

What is the Magnitude of the Problem?

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Definitions – Approaches to Answering

- Diagnosis-based classification
- Non-diagnosis-based definitions
- “Synthetic” definitions

The first strategy
(diagnosis based)

Diagnosis-based Definitions

- Schizophrenia: The median value per 1,000 persons (10%-90% quantiles) for the distributions for point, lifetime, and lifetime morbidity risk were 4.6 (1.9-10.0), 4.0 (1.6-12.1), and 7.2 (3.1-27.1), respectively:*
- GBD estimates (BD): pooled prevalence 0.74% (point) and 0.84% (6/12 months)**
- Saha et al. [PLoS Med.](#) 2005 May;2(5):e141. Epub 2005 May 31.
- Ferrari et al. *Journal of affective disorders* 12/2010; 134(1-3):1-13.

Serious Mental Illness “by law”*

- **The law* defines the following conditions as a serious mental illness:**
- Schizophrenia
- Paranoid and other psychotic disorders
- Bipolar disorders (hypomanic, manic, depressive, and mixed)
- Major depressive disorders (single episode or recurrent)
- Schizoaffective disorders (bipolar or depressive)
- Pervasive developmental disorders
- Obsessive-compulsive disorders
- Depression in childhood and adolescence
- Panic disorder
- Post traumatic stress disorders (acute, chronic, or with delayed onset)
- Bulimia Nervosa 307.51
- Anorexia Nervosa 307.1

http://www.bcbsil.com/provider/standards/serious_vs_non_serious.html

*In Illinois, according to Blue Cross/Blue Shield

GBD Disability Weights*

Schizophrenia: acute state	0.756
Schizophrenia: residual state	0.576
Major depressive disorder: mild episode	0.159
Major depressive disorder: moderate episode	0.406
Major depressive disorder: severe episode	0.655
Bipolar disorder: manic episode	0.48
Bipolar disorder: residual state	0.035

* <http://ghdx.healthdata.org/record/global-burden-disease-study-2010-gbd-2010-disability-weights>

Diagnosis-based Definitions

- A diagnosis-focused approach may underestimate the burden of SPMI if it excludes people with other non-specified diagnoses.
- A diagnosis-focused approach may overestimate the burden of SPMI by counting people who do not have severe or persistent symptoms, even though they have these diagnoses.

The second approach
(non-diagnosis-based)

SAMHSA Definition

(“serious mental illness”)

- SAMSHA Definition: persons aged 18 or older who currently or at any time in the past year have had a diagnosable mental, behavioral, or emotional disorder (excluding developmental and substance use disorders) of sufficient duration to meet diagnostic criteria specified within DSM-IV (APA, 1994) that has resulted in serious functional impairment, which substantially interferes with or limits one or more major life activities.*

* http://www.samhsa.gov/data/NSDUH/2k12MH_FindingsandDetTables/2K12MHF/NSDUHmhfr2012.htm#sec2-2

Epidemiology of SMI (SAMSHA Definition)

- National Survey on Drug Use and Health (NSDUH)
- Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Non-patient Edition (SCID-I/NP) – in a subset of sample
- “Substantial Impairment” defined using:
 - K-6
 - WHO-DAS 2.0

