	19.1	10.5	5.3
Any Treatment	8.7	15.1	13.1	19.1	17.1	8.3
No Treatment	91.3	84.9	86.9	80.9	82.9	91.7
Mexico-WMH						
General Medical	1.7	6.5	8.1	6.8	4.9	1.1
Mental Health	2.8	10.2	25.8	17.9	11.9	1.8
Health Care	4.2	15.8	20.2	18.6	10.2	2.7
Non-Health Care	1.2	3.9	3.6	4.1	3.5	0.9
Any Treatment	5.1	18.6	23.8	20.8	12.6	3.4
No treatment	94.9	81.4	76.2	79.2	87.4	96.6
Peru-WMH						
General Medical	2.3	4.8	7.7	5.3	3.1	1.6
Mental Health	4.7	11.7	21.4	8.0	11.5	2.8
Health Care	7.0	16.3	27.8	13.3	14.6	4.4
Non-Health Care	2.3	5.4	9.7	6.3	2.6	1.4
Any Treatment	8.6	19.5	32.8	18.1	15.4	5.6
No treatment	91.4	80.5	67.2	81.9	84.6	94.4
USA-NCS-R						
General Medical	9.3	22.8	32.1	23.6	18.9	4.7
Mental Health	8.8	21.7	41.9	20.7	13.3	4.4
Health Care	15.3	36.0	52.3	34.1	22.5	8.1
Non-Health Care	5.6	13.2				
Any Treatment	17.9	41.1	59.7	39.9	26.2	10.1
No treatment	82.1	58.9	40.3	60.1	73.8	90.3

Treatment gap by specific disorder

Disorder	Brazil	Canada	Chile*	Colombia	Guatemala	Mexico	Peru	USA	Mean	Median
Non-affective psychosis			46.3		85.1			42.0	57.8	46.3
Major depression		43.0	37.6		76.2	73.9		43.2	54.8	43.2
Dysthymia			29.8		100			32.5	54.1	32.5
Mania disorder		48.0	52.6		86.9	73.6		44.5	61.1	52.6
Generalized anxiety			34.0		100	85.9		47.7	66.9	66.8
Panic disorder		67.0	28.7			70.1		34.6	50.1	50.8
Agoraphobia		61.6	58.3		76.7	82.5		47.4	65.3	61.6
Post-traumatic stress disorder			35.2		95.5			42.6	57.8	42.6
Social phobia		58.6	61.5		46.4	83.7		54.4	60.9	58.6
Obsessive-compulsive			27.6		88.8				58.2	58.2
Alcohol abuse/dependence		87.4	85.1		91.3	76.6		59.6	80.0	85.1
Drug abuse/dependence		77.5	50.0					55.3	60.9	55.3
Any disorder	78.1	74.1	61.5	86.0	84.9	81.4	80.5	58.9	75.7	79.3

Days out of role per year (mean) by severity of disorder

	Severe	Moderate	Mild
Canada	83.6	16.3	5.1
Colombia	53.0	33.7	15.6
Mexico	42.8	26.3	11.7
USA	135.9	65.3	35.7

The percent of individuals with a disorder that have contact with treatment in the first year of being diagnosed and the median delay in years for seeking treatment

	Contact First Year %			Median Delay in Years		
	Anxiety	Affective	Substance	Anxiety	Affective	Substance
Canada	32.4	34.6		3.0	2.0	
Colombia	2.9	18.7	3.6	26.0	9.0	11.0
Mexico	3.6	16.0	0.9	30.0	14.0	10.0
USA	11.3	35.4	10.0	23.0	4.0	13.0

Treatment gap for schizophrenia by subregion in Latin America and the Caribbean

	Mean	Median	Weighted
Latin America & Caribbean	26.0	56.9	56.4
Caribbean	2.1	12.3	38.3
Central America	37.8	65.9	79.4
South America	69.4	66.6	73.9
Mexico	93.7	93.7	93.7
Brazil	25.9	25.9	25.9
Low-Income	21.7	66.6	74.7
High-Income	27.5	53.4	54.1

