

## Supplementary Online Content

Olfson M, Wang S, Wall M, Marcus SC, Blanco C. Trends in serious psychological distress and outpatient mental health care of US adults. *JAMA Psychiatry*. Published online November 28, 2018. doi:10.1001/jamapsychiatry.2018.3550

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This supplementary material has been provided by the authors to give readers additional information about their work.

<b>eTable 1.</b> Comparative Odds of Serious Psychological Distress Among Adults Stratified by Age, Sex, and Race/Ethnicity in 2004-05, 2009-10, and 2014-15, United States			
<b>Serious Psychological Distress†</b>	2004-05 OR (95% CI)	2009-10 OR (95% CI)	2014-15 OR (95% CI)
<b>Age</b>			
Ages 40-59 years (18-39 years reference)	1.43 (1.26, 1.62)	1.41 (1.25, 1.58)	1.44 (1.22, 1.70)
Ages 60+ years (18-39 years reference)	1.35 (1.16, 1.56)	1.32 (1.13, 1.55)	1.24 (1.04, 1.49)
<b>Sex</b>			
Female (male reference)	1.46 (1.29, 1.65)	1.30 (1.18, 1.44)	1.40 (1.24, 1.59)
<b>Race/Ethnicity</b>			
African American (white reference)	1.14 (0.97, 1.34)	1.09 (0.96, 1.24)	0.95 (0.80, 1.13)
Hispanic (white is reference)	1.36 (1.19, 1.56)	1.09 (0.94, 1.27)	0.93 (0.78, 1.11)
Other (white is reference)	1.16 (0.93, 1.46)	0.86 (0.67, 1.09)	0.85 (0.67, 1.08)
Data from Medical Expenditure Panel Surveys. Analysis limited to ages 18+ years.			
†Serious psychological distress based on Kessler-6 score of $\geq 12$ .			
*Odds ratios (OR) denote unadjusted odds of mental health service use in period of first listed demographic group in relation to reference group.			

<b>eTable 2. Trends in Use of Any Outpatient Mental Health Service by Adults</b>					
<b>Variable</b>	<b>Use of Any Outpatient Mental Health Service</b>			<b>Period Effect† OR (95% CI)</b>	<b>p-value for Interaction††</b>
	<b>2004-05 % of adults</b>	<b>2009-10 % of adults</b>	<b>2014-15 % of adults</b>		
<b>All adults</b>	19.08	20.44	23.00	1.25 (1.17, 1.34)	
1. Serious psychological distress (K-6 ≥13)	54.17	58.63	68.40	1.84 (1.53, 2.23)	1 vs 2: 0.02
2. Less serious psychological distress (K-6=1 to 12)	21.40	23.15	28.57	1.46 (1.36, 1.57)	2 vs 3: 0.006
3. No psychological distress (K-6=0)	9.72	9.77	11.97	1.24 (1.11, 1.38)	1 vs 3: 0.0004

Data from Medical Expenditure Panel Surveys and presented as annualized percentages.  
† Period effects represent the age and sex adjusted odds ratios (OR) of the outpatient mental health services in 2014-15 with 2004-05 as reference.  
†† Interaction *p*-values test whether changes in outpatient mental health service use over time differed across psychological distress strata.

