Introduction, Nosology, and History

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Target outcomes

Recent evolution of diagnosis

Epistemology and epidemiology

The problem of onset

Generations in psychiatric epidemiology

Diagnosis in surveys

Screening

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Section A

Introduction and Nosology

Descriptive Epidemiology of Seven Psychiatric Disorders

Diagnosis	Lifetime prevalence	Inter-quartile range	Number of studies	Annual incidence per 1000
Autism	0.05	0.04-0.10	23	NA
Attention Deficit	6.2	2.2-6.7	6	NA
Conduct Disorder	5.4	NA	1	NA
Eating Disorders	1.2	1.0-2.8	7	0.18
Agoraphobic Disorder	5.3	3.6-5.7	7	22.0
Panic Disorder	1.6	1.1-2.2	11	1.4
Social Phobic Disorder	1.7	1.7-2.7	6	4.0
Alcohol Disorder	13.0	10.7-15.9	15	17.9
Major Depression	9.0	8.4-16.0	15	3.0
Schizophrenia	0.3	0.16-0.56	25	0.2
Bipolar Disorder	0.6	0.4-0.8	9	0.3
Dementia	4.9	3.6-7.2	23	6.0

Data from: Eaton (2001), The Sociology of Mental Disorders, *3rd ed.*

Lifetime prevalence

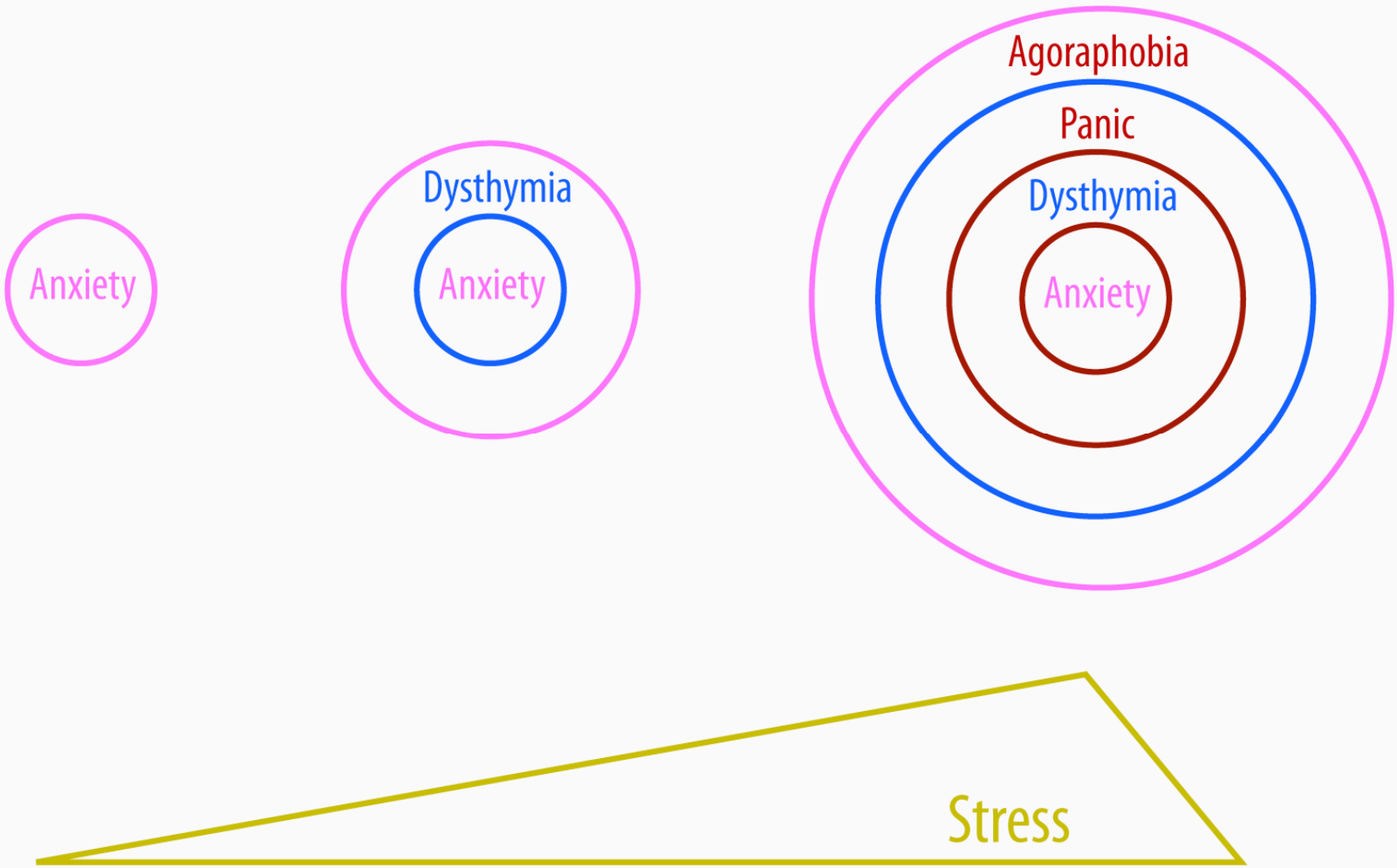
Prevalence: proportion of the population with the disorder

- ★ *Lifetime– proportion who have, or have ever had, the disorder*
- ★ *Point– proportion who have the disorder now*
- ★ *Period– proportion who have the disorder during a stated period of time*

Incidence: rate at which new cases form

- ★ *Attack Rate—rate at which cases form, during a stated period of follow-up, from a population of individuals who do not have the disorder at baseline*
- ★ *First Lifetime Incidence— rate at which cases form, during a stated period of follow-up, from a population of individuals who have never had the disorder at baseline*

Stress-Reactive Neurosis



Definitions for Epistemologic Approach

Syndrome

- ★ *Co-occurrence of signs and symptoms*

Reliability

- ★ *Consistency of measurement*

Continued

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- ★ *Consistency of measurement*

Validity

- ★ *Measuring what is supposed to be measured*

Continued

Definitions for Epistemologic Approach

Syndrome

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Reliability

- ★ *Consistency of measurement*

Validity

- ★ *Measuring what is supposed to be measured*

Construct validity

- ★ *Agreement with theoretical predictions across a range of theories, and across a range of modalities of measurement*

Epistemology and Epidemiology

Disease Perspective

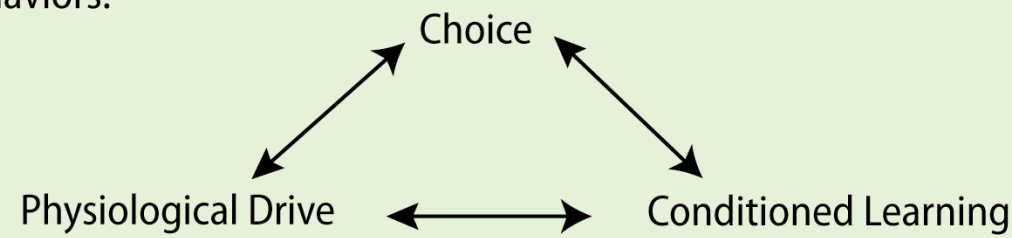
Clinical Entity ⟷ Pathological Condition ⟷ Etiology

Dimensional Perspective

Potential ⟷ Provocation ⟷ Response

Behavior Perspective

A. Driven Behaviors:



B. Socially Learned Behaviors:

Antecedents ⟷ Responses ⟷ Consequences

Life–Story Perspective

Setting → Sequence → Outcome

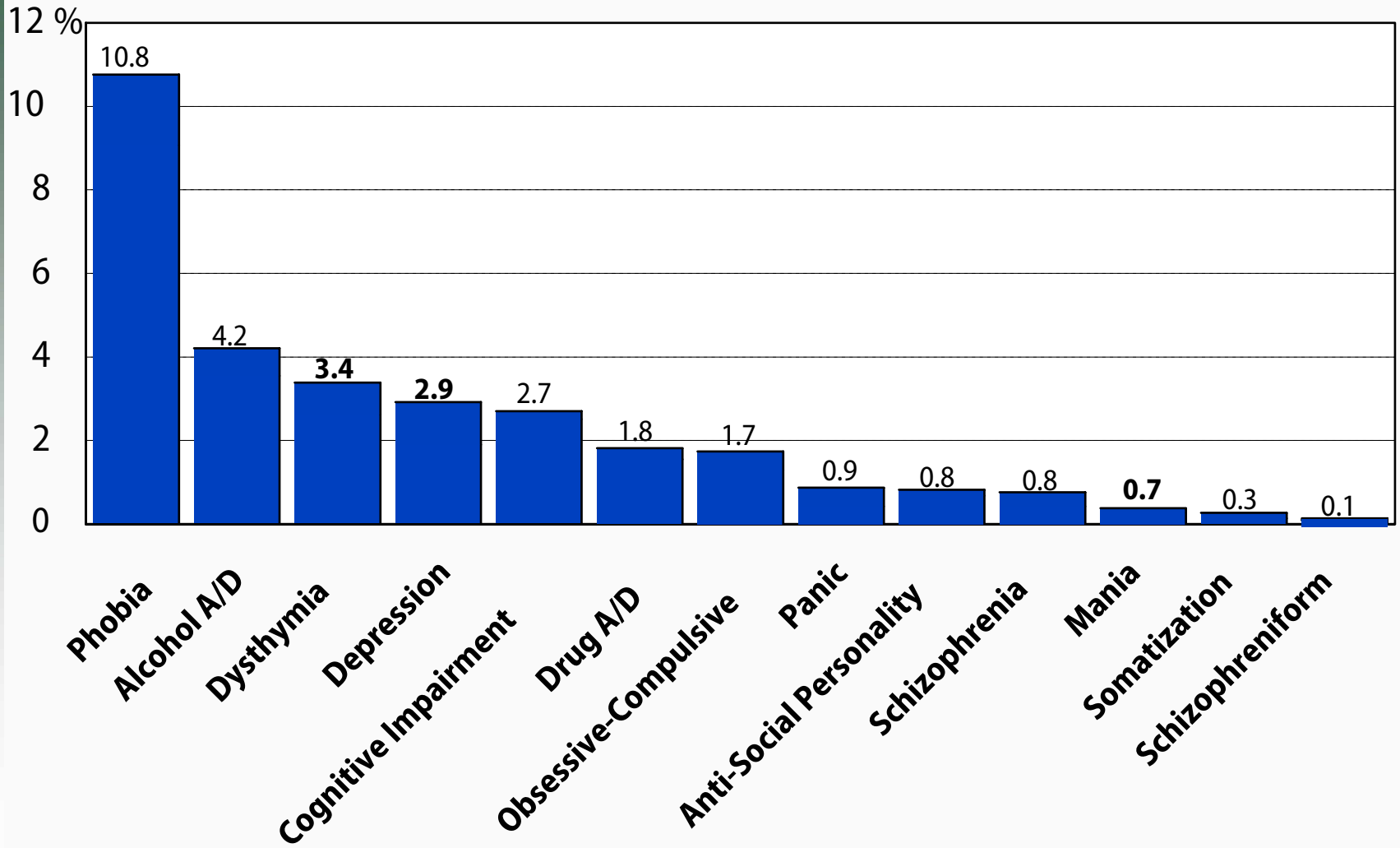
Adapted from: Mc Hugh and Slavney, The Perspectives of Psychiatry, *3rd edition*

