

# The Big Picture and Intro to SSRIs

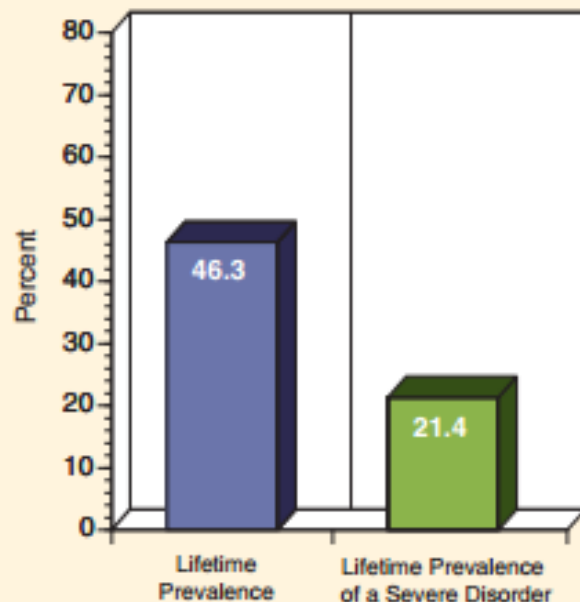
PEDIATRIC MENTAL HEALTH ECHO CLINIC MONTANA

10 APRIL 2019

# Any Disorder

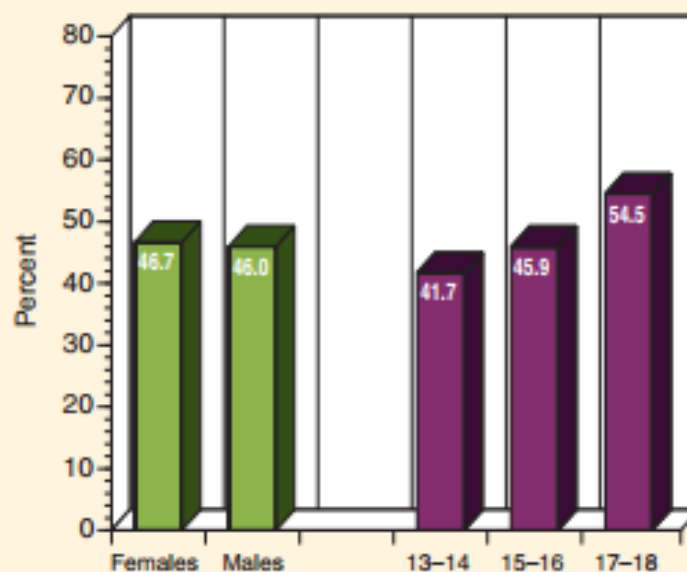
## Lifetime Prevalence of 13 to 18 year olds

- **Lifetime Prevalence:** 46.3% of 13 to 18 year olds
- **Lifetime Prevalence of "Severe" Disorder:** 21.4% of 13 to 18 year olds have a "severe" disorder