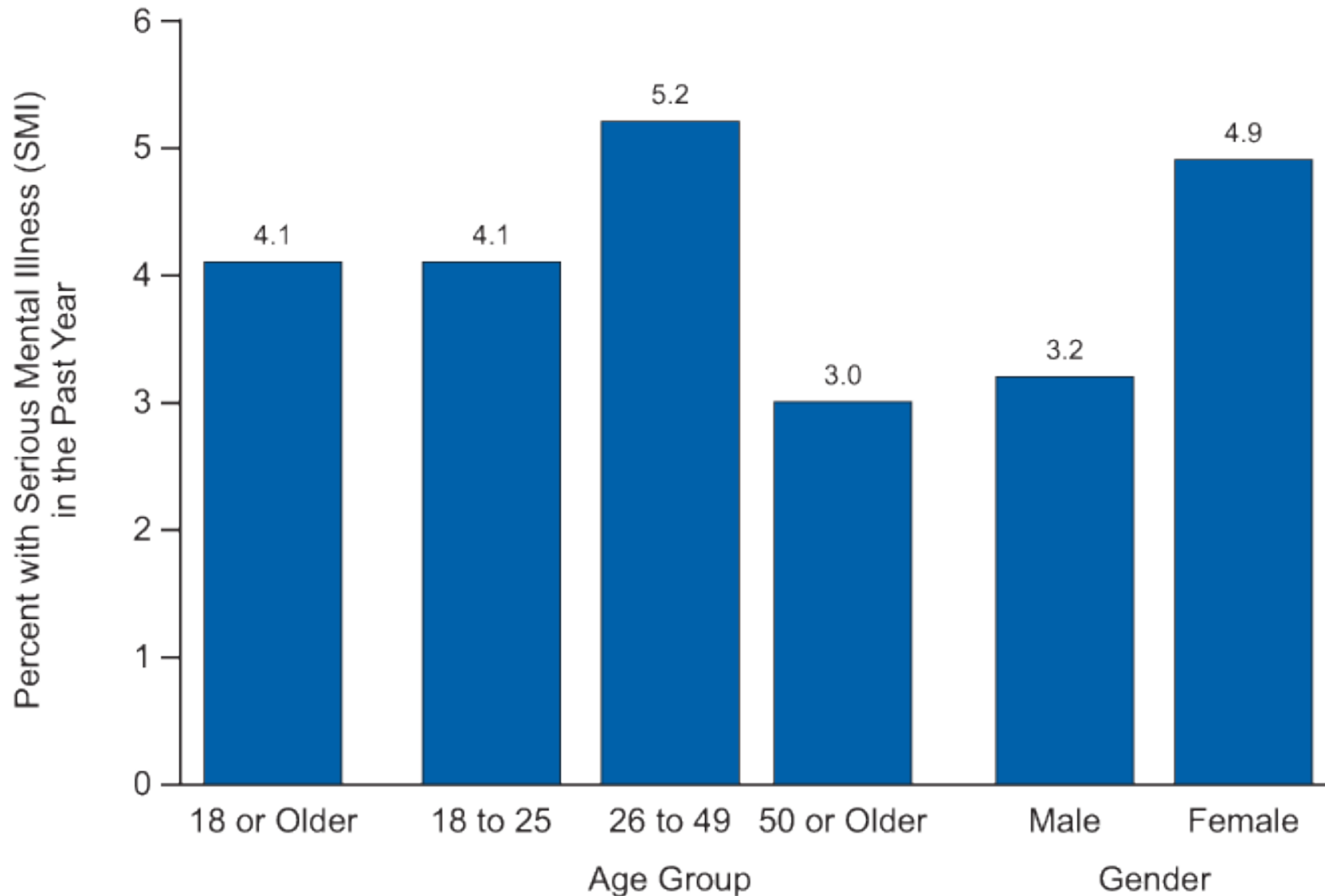
* http://www.samhsa.gov/data/NSDUH/2k12MH_FindingsandDetTables/2K12MHF/NSDUHmhfr2012.htm#sec2-2

Epidemiology of SMI (SAMHSA Definition)

- Prevalence of AMI in NSDUH: 18.6%
- Prevalence of SMI in NSDUH: 4.1%
- No change since prior surveys

* http://www.samhsa.gov/data/NSDUH/2k12MH_FindingsandDetTables/2K12MHF/NSDUHmhfr2012.htm#sec2-2