Table

Diagnosis	Reliability DSM-III-R	Reliability ICD-10	Chemical Treatment	Psycho-social Treatment	Recurrence Risk in MZ Twins
		Disorders of children			
Autism	NA	.90	⊠	⊠	2,555.0
Attention Deficit	0.61	0.83	+	+	3.3
		Disorders of adolescents			
Conduct Disorder	0.57	.90	⊠	+	NA
Eating Disorders	NA	.95	?	+	8.0
		Non-psychotic Disorders of Adults			
Agoraphobic Disorder	0.43	0.80	+	+	NA
Panic Disorder	0.58	0.64	+	+	4.0
Social Phobic Disorder	0.47	0.79	+	+	NA
Alcohol Disorder	0.75	0.93	⊠	+	NA
Antisocial Personality	0.63	NA	⊠	⊠	NA
Major Depressive Disorder	0.64	0.73	+	+	1.7
		Psychotic Disorders of Adults			
Schizophrenia	0.65	0.88	+	+	48
Bipolar Disorder	0.84	0.82	+	⊠	60
		Disorders of the elderly			
Dementia	0.83	NA	?	⊠	NA

Prevalence of Disorder in Past Six Months

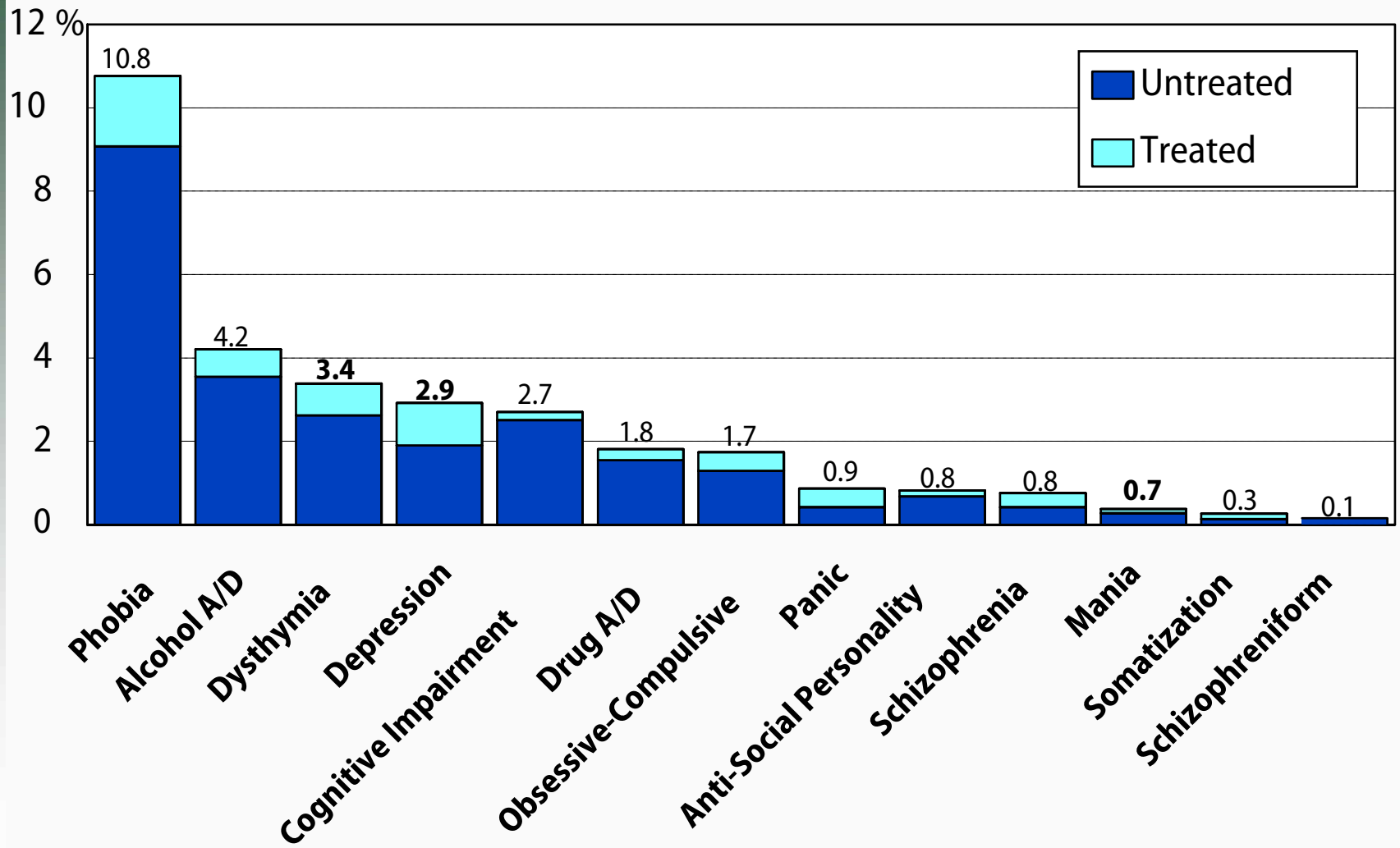
ECA Program



Data from: Eaton (1994), Int J Methods Psychiatr Res.,

Prevalence of Disorder in Past Six Months

ECA Program



Data from: Eaton (1994), Int J Methods Psychiatr Res.,

Symptom Groups Related to Depressive Disorder

Lifetime Prevalence in Percent

	Any occurrence ever	*Worst Episode of Depression*
Dysphoric Episode	**27.9**	**12.0**
Anhedonia	**9.3**	**5.6**
Appetite	**20.7**	**7.0**
Sleep	**22.1**	**8.4**
Slow or restless	**9.8**	**3.7**
Fatigue	**17.1**	**5.0**
Guilt	**6.3**	**4.2**
Concentration	**11.7**	**6.9**
Thoughts of Death	**21.0**	**7.1**
Episode of Depressive Syndrome:		
Symptoms in 1 or more groups		**12.0**
Symptoms in 2 or more groups		**11.8**
Symptoms in 3 or more groups		**10.6**
Symptoms in 4 or more groups		**9.6**
Symptoms in 5 or more groups		**7.6**

Source: Baltimore Epidemiologic Catchment Area Followup

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Dimensional Perspective

Potential ⟷ Provocation ⟷ Response

Behavior Perspective

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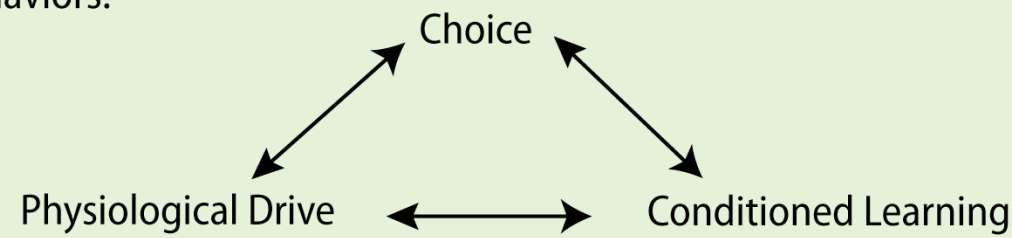

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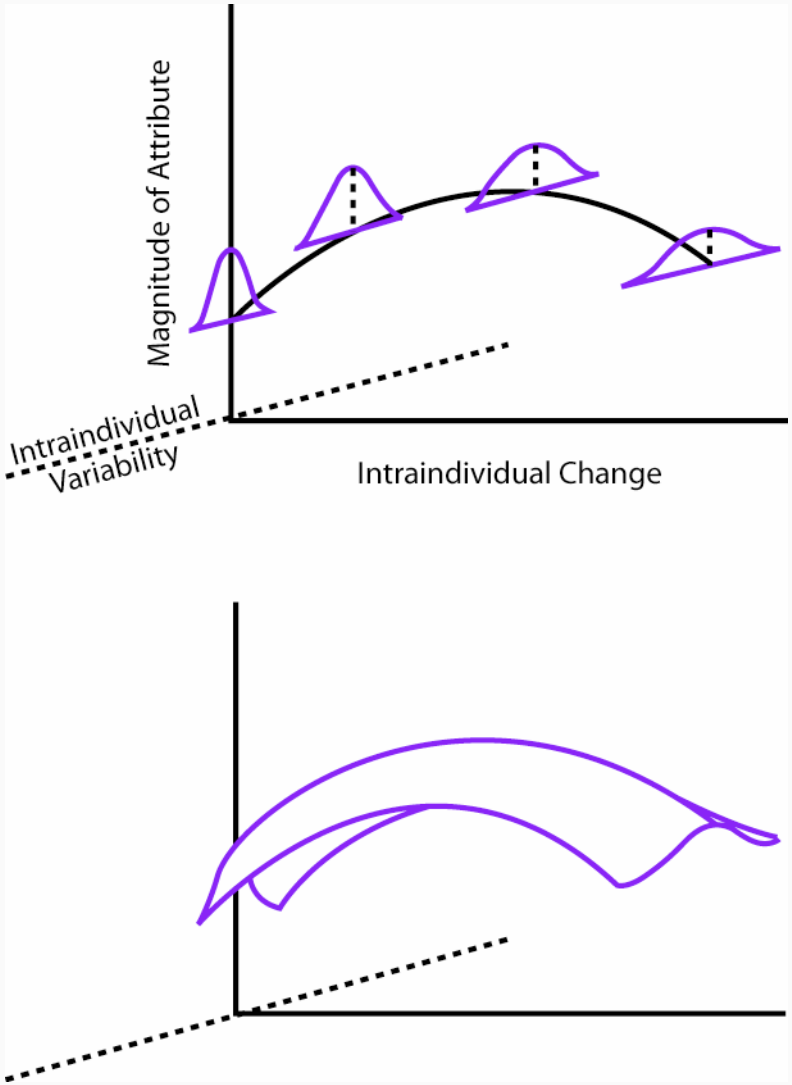
Section B