## Demographics (for lifetime prevalence)

- **Sex:** Not statistically different
- **Age:** Statistically different



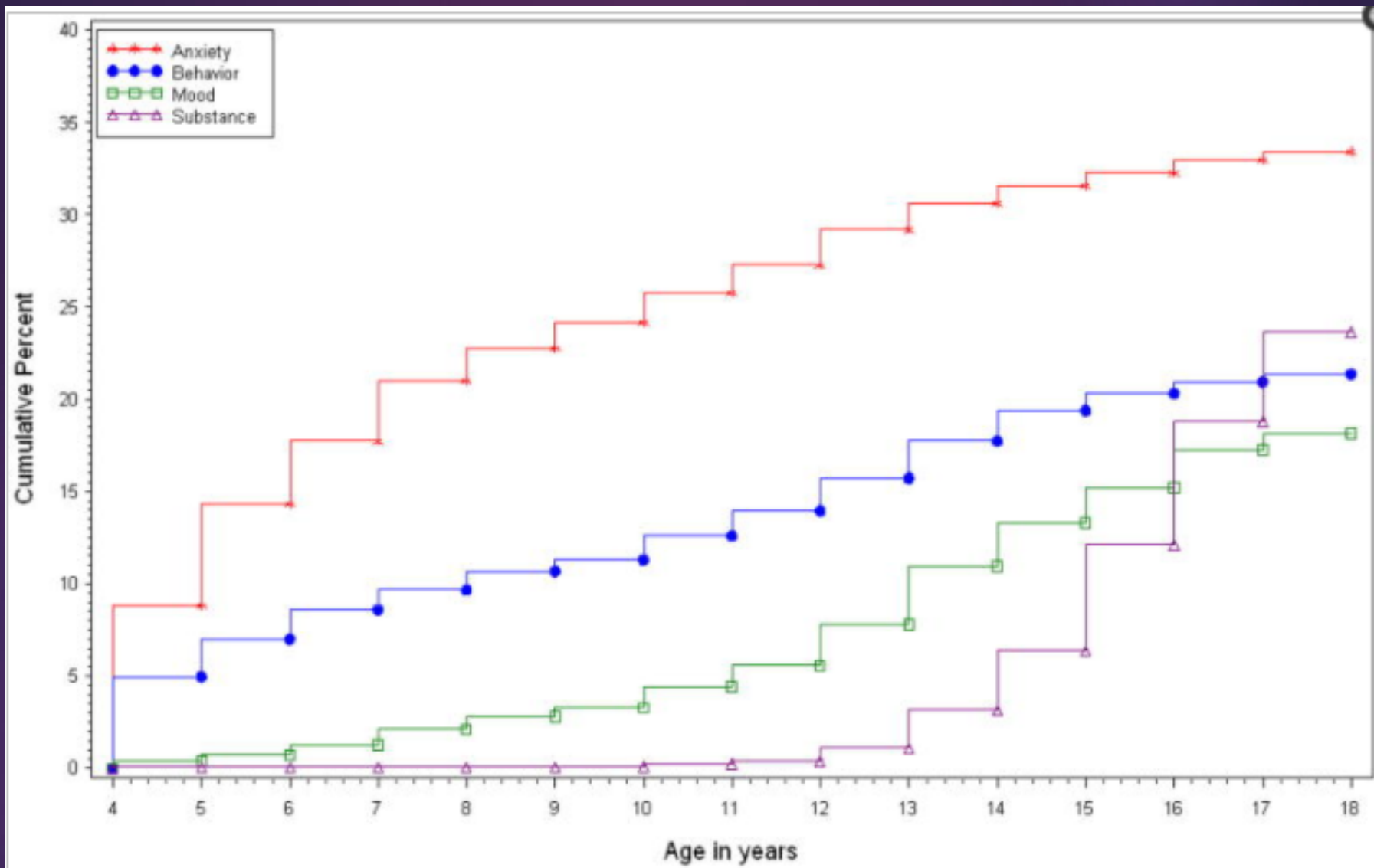
- **Race:** Statistically significant differences were found between non-Hispanic whites and other races

Merikangas KR, He J, Burstein M, Swanson SA, Avenevoli S, Cui L, Benjet C, Georgiades K, Swendsen J. Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Study-Adolescent Supplement (NCS-A). *J Am Acad Child Adolesc Psychiatry*. 2010 Oct;49(10):980-989.

