

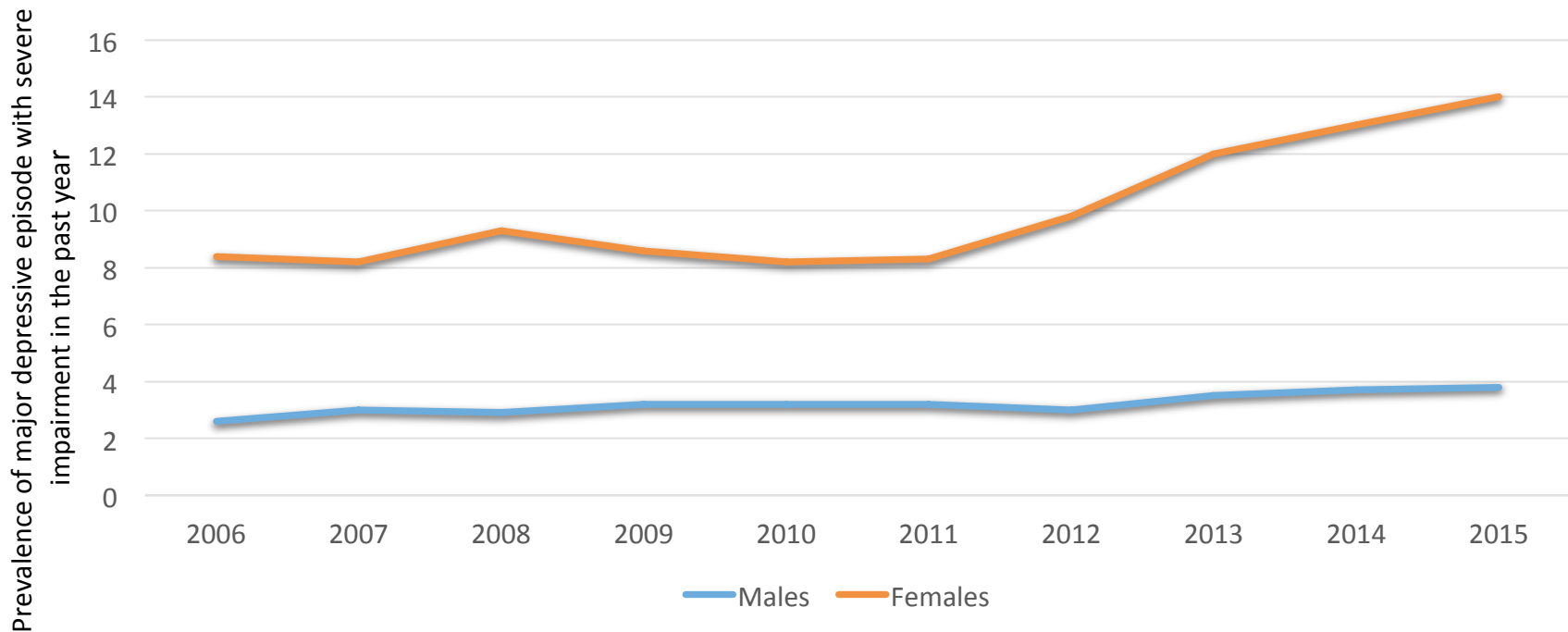
# Adolescent Depression



- In the United States in 2015, 11.4% of youth aged 12 to 17 (nearly 3 million adolescents) experienced at least one episode of depression in the past year (NSDUH, 2016).



# Had at Least One Major Depressive Episode (MDE) with Severe Impairment in Past Year, ages 12-17 years



Center for Behavioral Health Statistics and Quality. (2016). Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health (HHS Publication No. SMA 16-4984, NSDUH Series H-51).

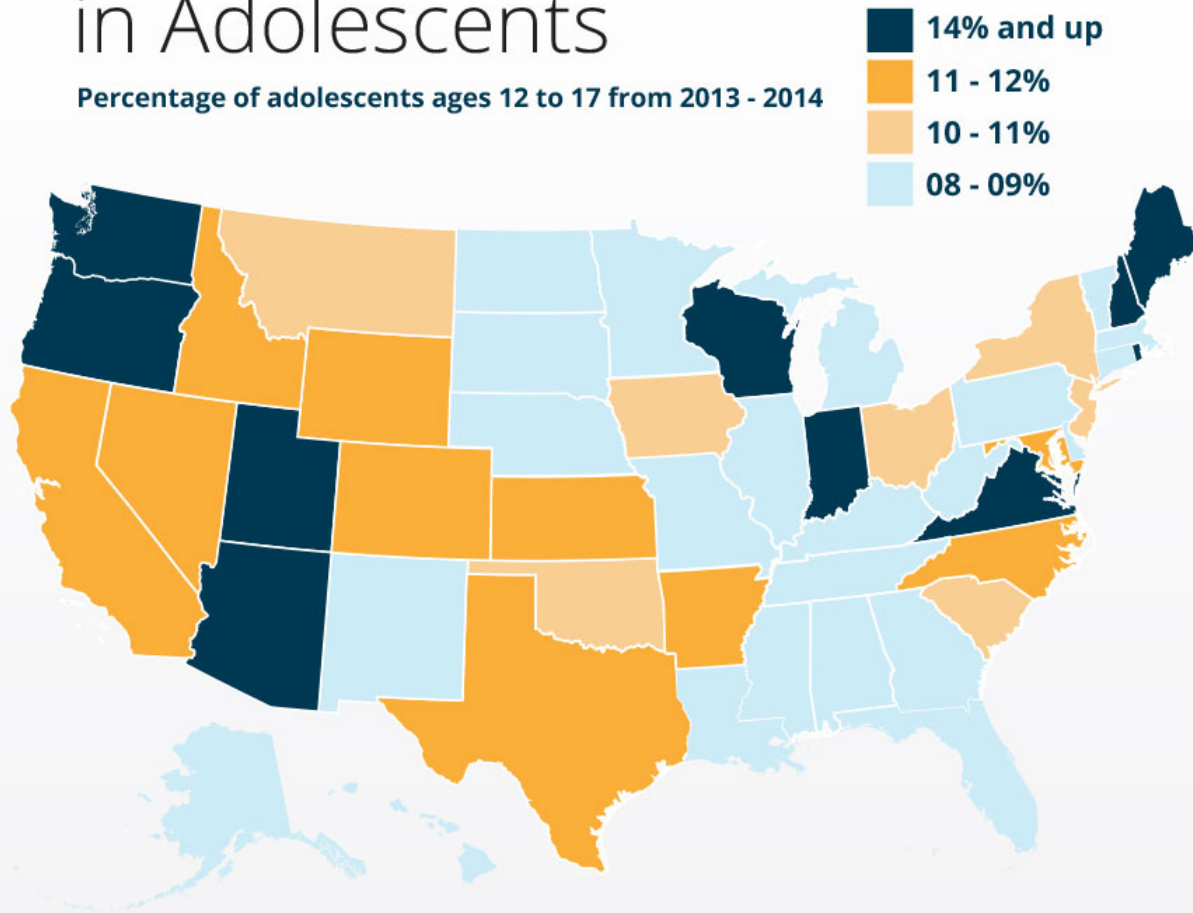
# Adolescent Depression



- Despite the increase in rates of depression, *researchers did not observe any changes in mental health treatment.*
- This “calls for renewed outreach efforts,” the researchers wrote.