Onset

Onset



Adapted from: Nesseroade, J.R., "The Warp and the Woof of the Development Fabric," in Visions of Development, the Environment, and the Aesthetics: The Legacy of Joachim F. Wohlwill*, edited by R. Downs, L. Liben, and D.S. Palermo, Erlbaum, 1990.*

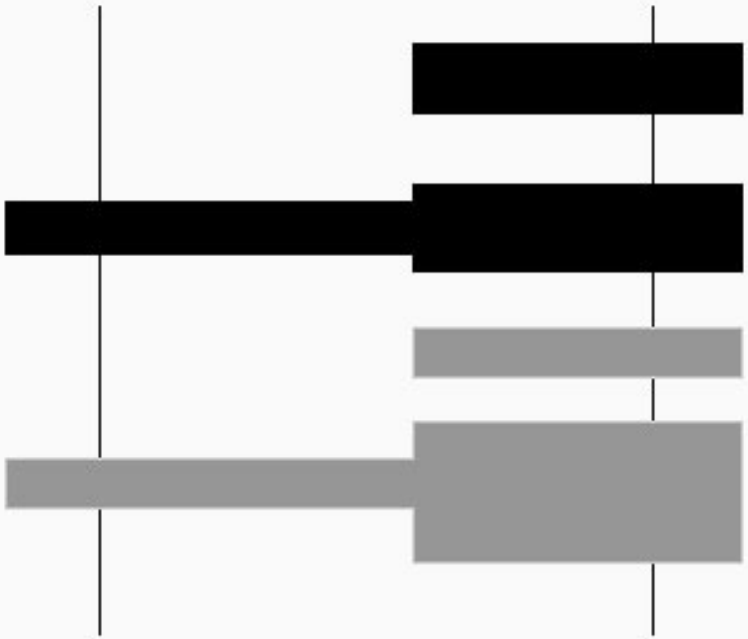
Continuities: Incidence as Intensification

Adapted by Bill Eaton from *Lilienfeld and Stolley (1994),* Foundations of Epidemiology*, 3rd ed.,*

Continued

Continuities: Incidence as Intensification

For the bottom part of the figure, the threshold of symptom intensity required for diagnosis is:



Case No. 3: Sudden, forceful onset

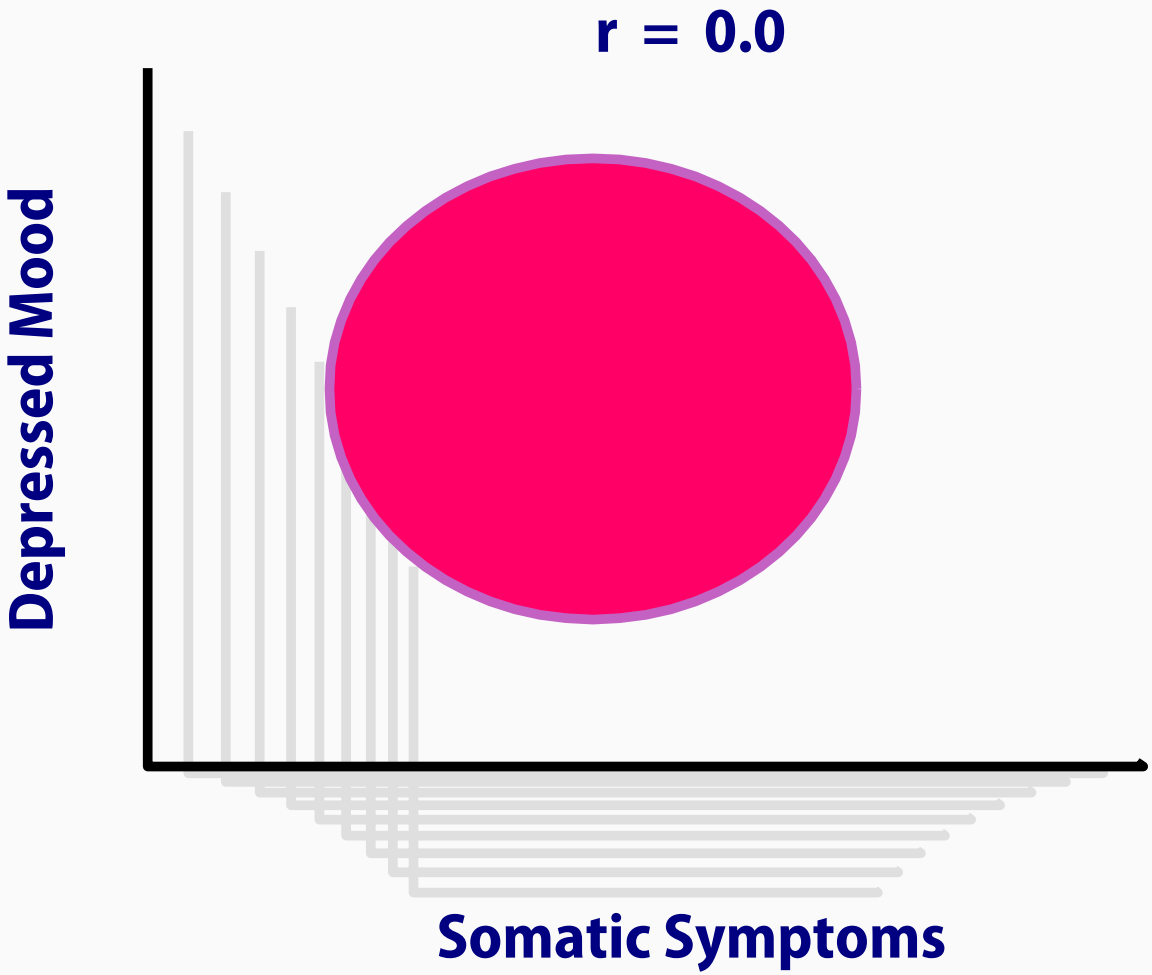
Case No. 5: Gradual onset from existing symptoms

Sudden intensification, *not* a new case

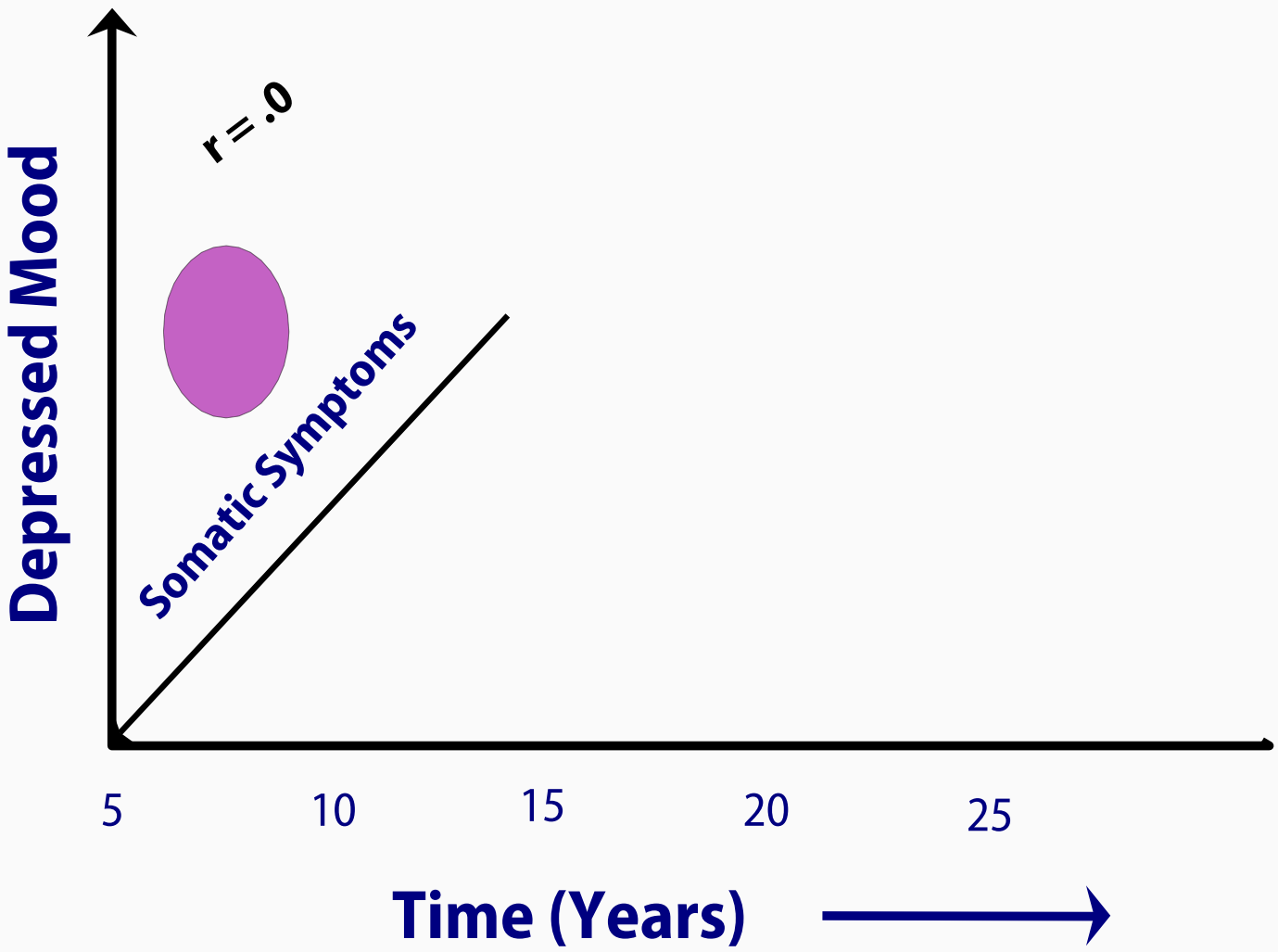
Sudden intensification in *existing* case

Adapted by Bill Eaton from *Lilienfeld and Stolley (1994),* Foundations of Epidemiology*, 3rd ed.,*