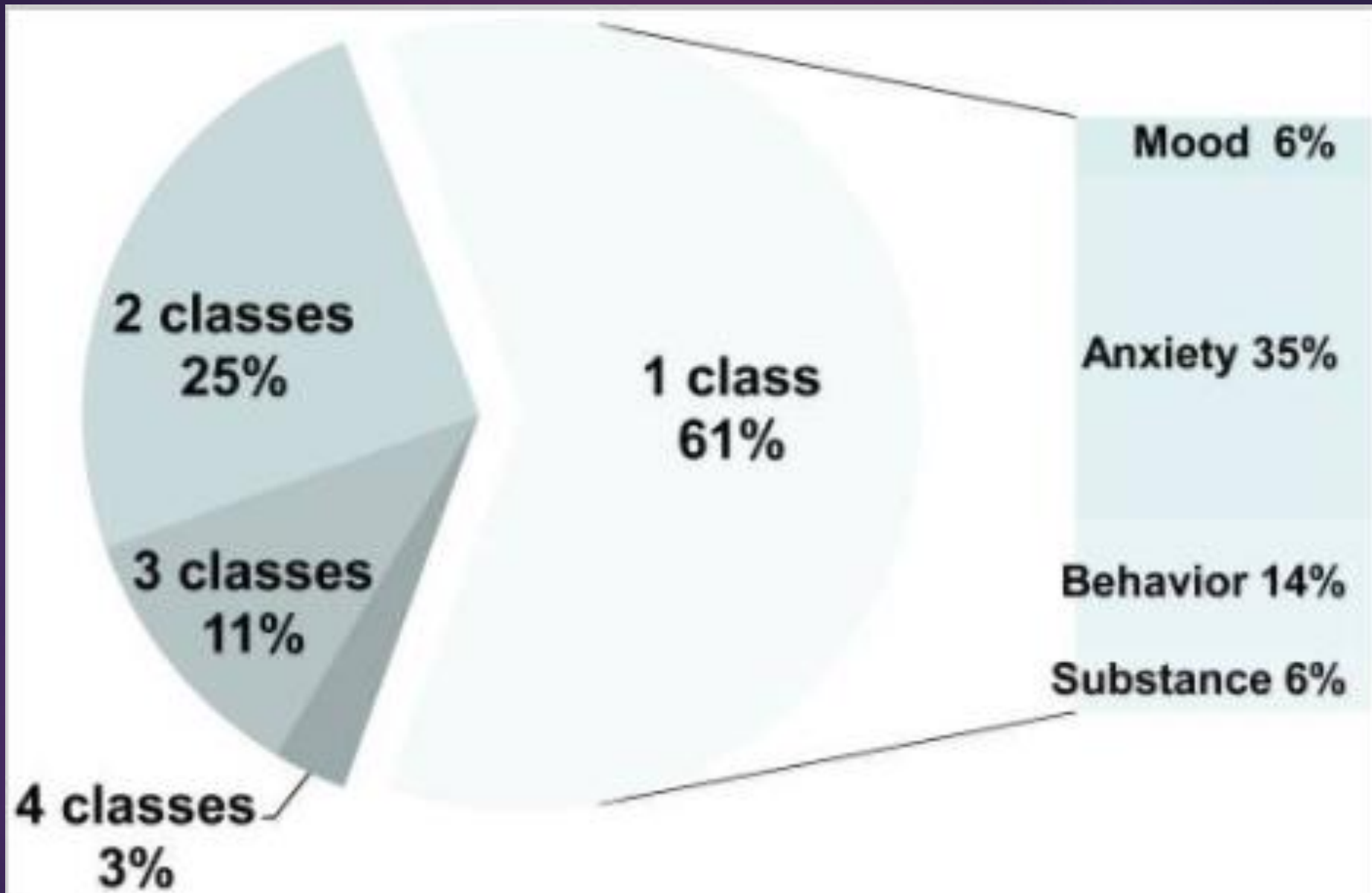
Sociodemographic Characteristics	Category	N	Weighted %
Sex	Male	4,953	51.3
	Female	5,170	48.7
Age <sup>a</sup>	13–14	3,870	36.2
	15	1,887	20.5
	16	2,010	21.0
	17–18	2,356	22.3
Race	Non hispanic white	5,634	65.6
	Non hispanic black	1,953	15.1
	Hispanic	1,914	14.4
	Other	622	5.0
Parental education	less than high school	1,684	15.5
	High school	3,081	29.7
	Some college	1,998	19.4
	College grad	3,360	35.3
Parental marital status <sup>b</sup>	married/cohabiting	4,602	78.6
	previous married	1,009	17.5
	never married	308	3.9
Poverty Index Ratio (PIR)	PIR $\leq$ 1.5 poor	1,717	14.7
	PIR $\leq$ 3.0	2,023	19.1
	PIR $\leq$ 6.0	3,101	31.9
	PIR $>$ 6	3,282	34.3
Urbanicity	Metro	4,508	47.5
	Other urban	3,304	37.6
	Rural	2,311	14.9