# Major Depressive Episodes in Adolescents

Percentage of adolescents ages 12 to 17 from 2013 - 2014



## Sources

SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUH), 2013 and 2014

# Adolescent Depression



- The onset of depression during adolescence is associated with poor academic performance, family and social dysfunction, physically ill health, substance use disorders, unemployment, early parenthood and suicide.

# Adolescent Depression



- Adolescent depression has substantial continuity into adulthood with impaired functioning in work, social, and family life (Weissman et al., 1999) and increased risk for depression and substance dependence in adulthood (McGorry et al, 2007).
  - These difficulties are also often evident in adolescents with subclinical levels of depression (Gotlib et al., 1995).

# Adolescent Depression



- Depression is the most common psychiatric disorder in people who die by suicide (Hawton et al., 2013).

# ADAP Program Mission



- To develop a school-based curriculum to educate high school students, teachers, and parents about teenage depression nationwide



# Long-Range Plan



**Phase I:**  
1999-2001

Develop the program  
Pilot the program in local schools

**Phase II:**  
2001-2006

Finalize the curriculum  
Pilot the training

**Phase III:**  
2006-2009

Finalize the training  
Expand to other states

**Phase IV:**  
2009-Present

Expand nationally with school-based  
educators as the instructors

# ADAP Student Curriculum



- Multiple Teaching Modalities
  - Lecture and discussion
  - Videos (*Day for Night & Psychiatry 101*)
  - Homework
  - Group interactive activities
- Teaching the process of medical thinking, comparing other medical conditions to depression

# Comprehensive Instructor Kit



# Depression: a feeling or an illness?

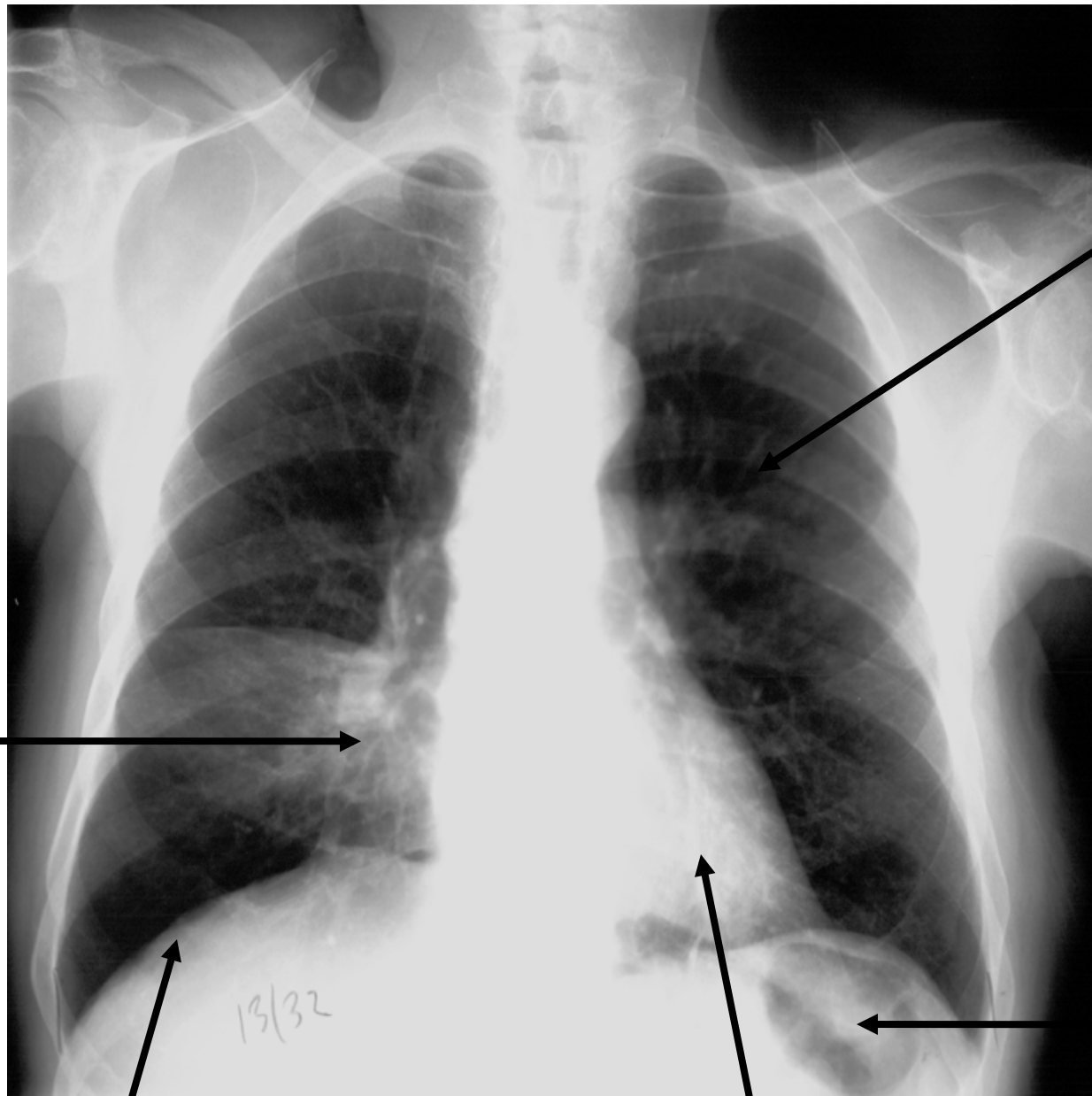


- **depression** – a feeling of sadness
- **Depression** – a medical illness with particular symptoms

# “Cough” as a symptom exercise



Cough = <u>Symptom</u>	
<b>Illnesses</b>  <i>Flu</i> <i>Bronchitis</i> <i>Emphysema</i> <i>Hypochondria</i> <i>Choking</i> <i>Congestive heart failure</i> <i>Meningitis</i> <i>Pneumonia</i> <i>Cancer</i> <i>Allergies</i>	<b>Step 1</b> <u>Ask Questions</u>  <i>How long have you been smoking?</i> <i>Do you smoke?</i> <i>Are you coughing up anything?</i>
	<b>Step 2</b> <u>Exam</u>  <i>Temperature, blood pressure, pulse, heart rate</i> <i>What does the patient look like? (sweating, pale, tired)</i> <i>Listen to lungs with stethoscope</i>
	<b>Step 3</b> <u>Tests</u>  <i>Blood tests</i> <i>Sputum sample</i> <i>Chest x-ray</i>



lungs

Patchy area  
= where you  
hear  
crackling  
sounds

diaphragm

heart

stomach

# Symptoms of Pneumonia



- Cough
- Fever
- Change in appetite or weight
- Fatigue or loss of energy
- Coughing up green phlegm
- Changes in lung sounds when listening with a stethoscope