Association of Depressed Mood and Somatic Symptoms of Depression



Acquisition of Symptoms



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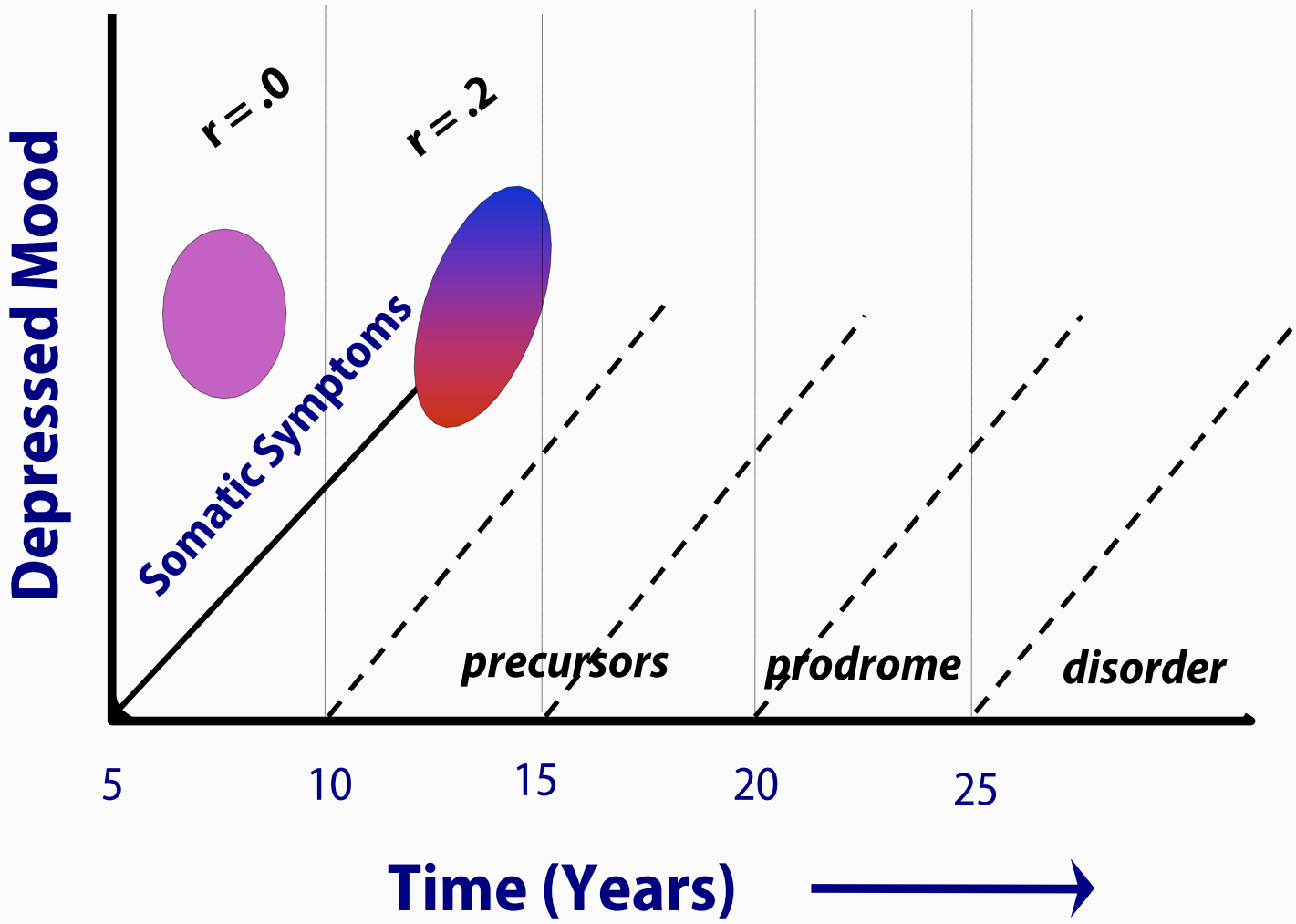
Acquisition of Symptoms



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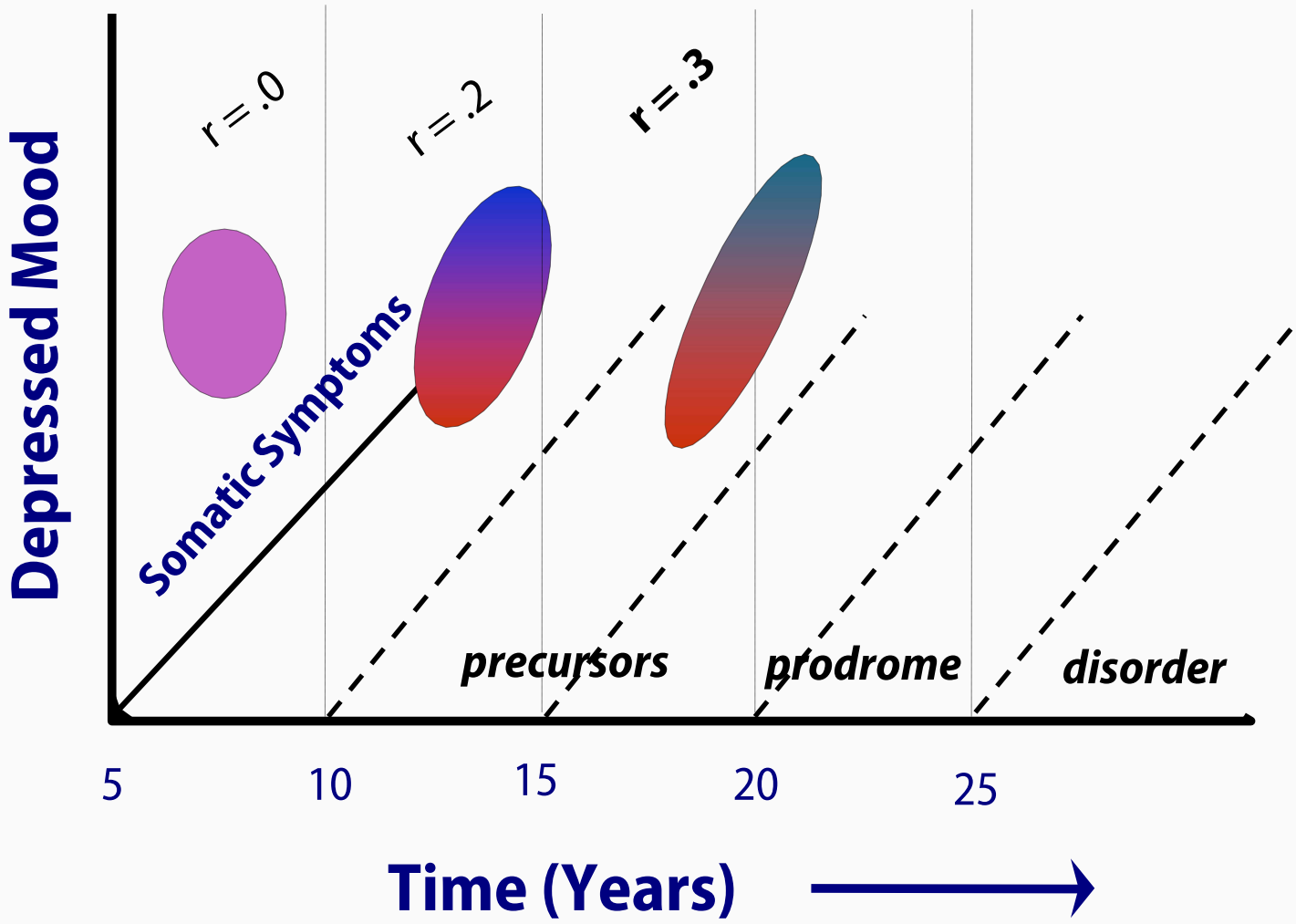
Acquisition of Symptoms