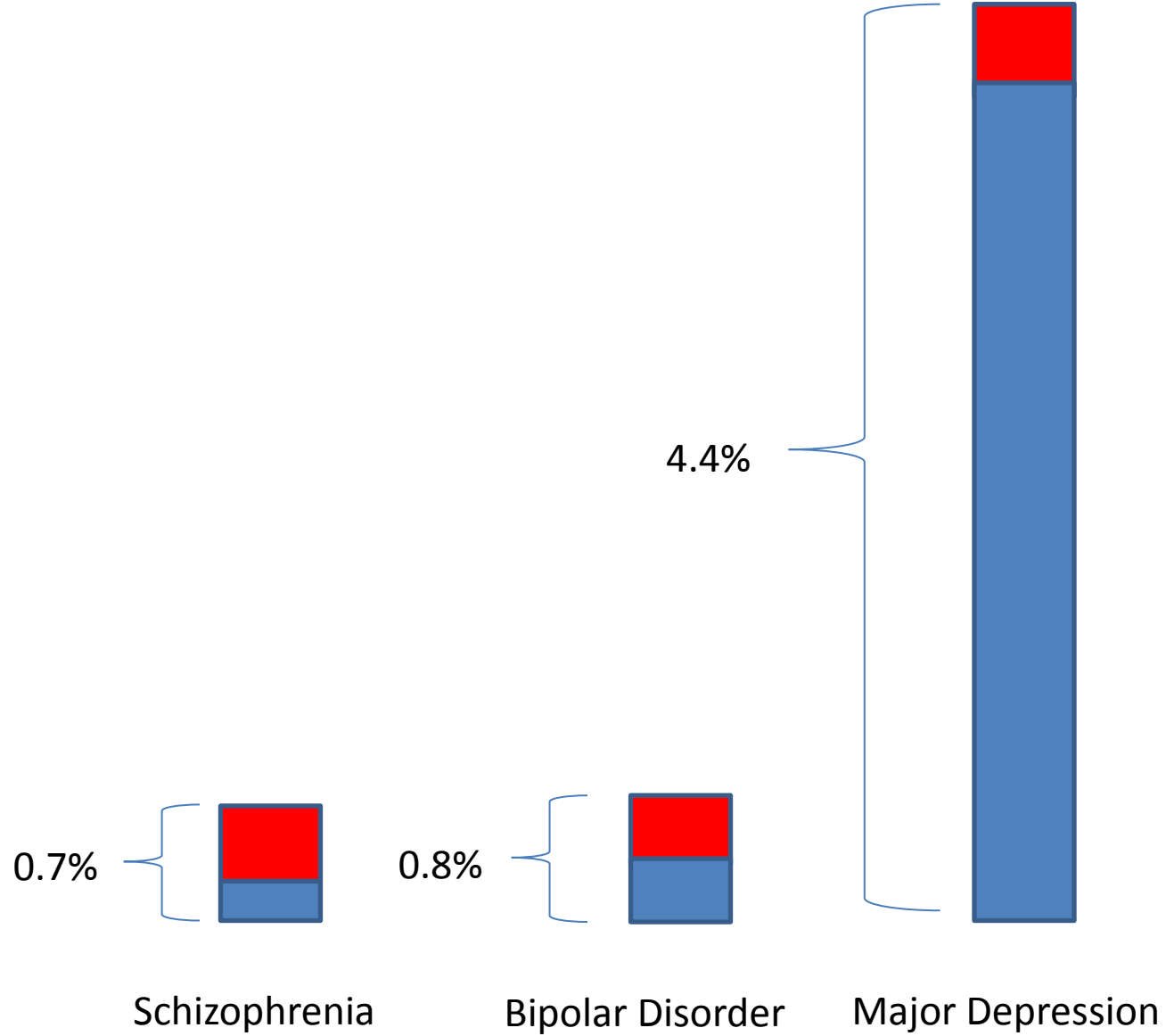
SMI, by Age and Sex



The third approach
(synthetic)

Synthetic Approaches

- Schizophrenia:
 - prevalence $< 1\%$
 - 63% in a substantially symptomatic state
 - Disability weights: 0.76 & 0.57
- Major depressive disorder:
 - Prevalence 4.4%
 - 10.8% in “severe category”
 - Disability weights: 0.16 – 0.66



Example of a Synthetic Approach

- NIMH (1987) definition
 - Non-organic psychosis or personality disorder
 - Duration > 2 years
 - Disability (3 of 8 specified criteria)
- Ruggeri (2000) modified this:
 - Used $GAF \leq 50$ for disability
 - Excluded personality disorders
 - 2.55 per 1000 (London)
 - 1.34 per 1000 (Verona)
 - 58% of those with $GAF \leq 50$ had psychosis