Test results: Patchy area on chest X-ray

# Symptoms of Depression



- Sad, low, or irritable mood or feeling nothing
- Decreased interest or pleasure in activities
- Change in appetite or weight
- Sleeping more or less than usual
- Feeling restless or slowed down
- Fatigue or loss of energy
- Decreased concentration
- Feelings of guilt or worthlessness
- Recurrent thoughts of death or suicide

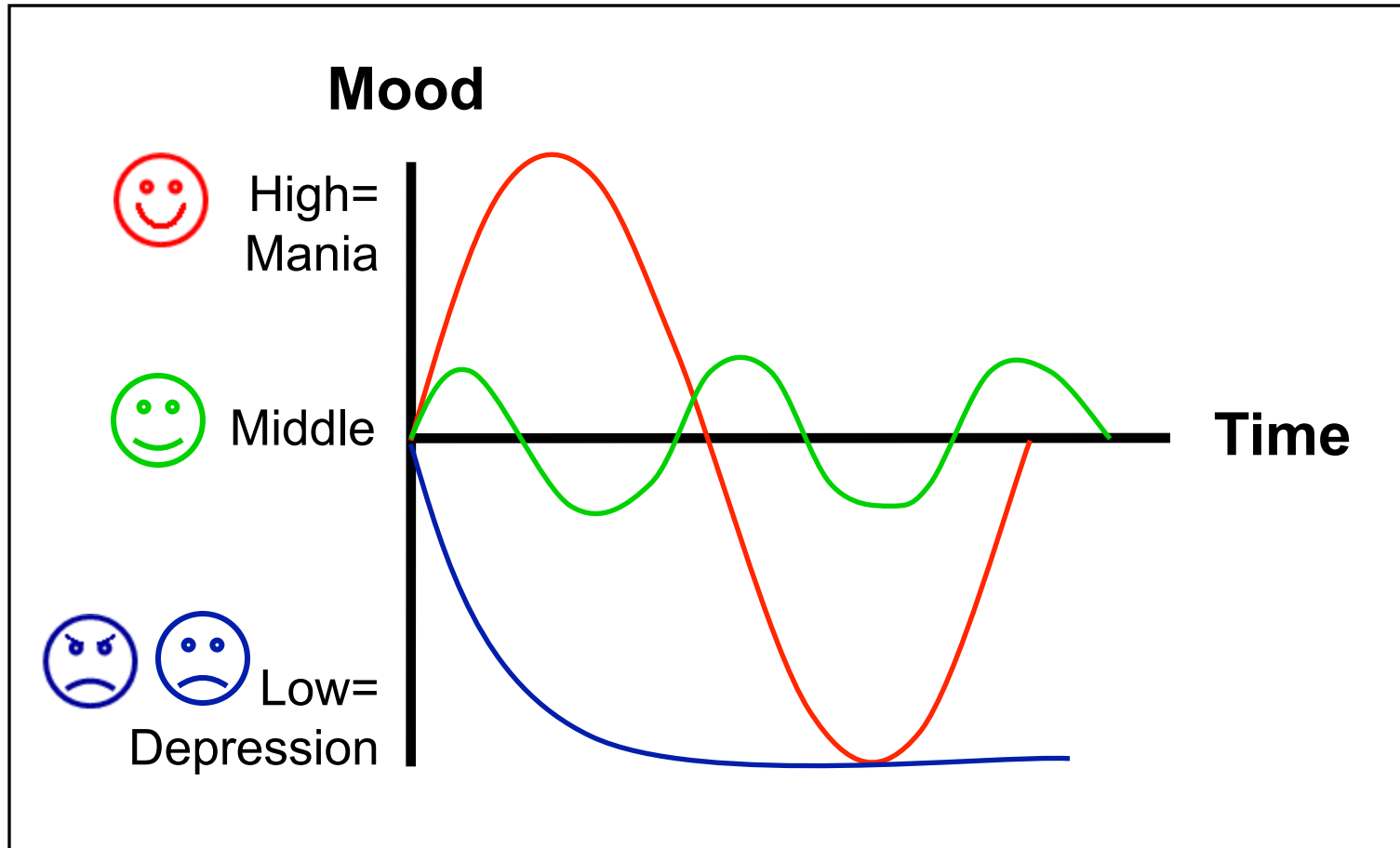


# Making the Diagnosis of Major Depression



- Major Depression = “D”epression
- Five or more symptoms for two or more weeks
- The symptoms cause clinically significant distress or impairment in functioning:
  - Socially, academically, or emotionally