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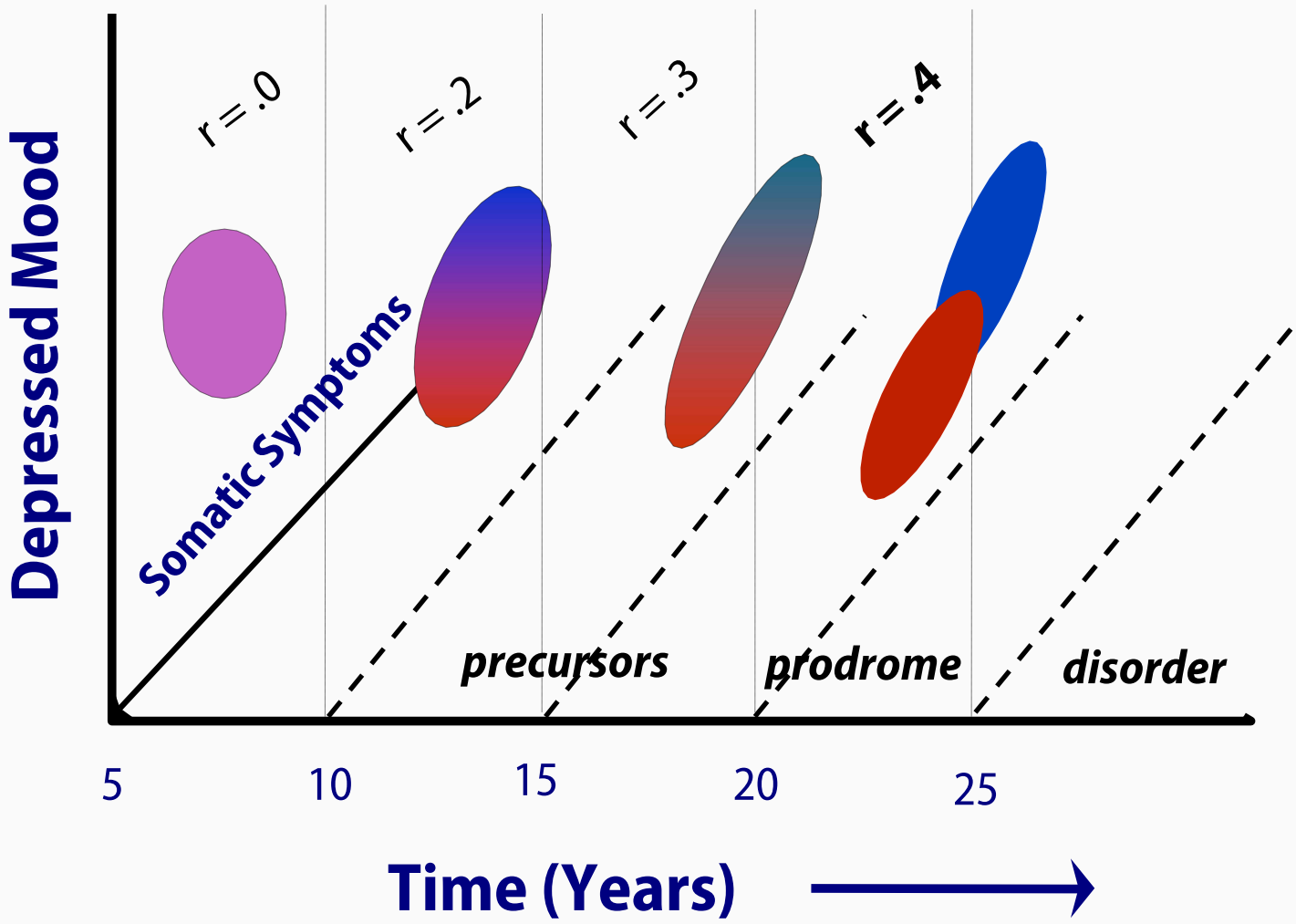
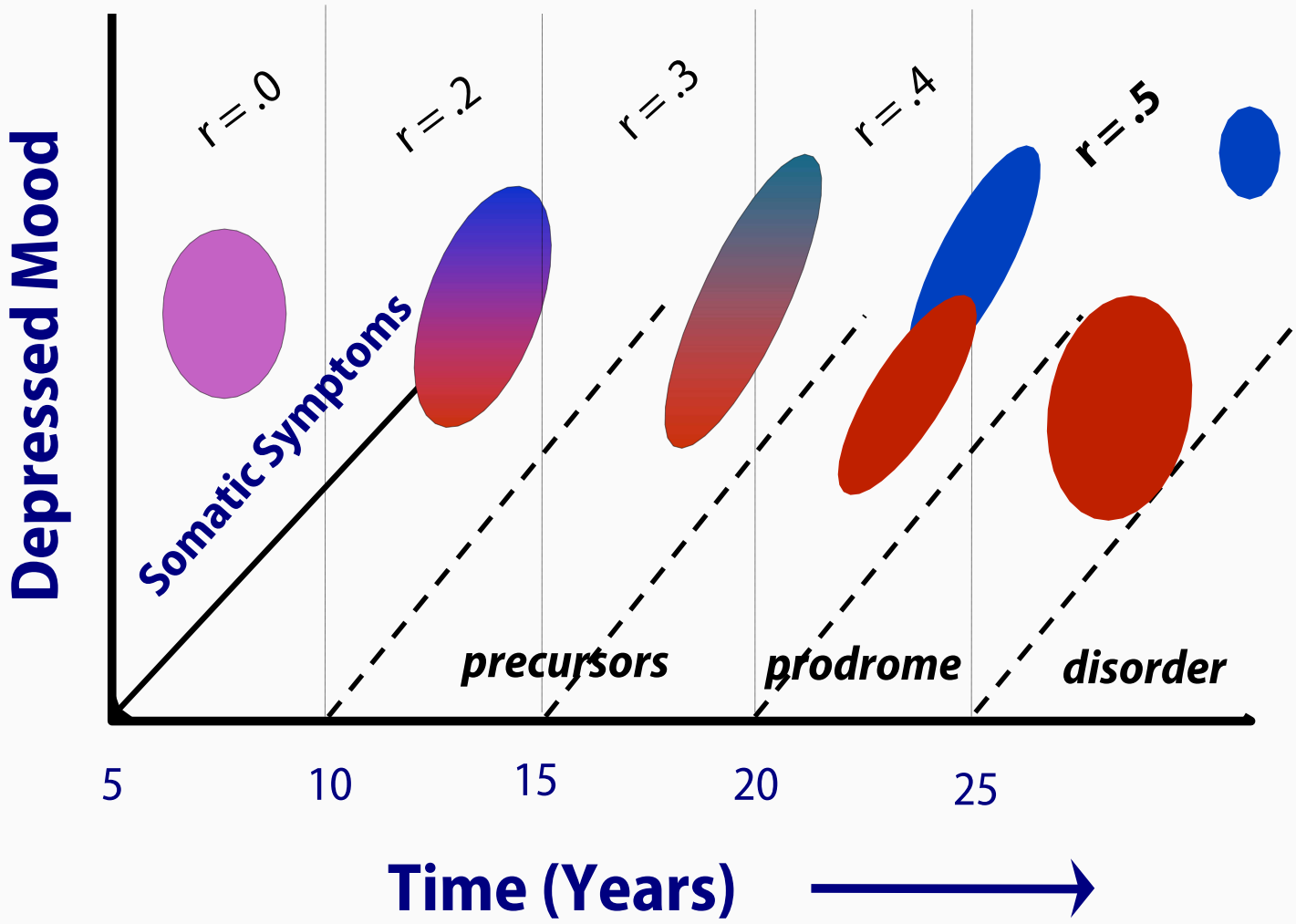
Acquisition of Symptoms




Depressed Mood
r = .0
r = .2
r = .3
r = .4
r = .5
Somatic Symptoms
precursors
prodrome
disorder
5
10
15
20
25
Time (Years)

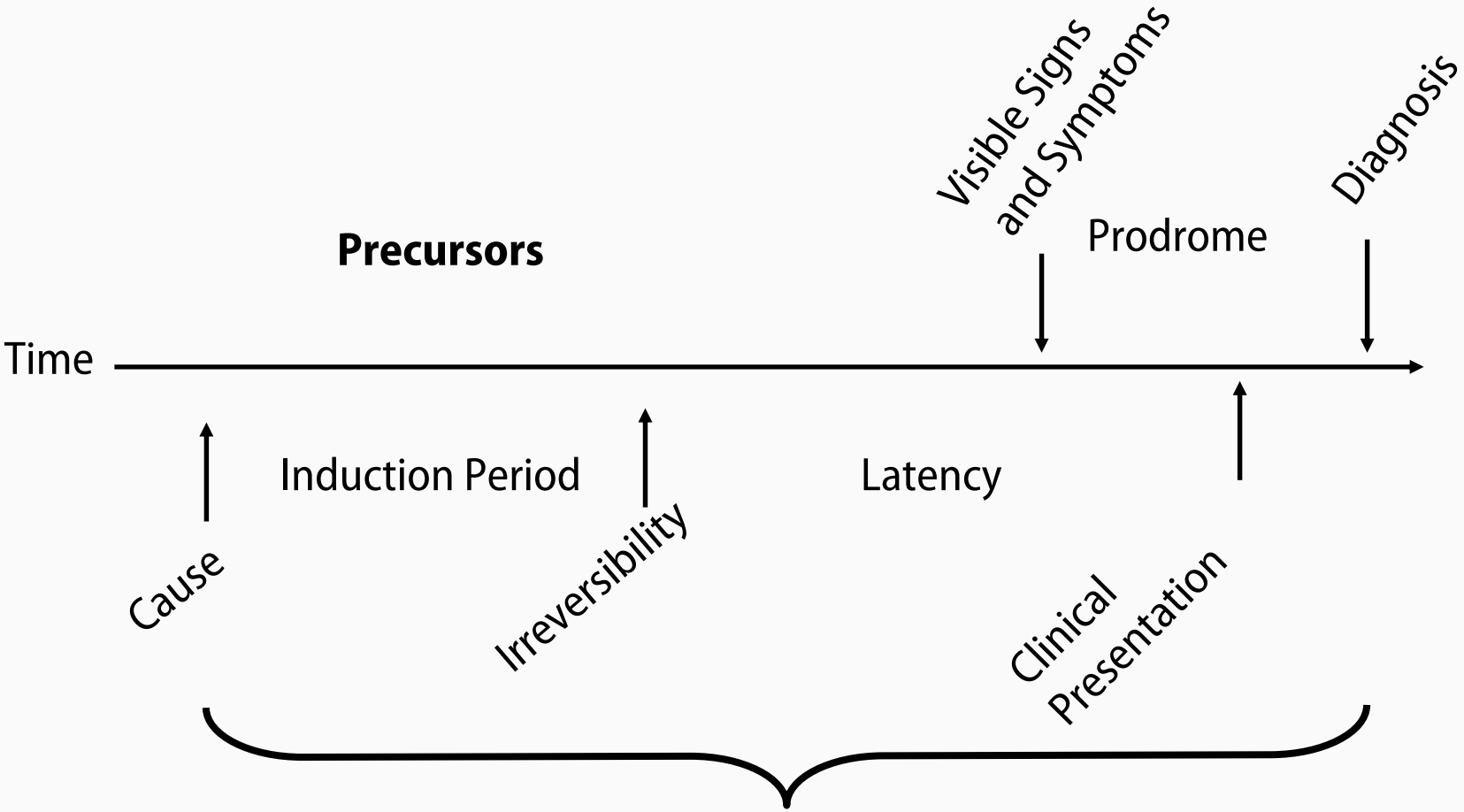
Precursor complaint or behavior

- ★ *A complaint or behavior from the domain of content of a disorder that predicts full onset, but imperfectly*