Treatment Gap in the Americas

**SERVICE UTILIZATION AND THE
TREATMENT GAP IN THE
AMERICAS AMONG CHILDREN
AND ADOLESCENTS**

12-month prevalence rate of mental disorders in selected psychiatric epidemiologic prevalence studies in the Americas for affective, anxiety and substance use disorders and by severity of disorder in children and adolescents

Disorder	Taubaté Brazil	Chile	Colombia	Mexico City	Puerto Rico	USA NCS-A
Anxiety	5.2	18.5	5.5	29.8	9.5	24.9
Affective	1.0	6.1	5.3	7.2	4.1	10.0
Impulse Control	8.8	21.8	7.6	15.3	12.6	16.3
Substance		4.8	5.4	3.3	3.1	8.3
Any	12.7	38.3	16.1	39.4	19.8	40.3
Mild		22.7		21.5	42.2	58.2
Moderate		18.6		51.9	29.2	22.9
Severe		58.7		26.6	28.6	18.8

Service utilization for children and adolescents by any disorder by severity and type of service provider, and treatment gap (no treatment)

	Total	Any disorder	Severe	Moderate	Mild	No Disorder
Chile						
School Based	11.9	18.9	21.9	14.1	11.7	8.1
Mental Health	9.3	14.5	19.2	5.2	8.2	6.1
Primary Care	3.0	4.4	5.9	3.3	1.2	2.2
Social Services	0.3	0.4	0.6	0.6	0	0.3
Non-Health Care	2.2	3.6	5.3	1.6	0.7	1.4
Any Treatment	23.2	33.3	41.6	21.7	21.2	16.9
No Treatment	76.8	66.7	59.4	78.3	78.8	83.1
Mexico City						
School Based	2.5	13.7	4.8	4.5	3.9	1.3
Health Care	6.3	9.5	14.2	9.2	6.5	4.3
Non-Health Care	1.7	2.9	4.5	2.8	1.7	0.9
Any Treatment	9.1	13.7	19.2	13.2	10.4	6.1
No treatment	90.9	86.3	80.8	86.6	89.6	93.9
Puerto Rico						
School Based	12.7	32.7	33.3	32.2	32.2	6.8
Health Care	8.7	23.4	35.3	17.2	12.2	4.4
Any Treatment	16.6	39.8	49.6	39.5	25.7	9.7
No treatment	83.4	60.2	50.4	60.5	74.3	90.3
USA-NCS-R						
Any Treatment		36.2	47.4		26.1	
No treatment		63.8	52.6		73.9	

Treatment gap by specific child and adolescent mental disorder in the Americas

Disorder	Chile	Mexico	USA	Mean	Median
Any Anxiety	66.2	86.7	82.2	78.4	82.2
Any Affective	73.9	80.7	62.3	72.3	73.9
Any Impulse Control	62.7	82.9	51.1	65.6	62.7
Any Substance Use	73.1	77.8	62.0	71.0	73.1
Any disorder	66.7	86.3	63.8	72.3	66.7

Treatment Gap in the Americas

ADDRESSING BARRIERS TO CARE IN MENTAL HEALTH CARE IN THE AMERICAS

Barriers to care among adults in Chile

Barriers to care	Respondents with disorder who did not seek treatment				No diagnosis but acknowledge need for help
Barriers to care	Respondents with disorder				No diagnosis but acknowledge need for help
	Any	Severe	Moderate	Mild	
<i>Perceived Need</i>					
Low perceived need	63.8	50.5	67.2	70.2	
<i>Structural Barriers Among Those with Perceived Need</i>					
Financial burden	41.8	51.7	43.7	40.1	35.1
Lack of knowledge about where to go for help	21.4	26.1	16.2	22.6	12.0
Transportation difficulty	11.9	15.1	3.4	20.8	9.9
Inconvenient	24.5	28.7	19.2	23.6	23.8
<i>Attitudinal Barriers Among Those with Perceived Need</i>					
Thought problem would get better	66.2	61.4	59.6	67.3	56.2
Belief treatment is ineffective	20.9	37.1	13.8	19.6	16.1
Stigma or afraid to ask for help	15.9	22.9	11.1	20.9	11.3
Afraid to learn about your problems	12.3	21.8	11.5	11.5	9.6
Wanted to handle it on own	65.2	54.9	65.6	63.0	51.2
Worried about possible diagnosis	43.6	55.4	42.9	44.1	30.2
Didn't trust professional	26.7	27.6	31.0	21.9	25.5