# Mood Graph I: 3 Mood States

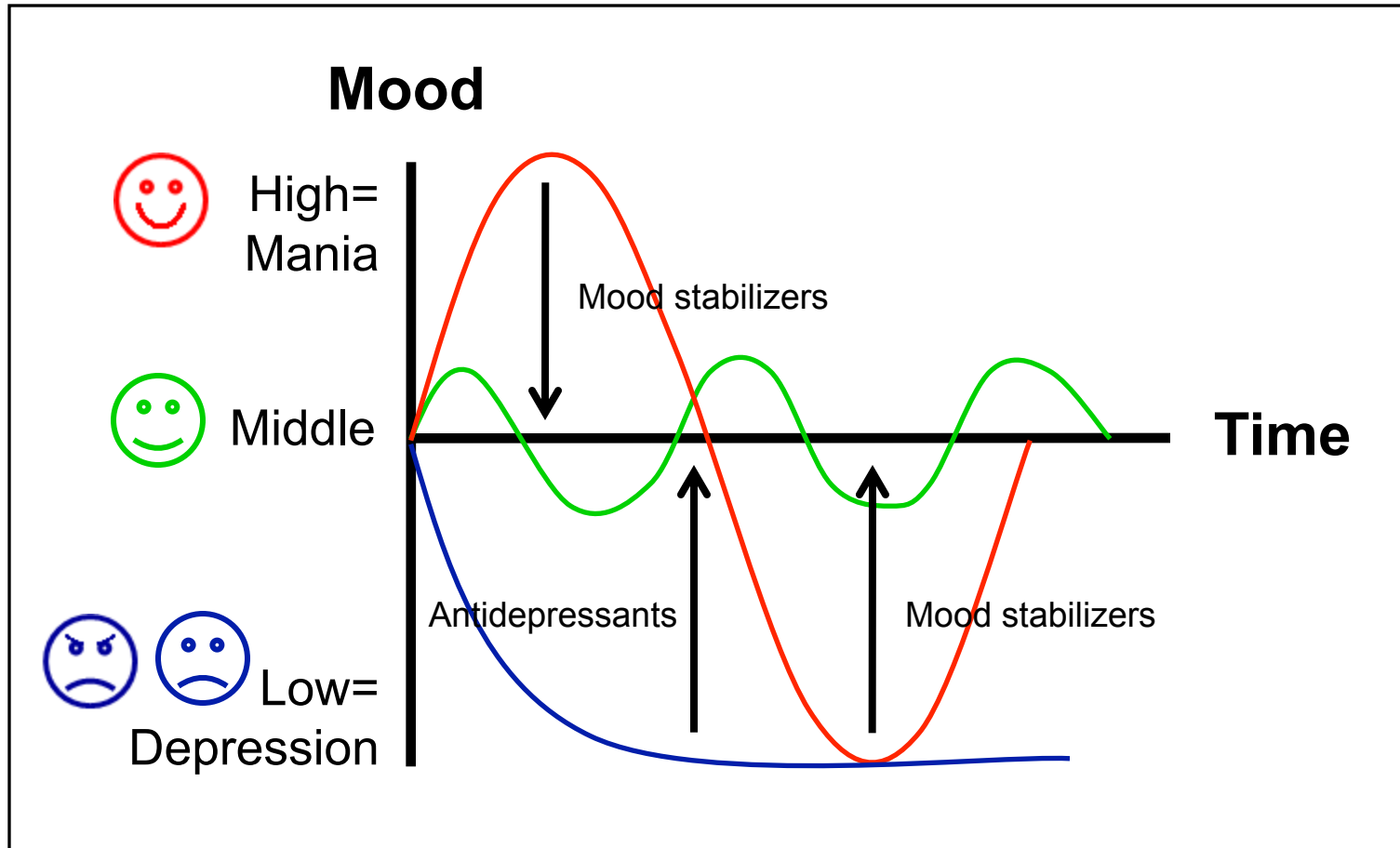


# Treatment of Mood Disorders



- Medications – antidepressants or mood stabilizers
- Individual psychotherapy
- Education (sleep, exercise) and support
- Family therapy

# Mood Graph II: Effects of Treatment



# Depression Literacy



- *Mental Health Literacy (MHL) is defined as “knowledge and beliefs about mental disorders which aid their recognition, management or prevention” (Jorm, et al., 2006).*

# Depression Literacy



- Symptoms of Depression
- Process of medical thinking, comparing Depression to other medical illnesses
- Suicide is a serious outcome of Depression
- Message of hopefulness
- Depression is a treatable medical illness

# ADAP Depression Knowledge Questionnaire (ADKQ)



- 17-item questionnaire
  - 13 individual “yes-no” questions
  - 4 clinical vignettes, individual “*is having a rough time*”, “*has the medical illness of Depression*”, or “*has the medical illness of Bipolar Disorder.*”

# ADKQ: Knowledge examples



- Depression can be controlled through will power (Y or N)
- A person with depression always feels sad (Y or N)
- Depression runs in some families (Y or N)
- Someone who has major stress always develops depression (Y or N)



# Reported and Intended Behaviour Scale (RIBS)



In the future, I would be willing to

- live with someone with a mental health problem
- work with someone with a mental health problem
- live nearby to someone with a mental health problem
- continue a relationship with a friend who developed a mental health problem

Likert scale Agree strongly, Agree slightly, Neither agree nor disagree, Disagree slightly, Disagree strongly, DK

# Student REDCap Survey



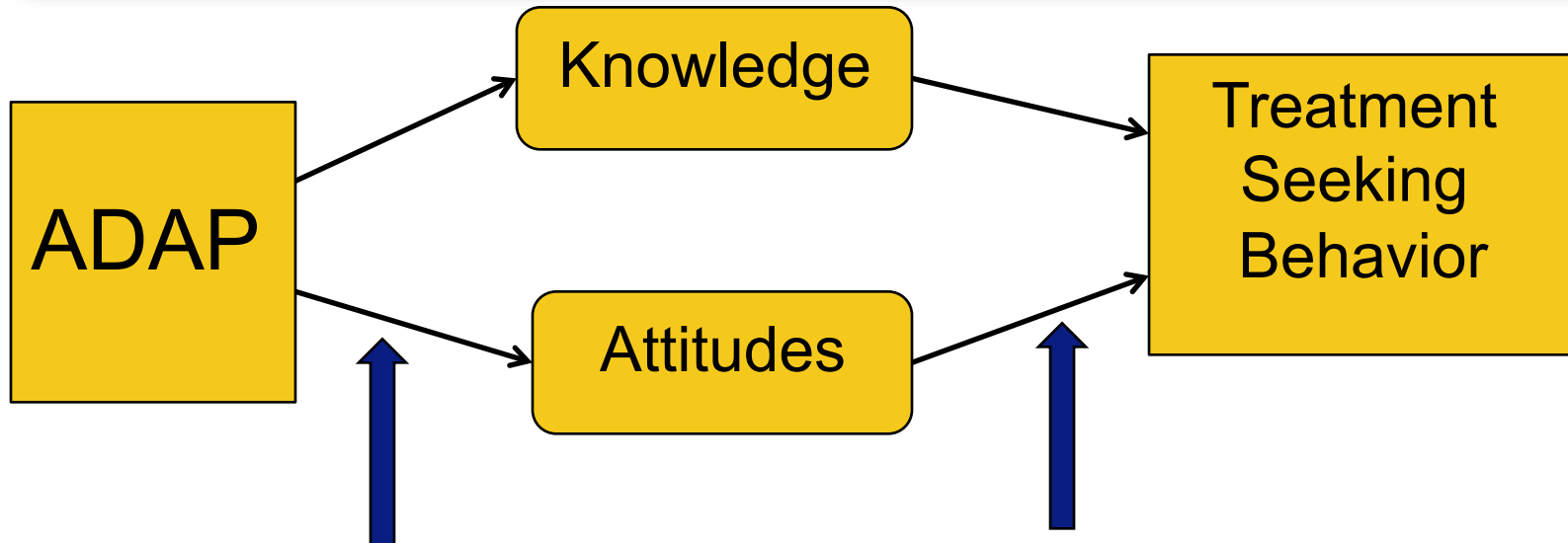
- Parental consent & student assent with permission to re-contact
- Students complete online survey
  - Help seeking and utilization of mental health services approximately 4 months after ADAP via adapted Child and Adolescent Services Assessment (CASA)

# School personnel as ADAP instructors



- School personnel as the ADAP instructors
  - Health teachers, guidance counselors, psychologists
- One-day, in-person training (6 CEUs provided)
- Practical, sustainable and cost-effective
- Human Subjects exempt, research conducted in established or commonly accepted educational settings