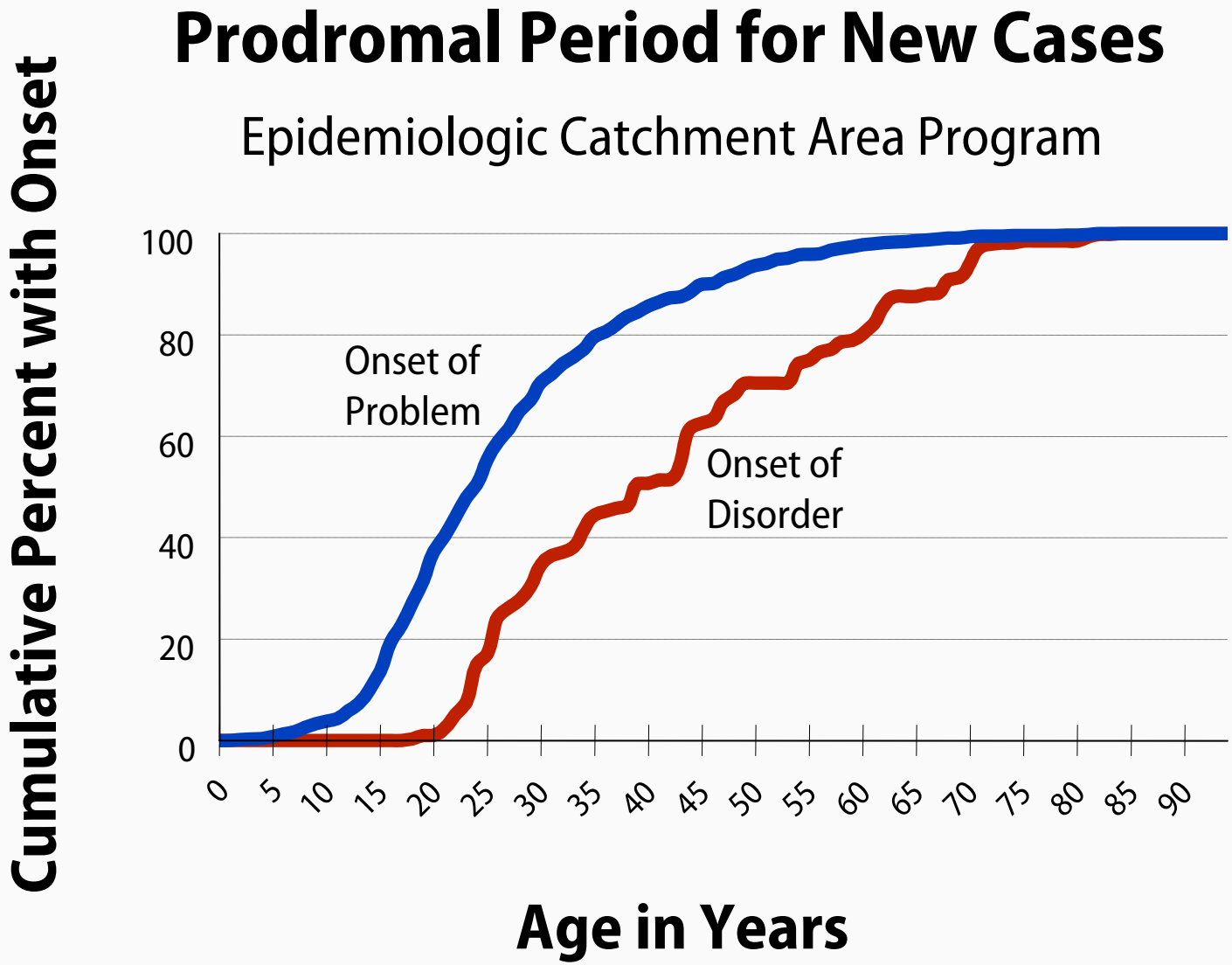
Prodromal sign or symptom

- ★ *A sign or symptom from the domain of content of a disorder that predicts full onset, with perfect certainty*

Etiologically Relevant Period

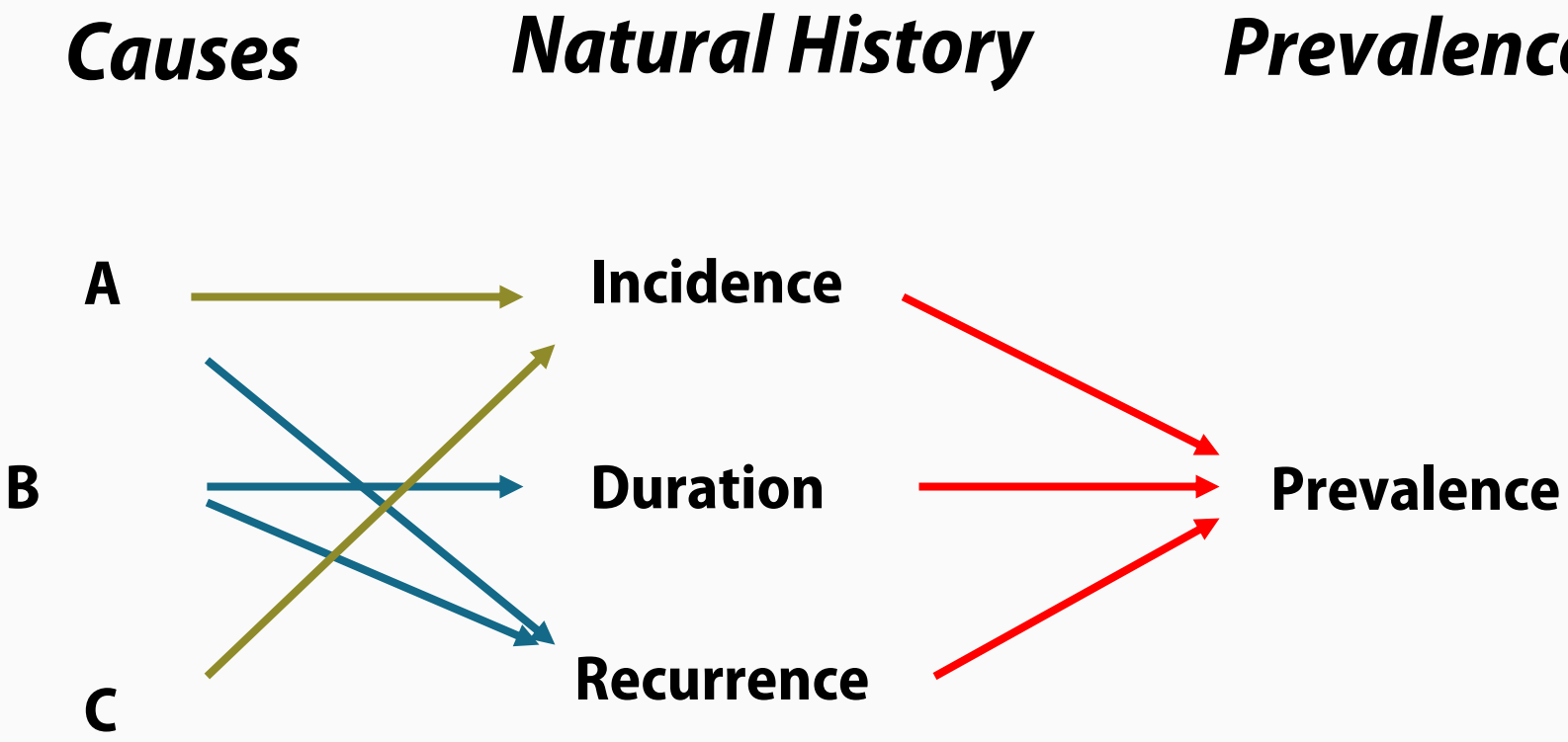


"Etiologically Relevant Period" (Rothman)
"Incubation" (Armenian)



Adapted from *Eaton, et al. (1995)*, Am J Psychiatry

Incidence as Change in Causal Structure



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Section C

History

19th Century—Jarvis Commission

Generation One

- ★ *Facility surveys*
- ★ *Specific diagnoses*
- ★ *Exemplars*
  - Chicago (*Faris and Dunham*)
  - New Haven (*Hollingshead and Redlich*)

Continued

Generations in Psychiatric Epidemiology

Generation Two

- ★ *Household surveys*
- ★ *Overall caseness rating*
- ★ *Exemplars*
  - Midtown Manhattan (Srole, Langner, et al.)
  - Stirling County (Leighton, et al.)

Generation Three

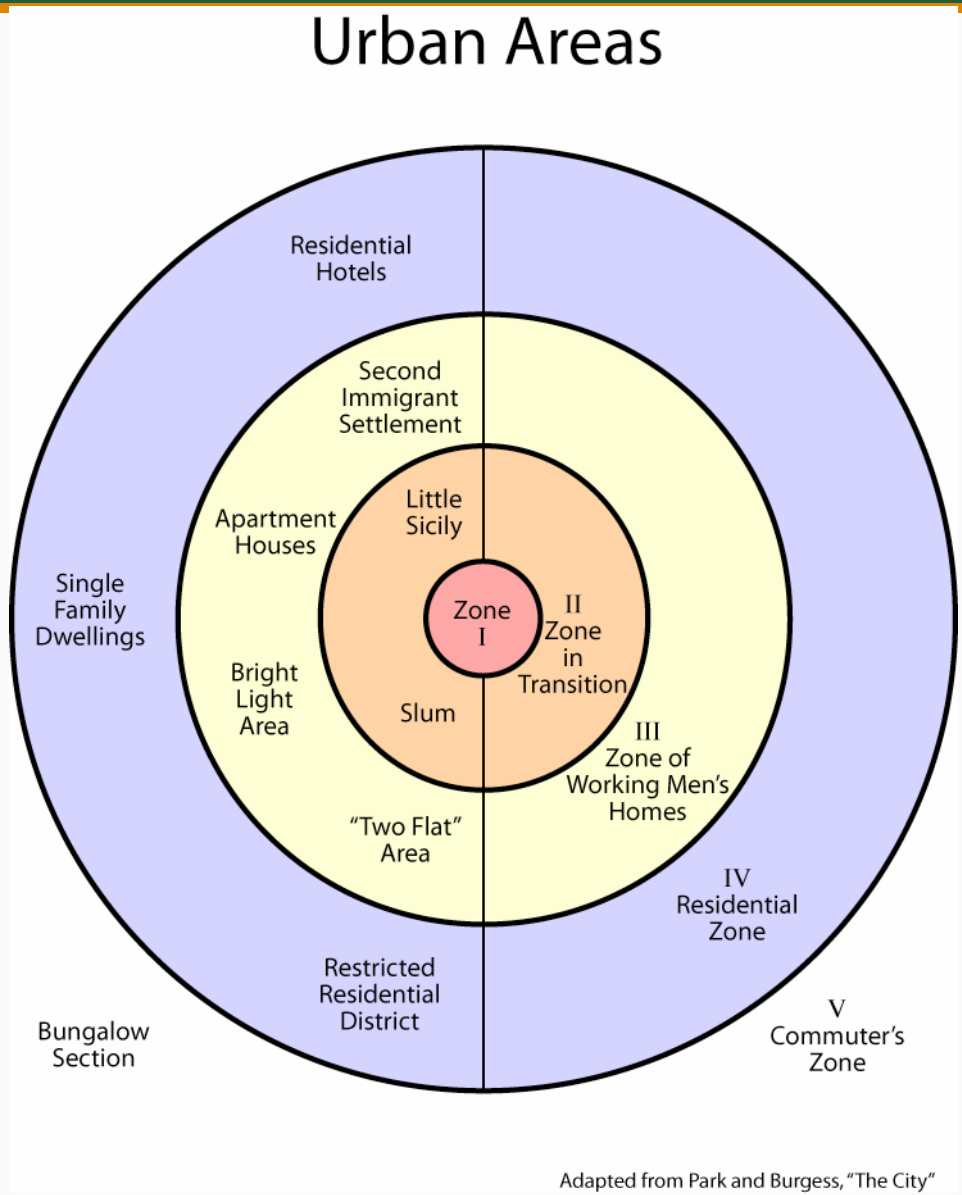
- ★ *Diagnostic Surveys*
- ★ *Exemplars*
  - ECA, NCS