<b>eTable 3. Estimated Number of Adults in Millions Receiving Any Outpatient Mental Health Services by Serious Psychological Distress</b>			
<b>Variable</b>	<b>Use of Any Outpatient Mental Health Service</b>		
	2004-05 estimated millions of adults (95% CI)	2009-10 estimated millions of adults (95% CI)	2014-15 estimated millions of adults (95% CI)
<b>All adults</b>	41.82 (38.97, 44.68)	47.09 (44.68, 49.49)	56.00 (52.77, 59.20)
Serious psychological distress	5.59 (5.07, 6.11)	6.48 (5.92, 7.04)	5.96 (5.37, 6.55)
Less serious or no serious psychological distress	35.17 (32.64, 37.71)	39.07 (37.00, 41.14)	47.69 (44.80, 50.61)
<b>Adults 18-39 years of age</b>	10.94 (9.83, 12.05)	12.66 (11.59, 13.72)	14.65 (13.30, 15.99)
Serious psychological distress	1.37 (1.13, 1.60)	1.74 (1.49, 2.00)	1.71 (1.42, 2.00)
Less serious or no psychological distress	9.44 (8.44, 10.44)	10.61 (9.68, 11.53)	12.61 (11.39, 13.83)
<b>Adults 40-59 years of age</b>	18.26 (16.85, 19.68)	19.12 (17.96, 20.28)	20.49 (18.99, 21.98)
Serious psychological distress	2.77 (2.44, 3.10)	2.87 (2.49, 3.25)	2.56 (2.22, 2.91)
Less serious or no psychological distress	15.12 (13.88, 16.36)	15.69 (14.71, 16.67)	17.11 (15.79, 18.43)
<b>Adults 60+ years of age</b>	12.62 (11.68, 13.56)	15.31 (14.29, 16.33)	20.86 (19.42, 22.30)
Serious psychological distress	1.45 (1.23, 1.68)	1.87 (1.60, 2.14)	1.69 (1.43, 1.95)
Less serious or no psychological distress	10.61 (9.80, 11.42)	12.77 (11.88, 13.67)	17.97 (16.65, 19.29)
<b>Male adults</b>	14.16 (13.02, 15.30)	16.88 (15.75, 18.01)	20.38 (19.04, 21.73)
Serious psychological distress	1.96 (1.69, 2.23)	2.45 (2.12, 2.77)	2.12 (1.81, 2.43)
Less serious or no psychological distress	11.91 (10.85, 12.97)	13.80 (12.81, 14.80)	17.31 (16.11, 18.52)
<b>Female adults</b>	27.66 (25.64, 29.67)	30.21 (28.58, 31.85)	35.61 (33.42, 37.80)
Serious psychological distress	3.63 (3.22, 4.05)	4.03 (3.64, 4.43)	3.84 (3.42, 4.26)
Less serious or no psychological distress	23.27 (21.52, 25.01)	25.26 (23.87, 26.66)	30.38 (28.42, 32.34)
<b>White adults</b>	34.37 (31.73, 37.01)	38.30 (36.00, 40.60)	44.23 (41.27, 47.19)
Serious psychological distress	4.11 (3.66, 4.56)	4.84 (4.34, 5.35)	4.35 (3.82, 4.87)
Less serious or no psychological distress	29.49 (27.14, 31.84)	32.33 (30.33, 34.34)	38.15 (35.49, 40.81)
<b>Non-white adults</b>	7.46 (6.79, 8.12)	8.79 (8.09, 9.50)	11.77 (10.82, 12.72)
Serious psychological distress	1.48 (1.28, 1.68)	1.64 (1.39, 1.89)	1.61 (1.39, 1.84)
Less serious or no psychological distress	5.68 (5.14, 6.23)	6.73 (6.19, 7.28)	9.54 (8.72, 10.36)

Data from Medical Expenditure Panel Surveys.