# Evaluation of ADAP Student Intervention Effectiveness



*Hypothesis 1: ADAP increases Depression literacy*

*Hypothesis 1.1: Depression literacy is sustained 4 months post intervention*

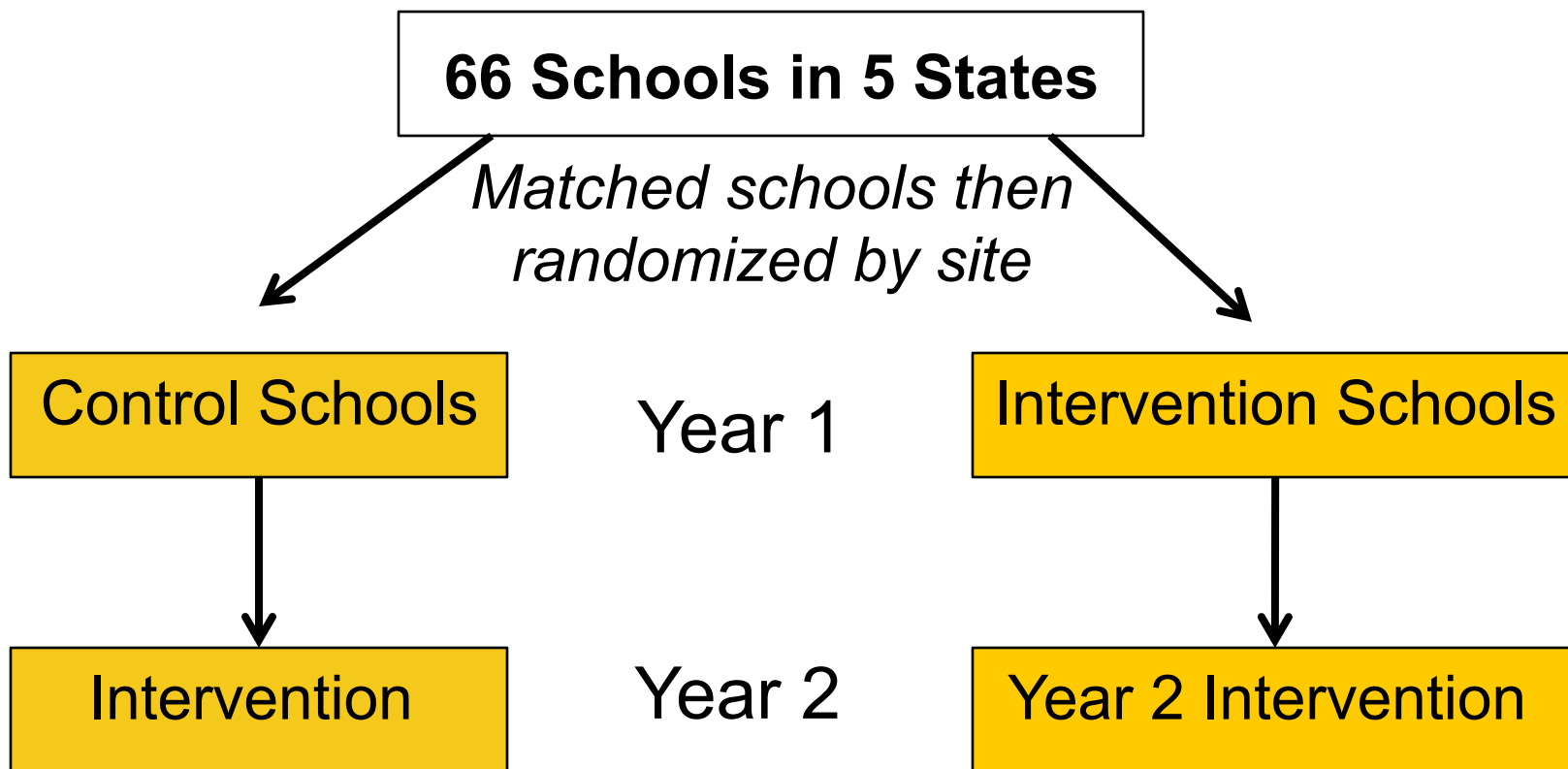
*Hypothesis 2: Treatment seeking is higher after the ADAP intervention*

# Effectiveness Trial of the ADAP Intervention



- 66 schools matched & randomized by region
- Implementation Regions
  - Baltimore Archdiocese High Schools (17)
  - New Castle County, Delaware (14)
  - Washtenaw County, Michigan (7)
  - York County, Pennsylvania (16)
  - Adair County, Oklahoma (5)
- Number of students= 6,679 (~15,000 total)

# Effectiveness Trial of the ADAP Intervention



# Effectiveness Trial of the ADAP Intervention



- Universal implementation of the curriculum
- Parallel collection of data in all schools
- Tracking use of in-school mental health services where available
- Subgroup of students (with parental consent) with individual data collection of past service use and treatment seeking behavior

# Teacher REDCap Survey



- Post-test ADKQ & RIBS
- Demographics (age, sex, race)
- Title, years teaching, degrees
- MH training
- MH treatment, satisfaction with tx
- **Experiences in teaching ADAP**
  - 65/87=75% completed