DSM-IV Disorder <sup>a</sup>	DSM-IV Disorders													
	Sex				Age						Total		with Severe Impairment	
	Female		Male		13–14 yr		15–16 yr		17–18 yr					
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Mood disorders</b>														
Major depressive disorder or dysthymia	15.9	1.3	7.7	0.8	8.4	1.3	12.6	1.3	15.4	1.4	11.7	0.9	8.7	0.8
Bipolar I or II	3.3	0.4	2.6	0.3	1.9	0.3	3.1	0.3	4.3	0.7	2.9	0.3	2.6	0.2
Any mood disorder	18.3	1.4	10.5	1.1	10.5	1.3	15.5	1.4	18.1	1.6	14.3	1.0	11.2	1.0
<b>Anxiety disorders</b>														
Agoraphobia	3.4	0.4	1.4	0.3	2.5	0.4	2.5	0.4	2.0	0.5	2.4	0.2	2.4 <sup>c</sup>	0.2
Generalized Anxiety Disorder	3.0	0.6	1.5	0.3	1.0	0.3	2.8	0.6	3.0	0.5	2.2	0.3	0.9	0.2
Social phobia	11.2	0.7	7.0	0.5	7.7	0.6	9.7	0.7	10.1	1.0	9.1	0.4	1.3	0.2
Specific phobia	22.1	1.1	16.7	0.9	21.6	1.6	18.3	1.0	17.7	1.3	19.3	0.8	0.6	0.1
Panic disorder	2.6	0.3	2.0	0.3	1.8	0.4	2.3	0.3	3.3	0.7	2.3	0.2	2.3 <sup>c</sup>	0.2
Post-traumatic stress disorder	8.0	0.7	2.3	0.4	3.7	0.5	5.1	0.5	7.0	0.8	5.0	0.3	1.5	0.2
Separation Anxiety disorder	9.0	0.6	6.3	0.5	7.8	0.6	8.0	0.7	6.7	0.8	7.6	0.3	0.6	0.1
Any anxiety disorder	38.0	1.4	26.1	0.8	31.4	1.9	32.1	1.0	32.3	1.7	31.9	0.8	8.3	0.4
<b>Behavior disorders</b>														
Attention deficit hyperactivity disorder	4.2	0.5	13.0	1.0	8.8	0.9	8.6	0.8	9.0	1.1	8.7	0.6	4.2	0.4
Oppositional defiant disorder (ODD)	11.3	0.9	13.9	1.2	12.0	1.2	12.6	1.3	13.6	1.4	12.6	0.9	6.5	0.7
Conduct disorder	5.8	1.1	7.9	1.2	4.4	1.2	7.5	1.2	9.6	1.3	6.8	0.9	2.2	0.4
Any behavior disorder	15.5	1.2	23.5	1.6	18.2	1.5	19.5	1.7	21.9	1.8	19.6	1.2	9.6	0.8

DSM-IV Disorder <sup>a</sup>	DSM-IV Disorders													
	Sex				Age						Total		with Severe Impairment	
	Female		Male		13–14 yr		15–16 yr		17–18 yr					
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Substance use disorders</b>														
Alcohol abuse/dependence	5.8	0.5	7.0	0.6	1.3	0.3	6.5	0.6	14.5	1.2	6.4	0.4	---	---
Drug abuse/dependence	8.0	0.8	9.8	0.8	3.4	0.6	9.7	0.9	16.3	1.5	8.9	0.7	---	---
Any substance use disorder	10.2	0.9	12.5	0.8	3.7	0.6	12.2	0.9	22.3	1.6	11.4	0.7	---	---
<b>Other</b>														
Eating disorders	3.8	0.4	1.5	0.3	2.4	0.4	2.8	0.3	3.0	0.4	2.7	0.2	---	---
<b>Any Class<sup>b</sup></b>	51.0	1.4	48.1	1.6	45.3	2.1	49.3	1.9	56.7	2.7	49.5	1.2	22.2 <sup>d</sup>	1.0
1 class	30.3	1.3	30.3	1.3	31.2	1.8	29.4	1.4	30.4	2.3	30.3	0.9	16.2	0.6
2 classes	12.6	0.9	12.1	1.2	9.2	1.0	13.0	1.3	16.5	1.7	12.4	0.9	5.2	0.7
3–4 classes	8.1	1.1	5.7	0.6	5.0	1.1	6.9	0.9	9.9	1.3	6.9	0.7	0.8	0.2