Continued

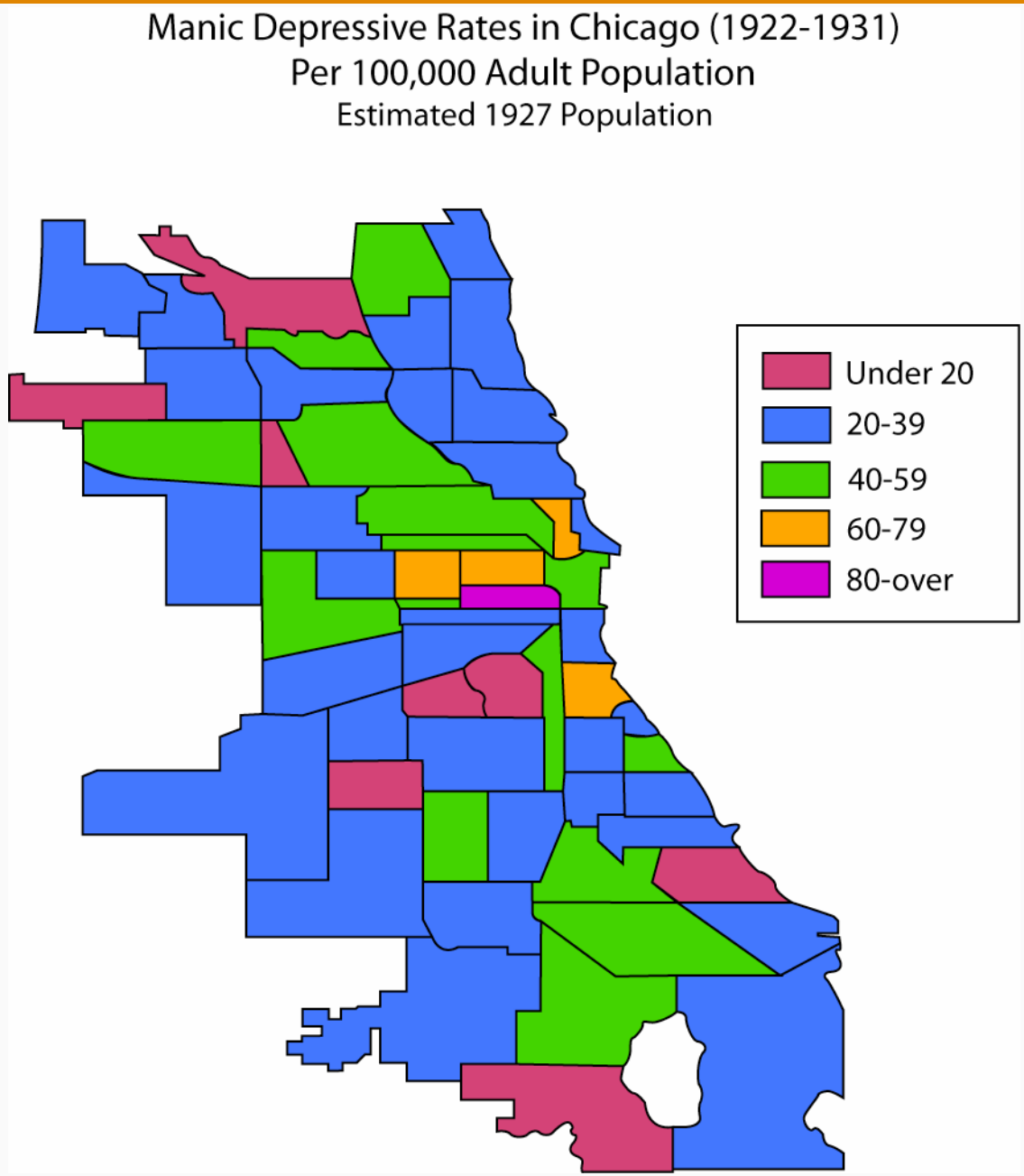
Lunacy and Idiocy in Massachusetts in 1854

Report of the Jarvis Commission			
	Lunatics	**Idiots**	**Total**
Paupers			
Number	**1,522**	**418**	**23,125**
Prevalence/1000	***65.82***	***18.08***	
Independents			
Number	**1,110**	**671**	**1,102,551**
Prevalence/1000	***1.01***	***0.61***	
Total			
Number	**2,622**	**1,089**	**1,124,676**
Prevalence/1000	***2.33***	***0.97***	

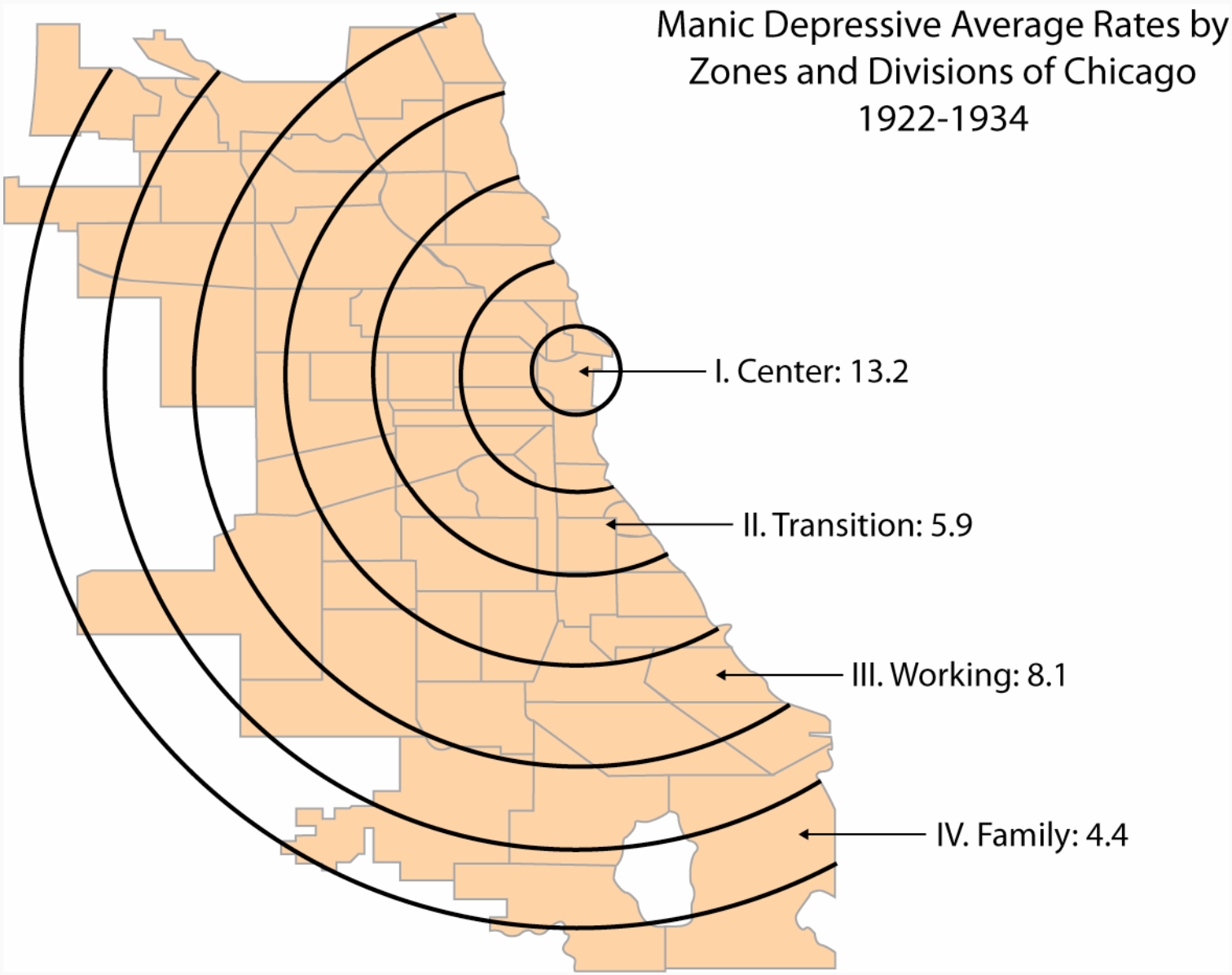
Data from: Commission on Lunacy, 1855: Table IV, VIII, XIX, XXI, and frequencies, on page 52.


Urban Areas
Residential Hotels
Second Immigrant Settlement
Little Sicily
Apartment Houses
Single Family Dwellings
Zone I
II Zone in Transition
Bright Light Area
Slum
III Zone of Working Men's Homes
"Two Flat" Area
IV Residential Zone
Restricted Residential District
Bungalow Section
V Commuter's Zone
Adapted from Park and Burgess, "The City"

Manic Depressive Rates in Chicago (1922-1931)