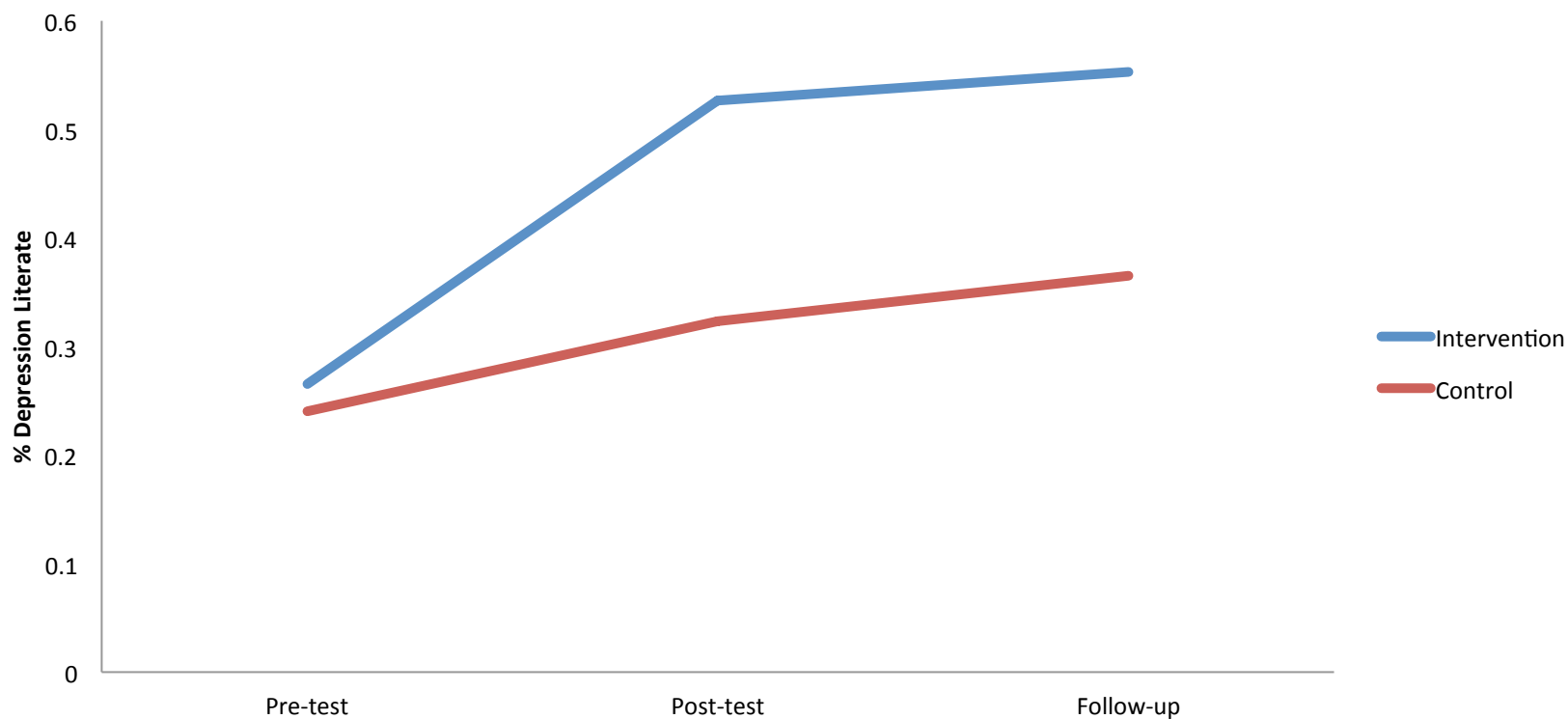


# Results

# Overall Sample Depression Literacy



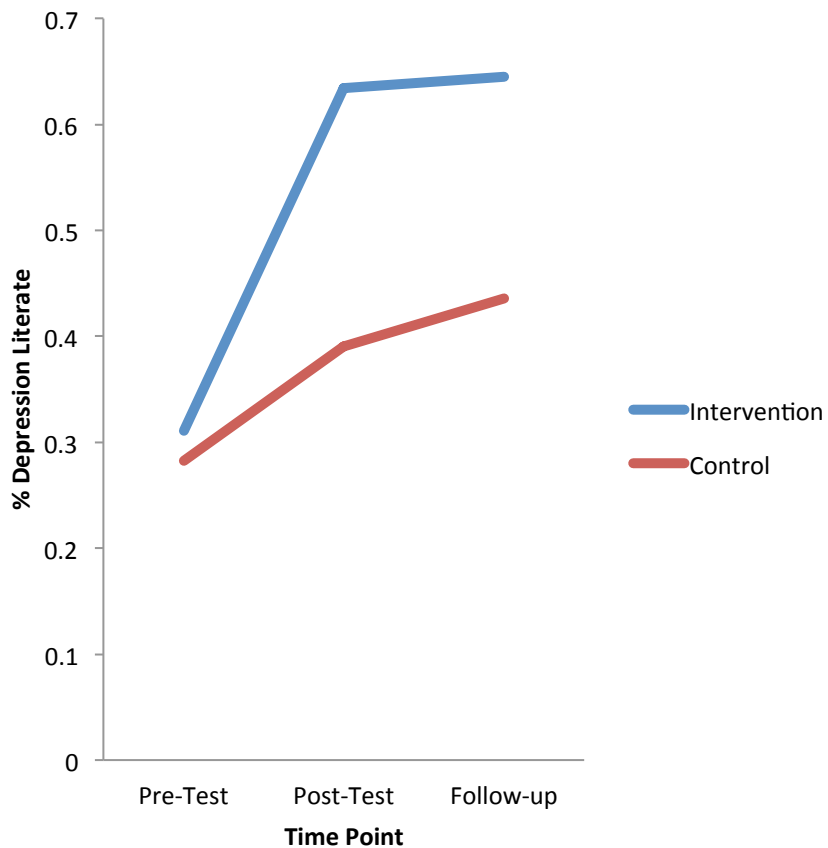
**% Depression Literate**



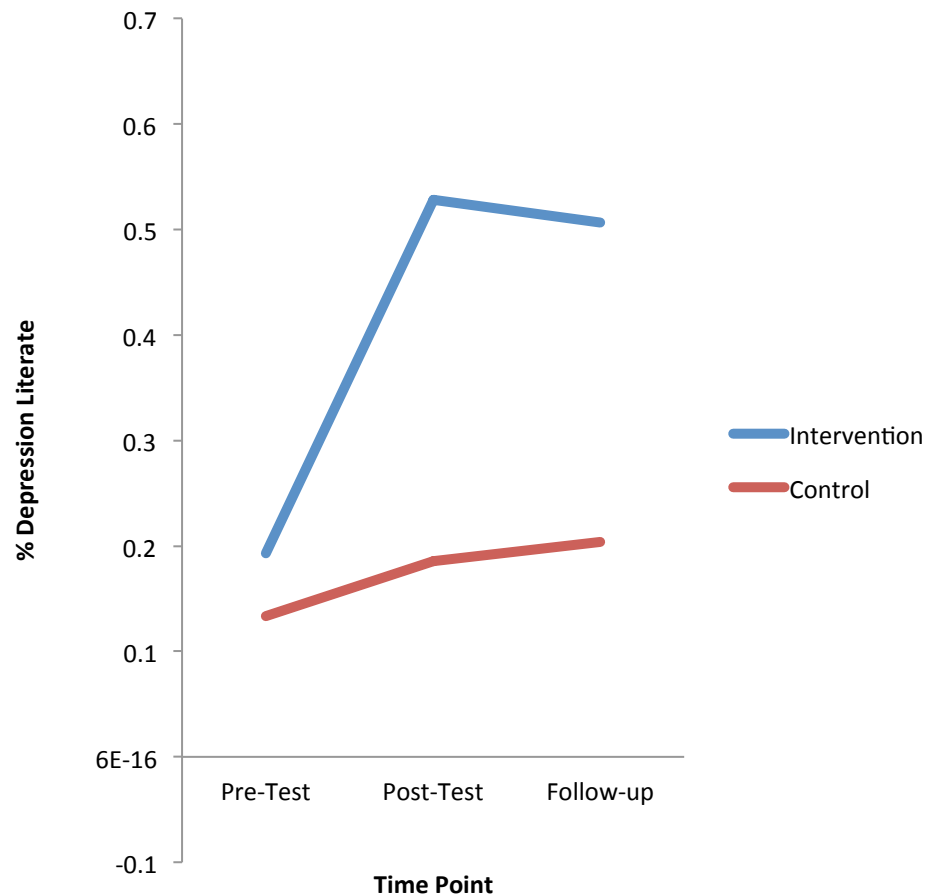
# Sex Differences in Depression Literacy