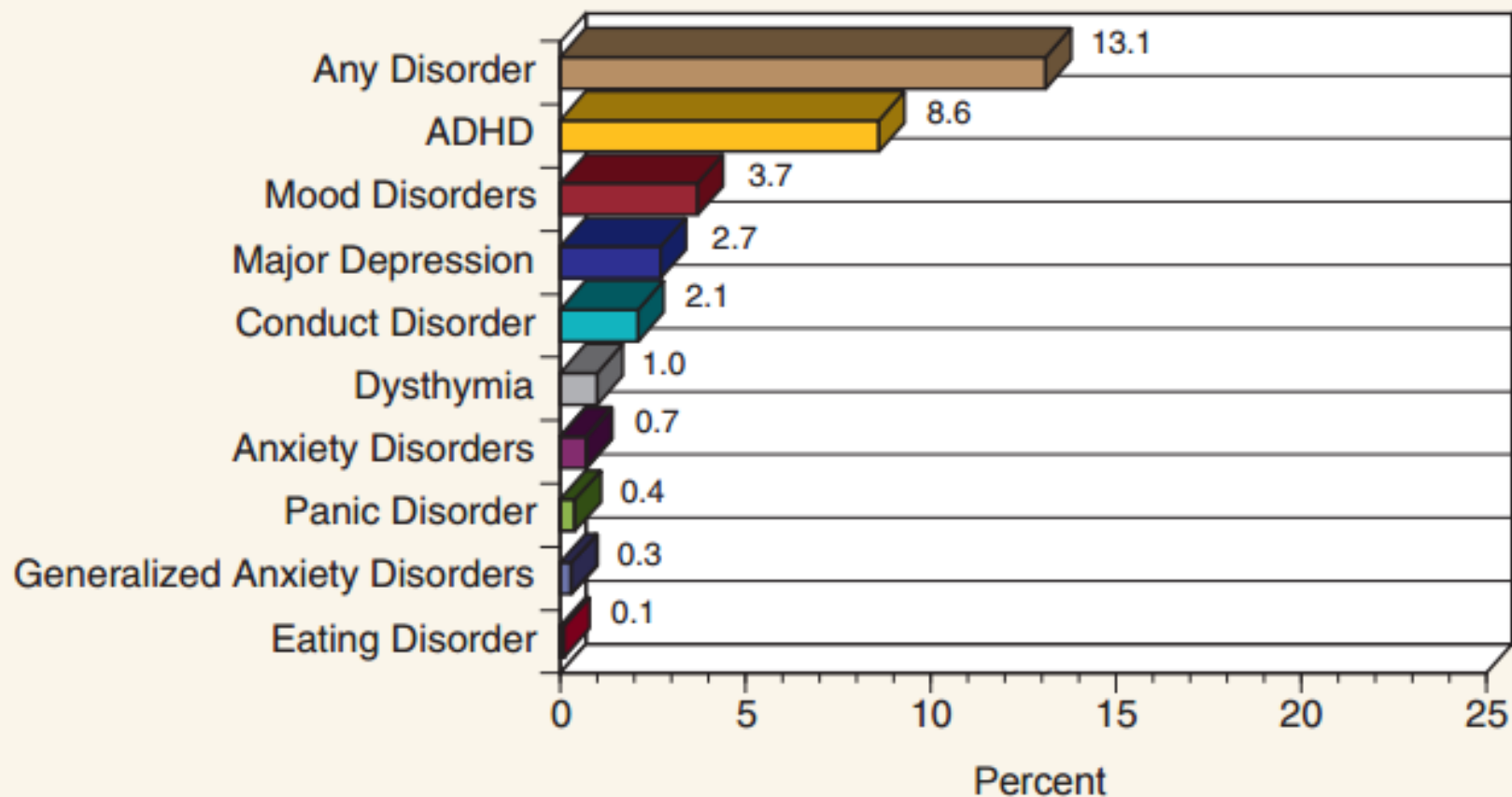


Cumulative Lifetime Prevalence of Major Classes of DSM-IV Disorders Among Adolescents (N=10,123)





## 12-month Prevalence for Children (8 to 15 years)



Data courtesy of CDC



# Anxiety

Starting at a very low dose of SSRI for the first week or two with anxiety disorders is especially essential to reduce the child's experience of side effects (augmented by associated somatic anxieties).