<b>eTable 4. Comparative Odds of Any Mental Health Service Use by Adults Stratified by Age, Sex, and Race/Ethnicity in 2004-05, 2009-10, and 2014-15, United States</b>			
<b>Mental Health Service</b>	<b>2004-05 OR (95% CI)</b>	<b>2009-10 OR (95% CI)</b>	<b>2014-15 OR (95% CI)</b>
<b>Any mental health service</b>			
Ages 40-59 years (18-39 years reference)	2.02 (1.85, 2.21)	1.80 (1.66, 1.96)	1.71 (1.55, 1.88)
Ages 60+ (18-39 years reference)	2.44 (2.21, 2.70)	2.30 (2.11, 2.51)	2.48 (2.24, 2.74)
Female (male reference)	2.09 (1.93, 2.25)	1.92 (1.78, 2.07)	1.88 (1.76, 2.00)
White (non-white reference)	2.32 (2.13, 2.52)	2.39 (2.21, 2.59)	2.54 (2.36, 2.74)
<b>Psychotherapy</b>			
Ages 40-59 years (18-39 years reference)	1.38 (1.20, 1.59)	1.05 (0.90, 1.22)	1.06 (0.92, 1.21)
Ages 60+ (18-39 years reference)	0.67 (0.54, 0.82)	0.55 (0.46, 0.66)	0.68 (0.56, 0.82)
Female (male reference)	1.67 (1.48, 1.88)	1.44 (1.26, 1.65)	1.80 (1.62, 2.00)
White (non-white reference)	1.70 (1.46, 1.98)	1.70 (1.48, 1.95)	1.85 (1.59, 2.14)
<b>Any psychotropic medication</b>			
Ages 40-59 years (18-39 years reference)	2.17 (1.98, 2.38)	1.95 (1.80, 2.13)	1.92 (1.74, 2.14)
Ages 60+ (18-39 years reference)	2.74 (2.46, 3.05)	2.62 (2.39, 2.87)	2.85 (2.56, 3.17)
Female (male reference)	2.15 (1.98, 2.33)	1.95 (1.81, 2.11)	1.90 (1.78, 2.03)
White (non-white reference)	2.40 (2.19, 2.62)	2.48 (2.29, 2.69)	2.63 (2.44, 2.85)
<b>Antidepressants</b>			
Ages 40-59 years (18-39 years reference)	2.10 (1.90, 2.32)	2.03 (1.83, 2.24)	2.06 (1.83, 2.32)
Ages 60+ (18-39 years reference)	2.00 (1.77, 2.26)	2.24 (2.00, 2.51)	2.67 (2.37, 3.00)
Female (male reference)	2.40 (2.19, 2.63)	2.33 (2.11, 2.56)	2.24 (2.05, 2.45)
White (non-white reference)	2.66 (2.38, 2.96)	2.84 (2.56, 3.14)	3.04 (2.77, 3.33)
<b>Anxiolytics/sedatives</b>			
Ages 40-59 years (18-39 years reference)	2.92 (2.51, 3.40)	2.21 (1.95, 2.52)	2.11 (1.84, 2.42)
Ages 60+ (18-39 years reference)	4.35 (3.71, 5.10)	2.82 (2.44, 3.27)	3.13 (2.71, 3.62)
Female (male reference)	1.87 (1.67, 2.09)	1.80 (1.63, 1.99)	1.72 (1.55, 1.91)
White (non-white reference)	2.20 (1.94, 2.50)	2.26 (2.00, 2.55)	2.45 (2.18, 2.75)
<b>Antipsychotics</b>			
Ages 40-59 years (18-39 years reference)	1.45 (1.14, 1.85)	1.20 (0.93, 1.55)	1.46 (1.16, 1.84)
Ages 60+ (18-39 years reference)	1.15 (0.83, 1.60)	0.98 (0.73, 1.30)	1.22 (0.94, 1.59)
Female (male reference)	1.43 (1.15, 1.77)	1.19 (0.92, 1.54)	1.46 (1.20, 1.78)
White (non-white reference)	0.89 (0.69, 1.15)	1.20 (0.997, 1.45)	1.42 (1.18, 1.72)
<b>Mood stabilizers</b>			
Ages 40-59 years (18-39 years reference)	2.38 (1.99, 2.84)	1.76 (1.45, 2.14)	2.23 (1.89, 2.64)
Ages 60+ (18-39 years reference)	2.73 (2.17, 3.45)	2.32 (1.91, 2.83)	3.12 (2.55, 3.82)
Female (male reference)	1.75 (1.48, 2.07)	1.63 (1.40, 1.90)	1.52 (1.34, 1.73)
White (non-white reference)	1.75 (1.43, 2.13)	1.85 (1.57, 2.17)	1.85 (1.60, 2.15)
<b>Stimulants</b>			
Ages 40-59 years (18-39 years reference)	1.23 (0.94, 1.60)	0.91 (0.73, 1.13)	0.73 (0.58, 0.92)
Ages 60+ (18-39 years reference)	1.54 (1.16, 2.05)	1.07 (0.86, 1.33)	0.78 (0.63, 0.98)
Female (male reference)	1.38 (1.15, 1.66)	1.10 (0.89, 1.36)	1.21 (1.01, 1.45)
White (non-white reference)	1.54 (1.20, 1.98)	1.90 (1.57, 2.29)	1.93 (1.59, 2.33)
Data from Medical Expenditure Panel Surveys. Analysis limited to ages 18+ years. Odds ratios (OR) denote unadjusted odds of mental health service use in period of first listed demographic group in relation to reference group			