### ADKQ Results for Females



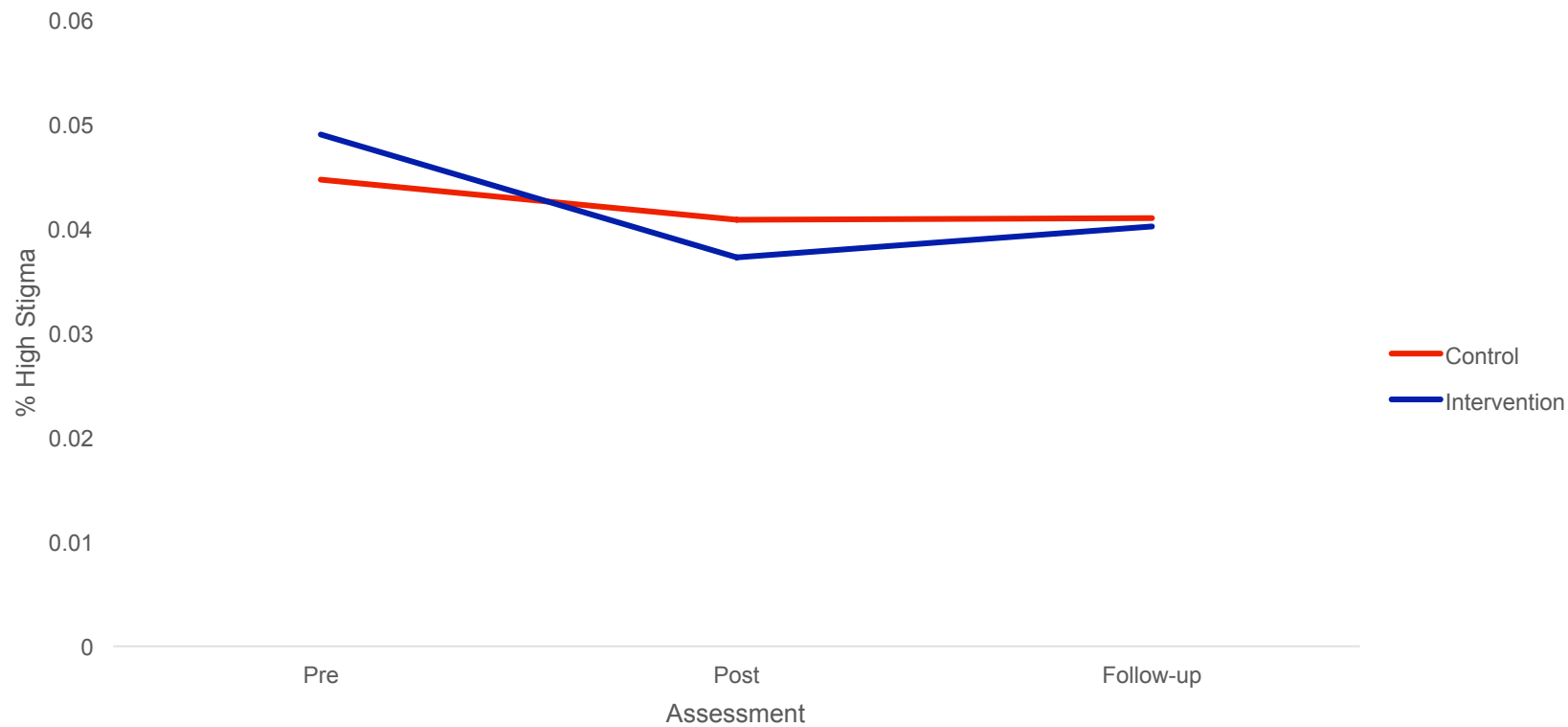
### ADKQ Results for Males



# RIBS results



RIBS High Stigma



# Teacher REDCap survey



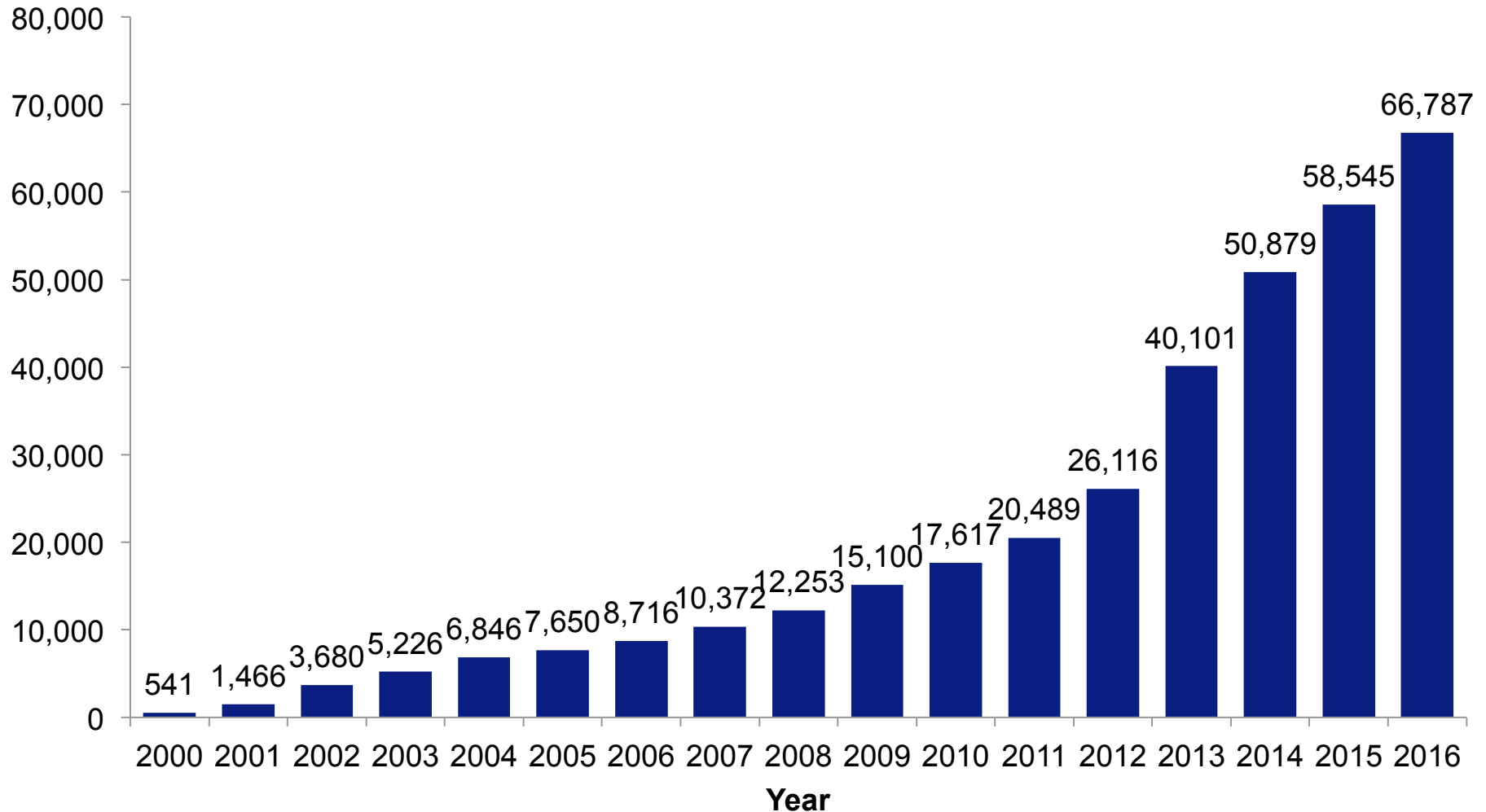
- **Did students self-identify after ADAP (or approach you on behalf of a friend)? If so, please tell us about this.**
  - **30/65=46%**
- **Many teachers reported several**
  - “a student told me I saved her life because she said she knew something was wrong but didn't know what it was”
  - Talked to parent; parent called me to ask for appropriate interventions