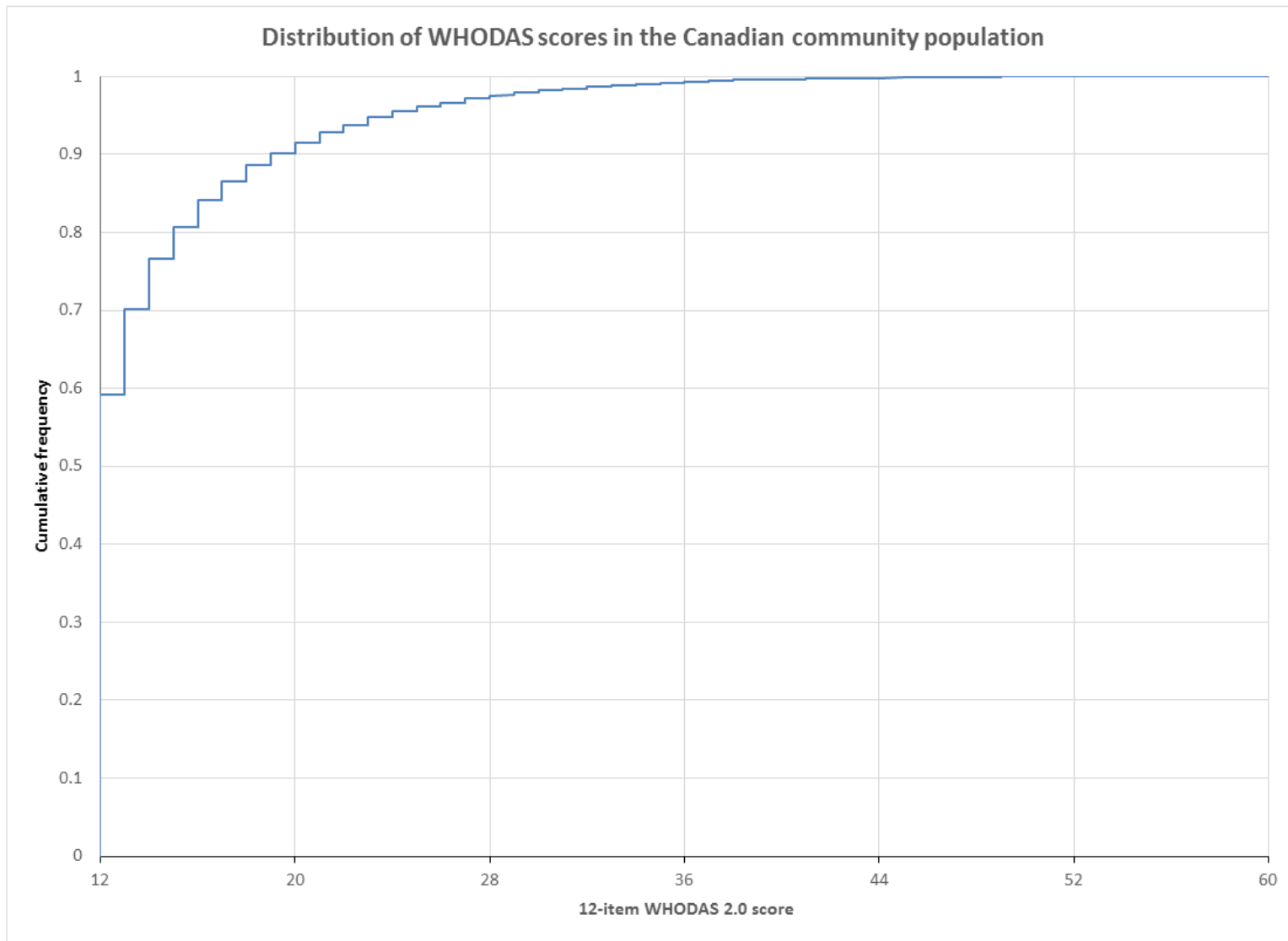
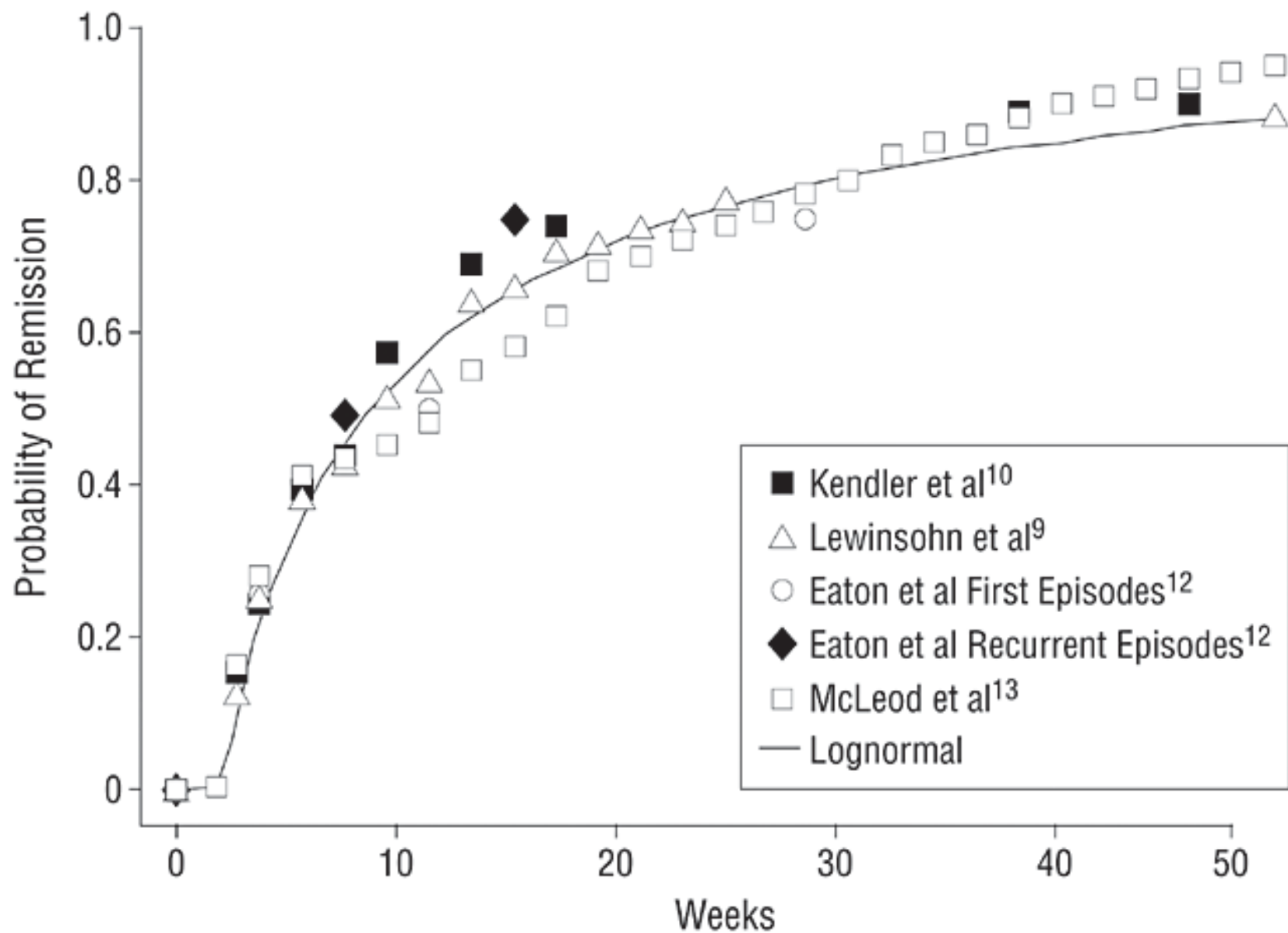
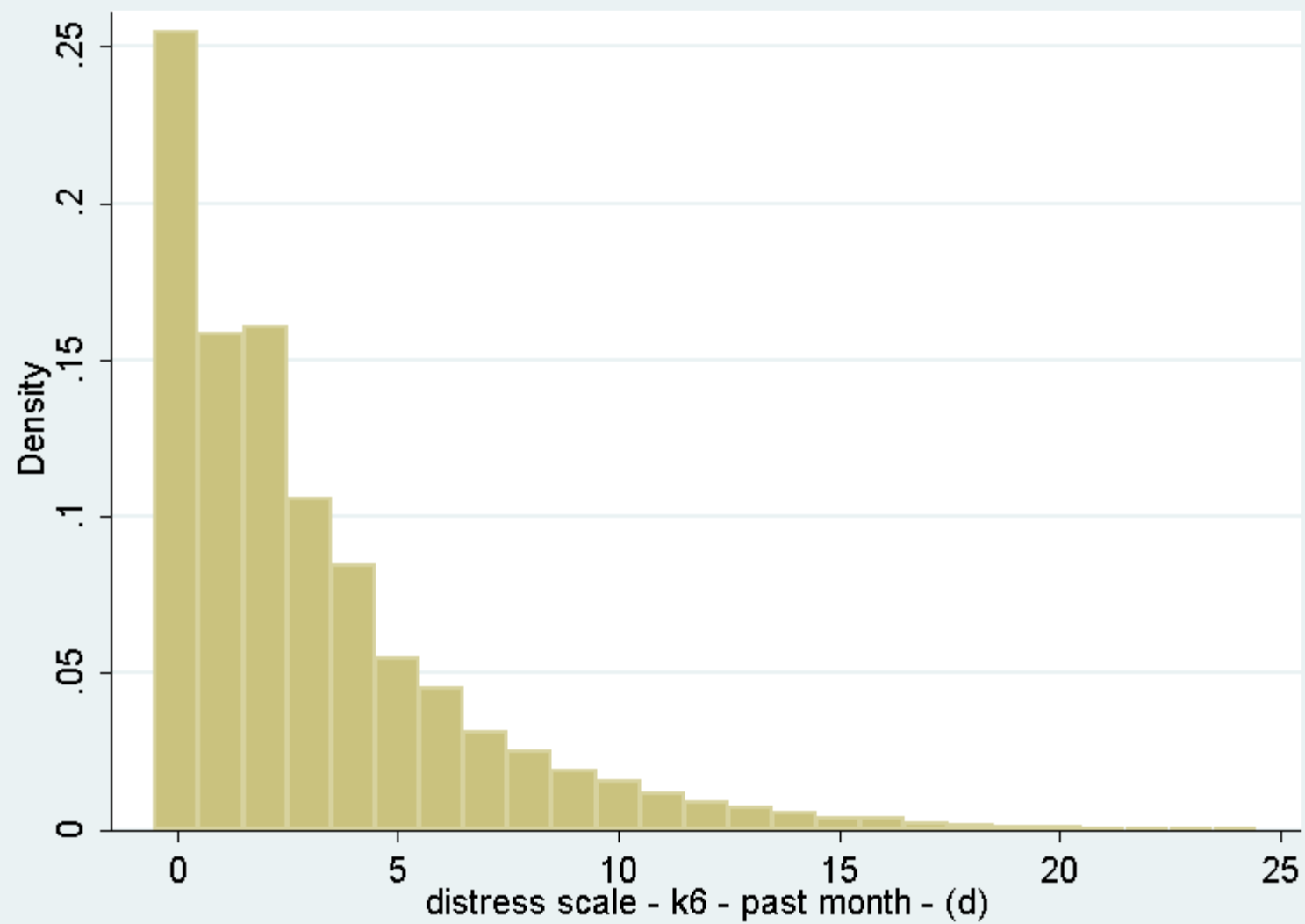


Figure 1. The distribution of 12-item WHODAS 2.0 scores in the community population, allowing for the imputation of the population percentiles of scores.





Trade-offs with Different Approaches

- Restrictive, diagnosis-based definitions may align better with specialized service needs
- Those not based on diagnoses may be more “person first” or “patient centred”

A “Slow Motion” Epidemic?