Name	Dosage Form	Usual starting dose for adolescents	Increase increment (after ~4 weeks)	RCT anxiety treatment benefit in kids	FDA anxiety approved for children?	Editorial Comments
Fluoxetine (Prozac)	10, 20, 40mg 20mg/5ml	5-10 mg/day (60mg max)*	10-20mg**	Yes	Yes (For OCD >7yr)	Long 1/2 life, no SE from a missed dose
Sertraline (Zoloft)	25, 50, 100mg 20mg/ml	25 mg/day (200mg max)*	25-50mg**	Yes	Yes (For OCD >6yr)	May be prone to SE from weaning off
<i>Sertraline and Fluoxetine are both first line medications for child anxiety disorders, per the evidence base</i>						
Fluvoxamine (Luvox)	25, 50, 100mg	25 mg/day (300mg max)*	50 mg**	Yes	Yes (For OCD >8yr)	Often more side effect than other SSRI's, has many drug interactions
Paroxetine (Paxil)	10, 20, 30, and 40 mg 10mg/5ml 12.5, 25, 37.5mg CR forms	5-10 mg/day (60mg max)*	10-20mg**	Yes	No	Not preferred if child also has depression. Can have short 1/2 life
Citalopram (Celexa)	10, 20, 40 mg 10mg/5ml	5-10 mg/day (40mg max)*	10-20mg**	Yes	No	Very few drug interactions
Escitalopram (Lexapro)	5, 10, 20mg 5mg/5ml	2.5 to 5 mg/day (20mg max)*	5-10mg**	No	No	Active isomer of citalopram

\* Recommend decrease maximum dosage by at least 1/3 for pre-pubertal children

\*\* Recommend using the lower dose increase increments for younger children.

Successful medication trials should continue for 6-12 months.

# Depression

Drug Name	Dosage Form	Usual starting dose for adolescent	Increase Increment (after ~4 weeks)	RCT evidence in kids	FDA depression approved for children?	Editorial Comments
Fluoxetine (Prozac)	10, 20, 40mg 20mg/5ml	10 mg/day (60mg max)*	10-20mg**	Yes	Yes (over age 8)	Long 1/2 life, no side effect from a missed dose
<i>Fluoxetine considered first line due to stronger evidence base in children</i>						
Sertraline (Zoloft)	25, 50, 100mg 20mg/ml	25 mg/day (200mg max)*	25-50mg**	Yes	No	May be prone to side effects when stopping
Escitalopram (Lexapro)	5, 10, 20mg 5mg/5ml	5 mg/day (20mg max)*	5-10mg**	Yes	Yes (for adolescents)	The active isomer of citalopram.
<i>Escitalopram and Sertraline considered second line per the evidence base in children</i>						
Citalopram (Celexa)	10, 20, 40mg 10mg/5ml	10 mg/day (40mg max)*	10-20mg**	Yes	No	Few drug interactions
Bupropion (Wellbutrin)	75, 100mg 100, 150, 200mg SR forms 150, 300mg XL forms	75 mg/day (later dose this BID) (400mg max)*	75-100mg**	No	No	Can have more agitation risk. Avoid if eat d/o. Also has use for ADHD treatment.
Mirtazapine (Remeron)	15, 30, 45mg	15 mg/day (45mg max)*	15mg**	No	No	Sedating, increases appetite
Venlafaxine (Effexor)	25, 37.5, 50, 75, 100mg 37.5, 75, 150 mg ER forms	37.5 mg/day (225mg max)*	37.5 to 75mg**	No  (May have higher SI risk than others for children)	No	Only recommended for older adolescents.  Withdrawal symptoms can be severe.
<i>Others above considered third line treatments per the evidence base in children</i>						

Starting doses in children less than 13 may need to be lowered using liquid forms

Successful medication trials should continue for 6 to 12 months

\* Recommend decrease maximum dosage by around 1/3 for pre-pubertal children

\*\* Recommend using the lower dose increase increments for younger children.