# Student REDCap Survey

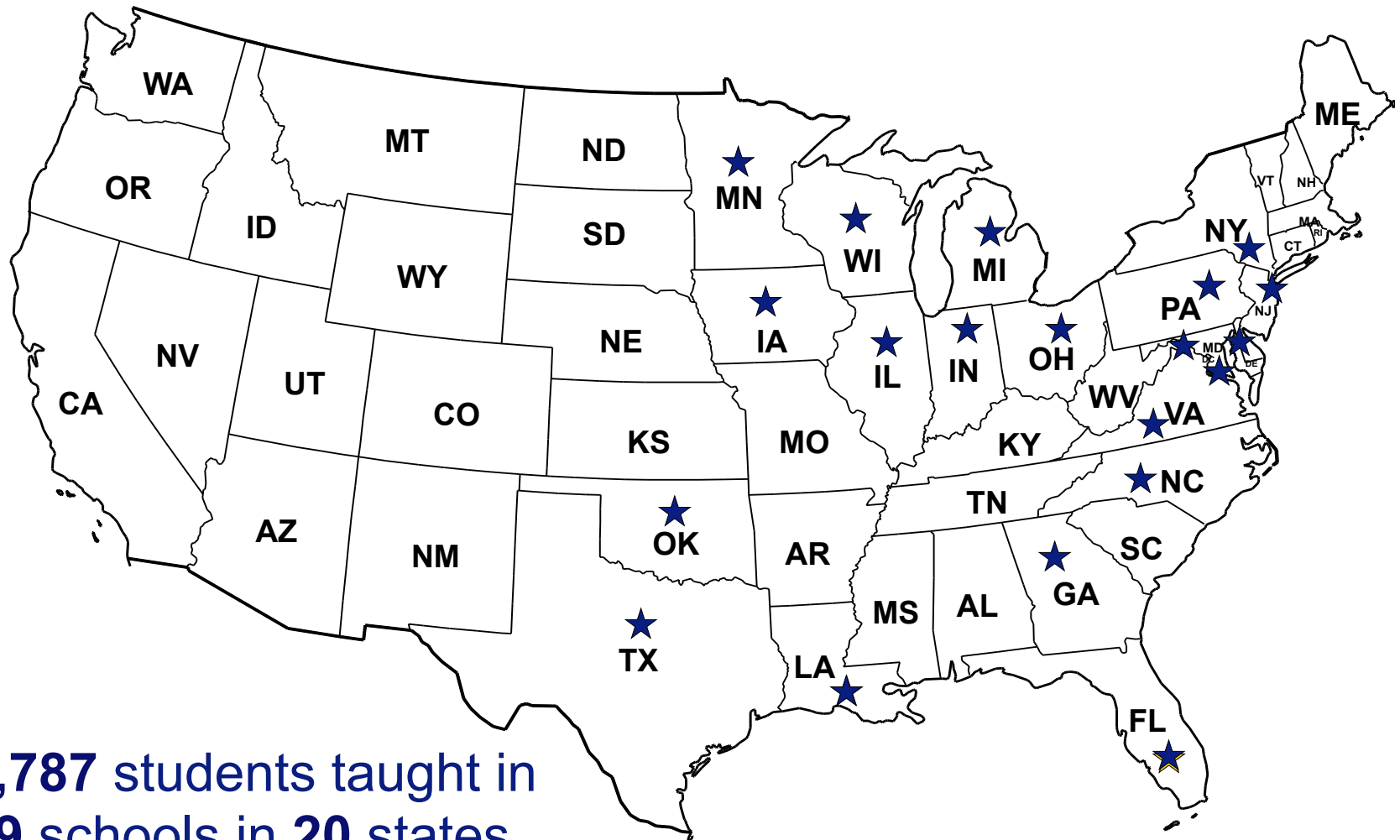


- **38 (19%) of students said they needed help for depression, of these, 44% obtained services for depression after the ADAP program.**
- 37% said that, they needed help for anxiety, worrying or feeling nervous.
- 4% said in the past four months, they needed help with problems related to alcohol.

# Cumulative number of students taught ADAP



# National Expansion



**66,787** students taught in  
**219** schools in **20** states



# ADAP to Date



- In our 17<sup>th</sup> year
- Trained over 1,200 instructors
- Taught over 66,000 students
- Multi-year collaborations in Delaware, Florida, Illinois, Indiana, Maryland, Ohio, Oklahoma, Pennsylvania, Texas, and Washington, DC

# Next steps



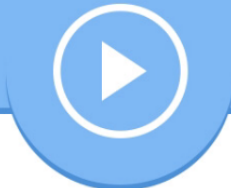
- NREPP
- Linkage to publically available data systems
- Middle school program

# Depression Education App



- Developed at Johns Hopkins
- Dr. Anne Ruble & Dr. Vinay Parekh
- Targeted for teenagers and parents
- Interactive text and videos
  
- **mADAP** in the Apple App store

# m-ADAP



# ADAP



MAJOR DEPRESSION  
Symptoms & Diagnosis



TREATMENT MATTERS  
Recovery & Hope



WHAT TO DO NEXT  
Getting an Evaluation

< ADAP Major Depression



WHO GETS  
Major  
Depression?



SYMPTOMS OF  
Major  
Depression?



Major Depression  
IS A SYNDROME



Major Depression  
VS. NORMAL  
SADNESS



## Facts

### DEPRESSION:

#### a feeling or an illness?

If asked, most people would say they have felt "depressed." What most mean by this is that they have felt sad. Sadness is a universal feeling. Not everyone, however, will experience a clinical depression.

**Clinical depression is a medical illness with particular symptoms: changes in mood (either sad, angry, or feeling nothing), physical changes (sleep, energy, appetite), and a decrease in self-confidence.** Having this group of symptoms stay for **a period of several weeks** is clinical Depression.

#### How do doctors know that Depression is a medical illness?

**Doctors know that Depression is a medical illness because it has a**



Home



The Facts



Resources

# < Symptoms Decreased Interest



Home



The Facts



Resources



# ADAP Team



## ■ Program Expansion

- Katie Heley
- Haley Eldridge

## ■ Program Development

- Dr. Karen Swartz
- Barbara Schweizer
- Sallie Mink
- Mary Beth Beaudry
- Dr. Elizabeth Kastelic
- Dr. Anne Ruble
- Dr. Vinay Parekh
- Dr. J. Raymond DePaulo, Jr.

## ■ Program Evaluation

- Dr. Holly Wilcox

## ■ Collaborating Schools

- High Schools: public, private and parochial

## ■ Advisors

- Student focus groups and feedback forms
- Adults and adolescents living with mood disorders
- Family members affected by mood disorders and suicide
- Film team
- Family & friends