Manic-Depressive Insanity



Social Class and Mental Disorder in the New Haven Study

Level of Social Class

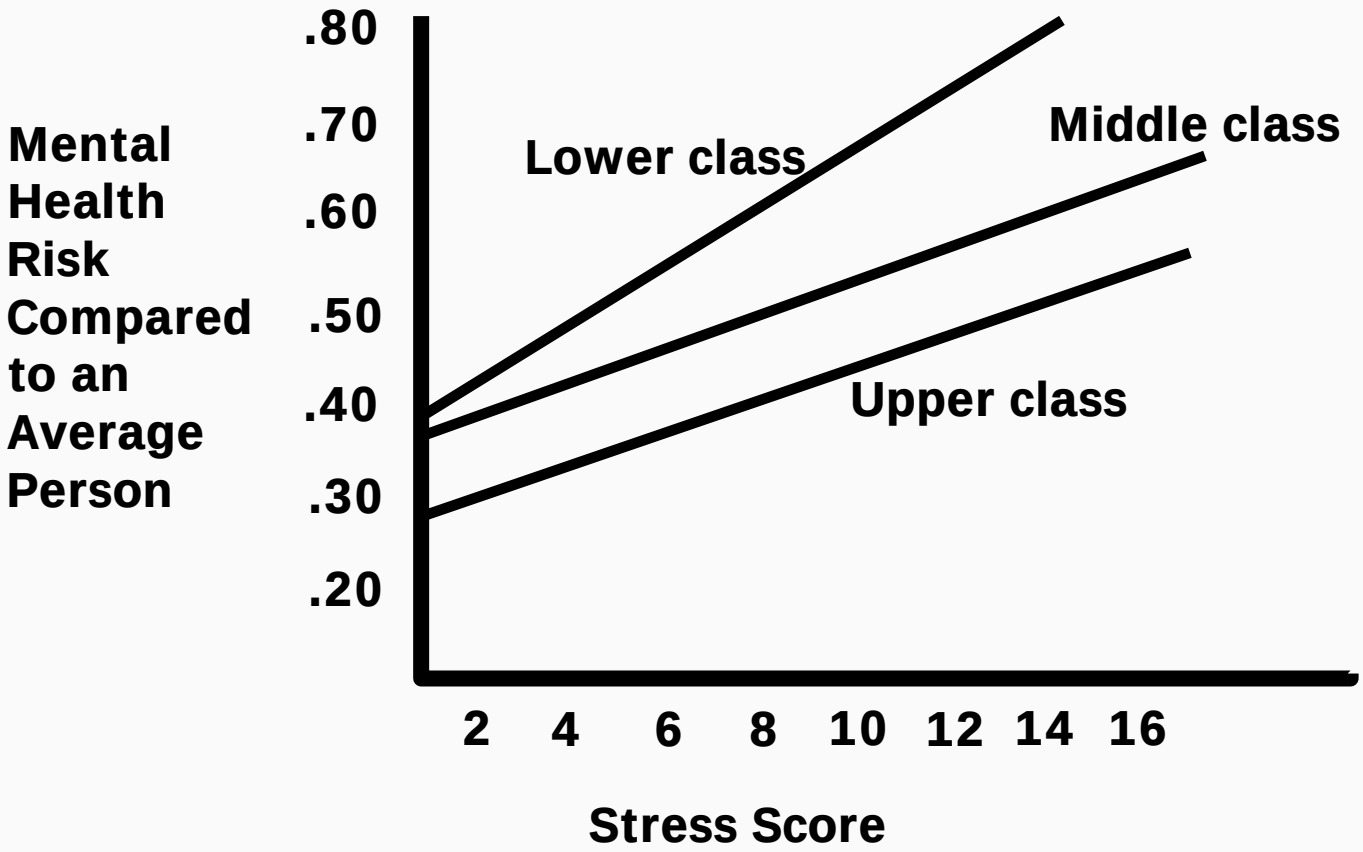
	I-II	III	IV	V
Neurosis				
Prevalence	**3.49**	**2.50**	**1.14**	**0.97**
Incidence	**0.69**	**0.78**	**0.52**	**0.66**
Psychosis				
Prevalence	**1.88**	**2.91**	**5.18**	**15.05**
Incidence	**0.28**	**0.36**	**0.37**	**0.73**

Rates* per 1,000

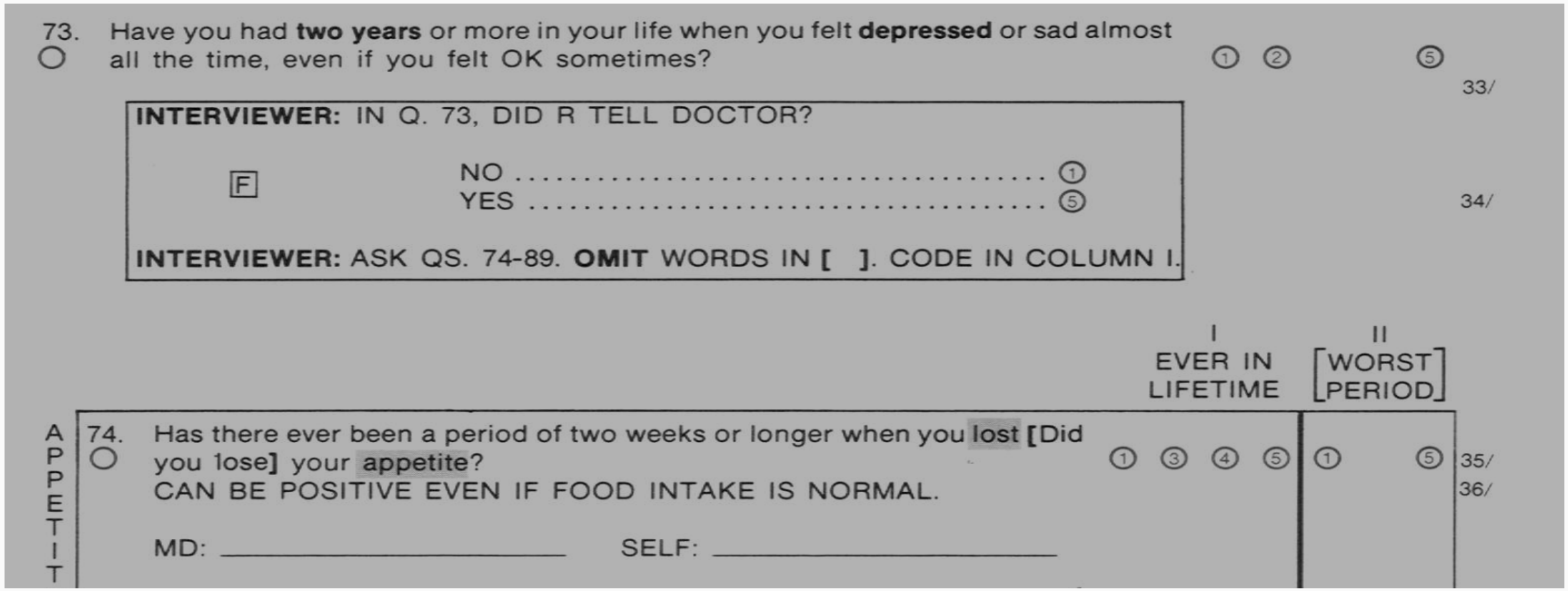
*** Prevalence rate is point prevalence; incidence rate is annual.**

Data from: Hollingshead and Redlich, 1958, Table 16.

Social Class and Stress in Manhattan



Redrawn from Figure 14.2 of Langner and Michael, 1963.



73. Have you had **two years** or more in your life when you felt **depressed** or sad almost all the time, even if you felt OK sometimes? ① ② ⑤ 33/

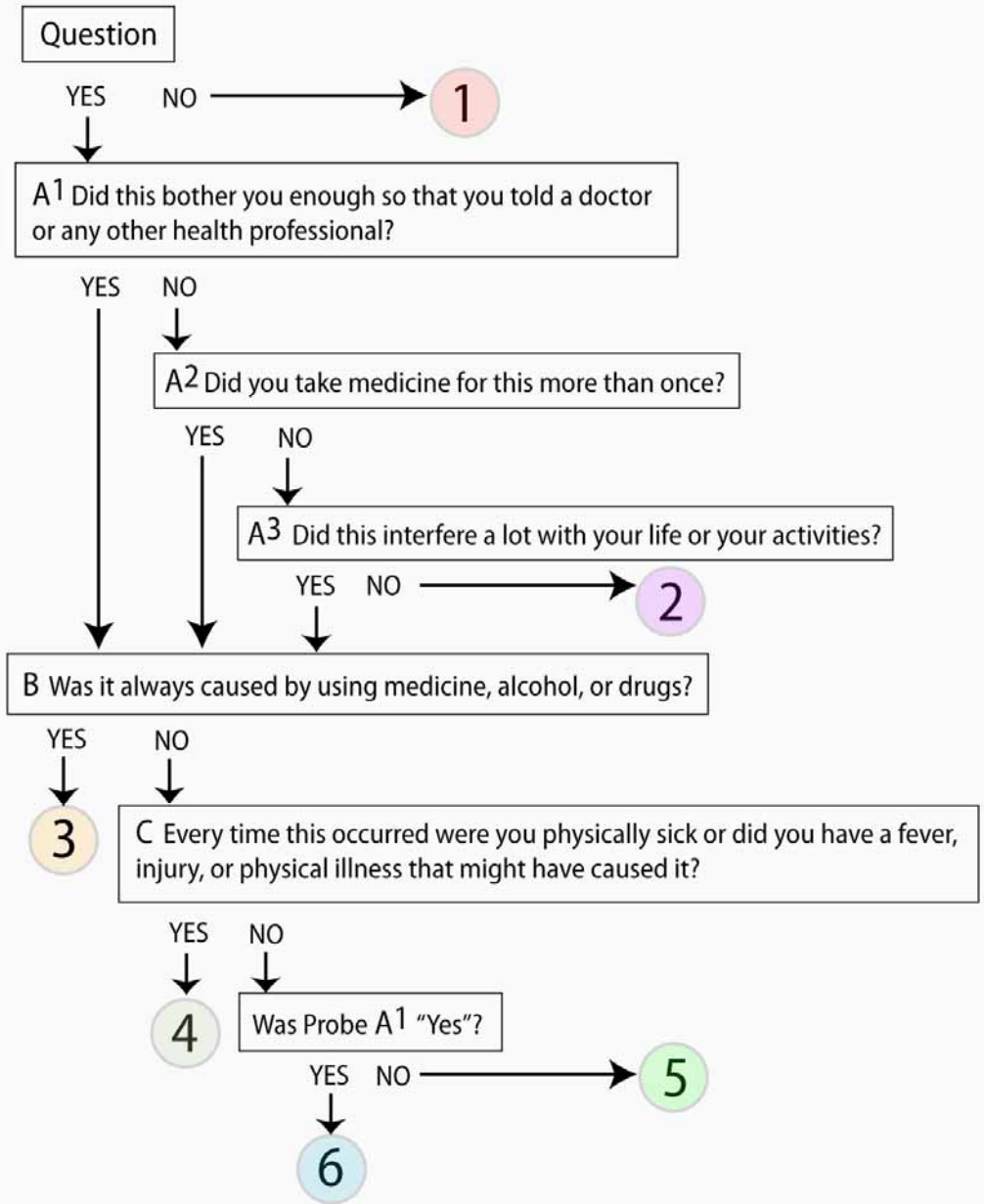
INTERVIEWER: IN Q. 73, DID R TELL DOCTOR?

F NO ..... ①
YES ..... ⑤ 34/

INTERVIEWER: ASK QS. 74-89. **OMIT** WORDS IN [ ]. CODE IN COLUMN I.

		I EVER IN LIFETIME	II [WORST PERIOD]	
APPETIT	74. Has there ever been a period of two weeks or longer when you lost [Did you lose] your appetite? CAN BE POSITIVE EVEN IF FOOD INTAKE IS NORMAL. MD: _____ SELF: _____	① ③ ④ ⑤	① ⑤	35/ 36/

DIS Probe Structure



Coordination of Community and Institution Surveys in ECA Program