Barriers to care among adults in Canada

Barriers to care	Respondents with disorder who did not seek treatment				No diagnosis but acknowledge need for help
	Any	Severe	Moderate	Mild	
<i>Perceived Need</i>					
Low perceived need	93.3	96.6	92.3	89.8	89.5
<i>Structural Barriers Among Those with Perceived Need</i>					
Financial burden	8.9	10.5	8.7	6.1	6.7
Lack of availability of treatment	3.2	6.4	1.4	2.0	4.5
Transportation problems or child care	2.7	3.5	1.0	4.1	2.4
Inconvenient	19.9	22.2	16.3	23.2	21.2
Lack of knowledge about where to go for help	15.0	17.0	13.4	19.7	16.1
Professional unavailable at the time	7.0	5.8	10.5	3.0	4.3
Waiting time too long	3.8	5.3	3.3	11.1	2.2
Language barrier	0.4	0	1.0	0	1.0
<i>Attitudinal Barriers Among Those with Perceived Need</i>					
Wanted to handle it on own	40.5	31.6	44.5	46.9	44.4
Belief treatment is ineffective	10.1	11.7	11.0	6.1	6.1
Stigma or afraid to ask for help	18.8	18.7	20.1	15.2	13.6
Personal or family responsibilities	5.7	7.6	6.2	6.1	3.1

Barriers to care among adults in United States

NCS-R

Barriers to care	Respondents with disorder who did not seek treatment			
	Any	Severe	Moderate	Mild
<i>Perceived Need</i>				
Low perceived need	44.8	25.9	39.3	57.3
<i>Structural Barriers Among Those with Perceived Need</i>				
Financial burden	15.3	26.0	14.5	9.1
Lack of availability of treatment	12.8	24.2	11.3	7.0
Transportation problems	5.7	13.4	4.9	1.6
Inconvenient	9.8	18.7	10.0	3.7
<i>Attitudinal Barriers Among Those with Perceived Need</i>				
Wanted to handle it on own	72.6	62.7	73.9	77.7
Belief treatment is ineffective	16.4	26.0	14.9	12.0
Stigma or afraid to ask for help	9.1	21.3	10.3	5.3
Thought problem would get better	11.5	23.1	10.3	5.3
Problem was not severe	16.9	27.1	15.9	11.5

Barriers to improvement of mental health services and challenges to overcome them

Barriers	Challenges to overcoming barriers
Insufficient funding for mental health services	<ul style="list-style-type: none"> Inconsistent and unclear advocacy Perception that mental health indicators are weak People with mental disorders are currently not a sufficiently powerful lobby Social stigma Incorrect belief that care is not cost effective
Mental health resources centralized in and near big cities and in large institutions	<ul style="list-style-type: none"> Historical reliance on mental hospitals Division of mental health responsibilities between government departments Differences between central and provincial government priorities Vested interests of mental health professionals and workers in continuity of large hospitals Political risk associated with trade union protests Need for transitional funding to shift to community-based services
Complexities of integrating mental health care effectively in primary-care services	<ul style="list-style-type: none"> Primary care workers already overburdened Lack of supervision and specialist support after training Lack of continuous supply of psychotropics in primary care
Low numbers and limited types of health workers trained and supervised in mental health care	<ul style="list-style-type: none"> Poor working conditions in public mental health services Lack of incentives to work in rural areas Professional establishment opposes expanded role for non-specialists in mental health workforces Medical students and psychiatric residents trained only in mental hospitals Inadequate training of general health workforce Mental health specialists spend time providing care rather than training and supervising others Lack of infrastructure to enable community-based supervision
Mental health leaders often deficient in public-health skills and experiences	<ul style="list-style-type: none"> Those who rise to leadership positions often only trained in clinical management Public health training does not include mental health Resistance of psychiatrists to accept others as leaders Lack of training courses in public mental health Leaders overburdened by clinical and management responsibilities and private practice