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## Disclosures

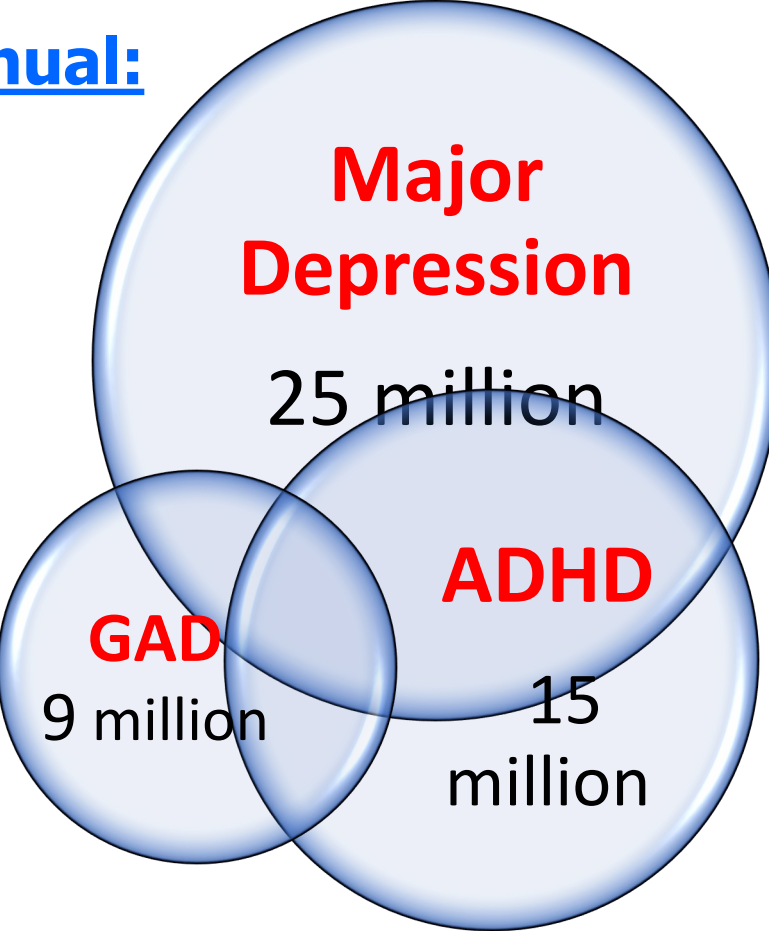
Advisory Board (Equity Compensation), iFocus Health (Reading Tracking)

Advisory Board (Equity Compensation), NEUROSYNC (Eye Tracking)

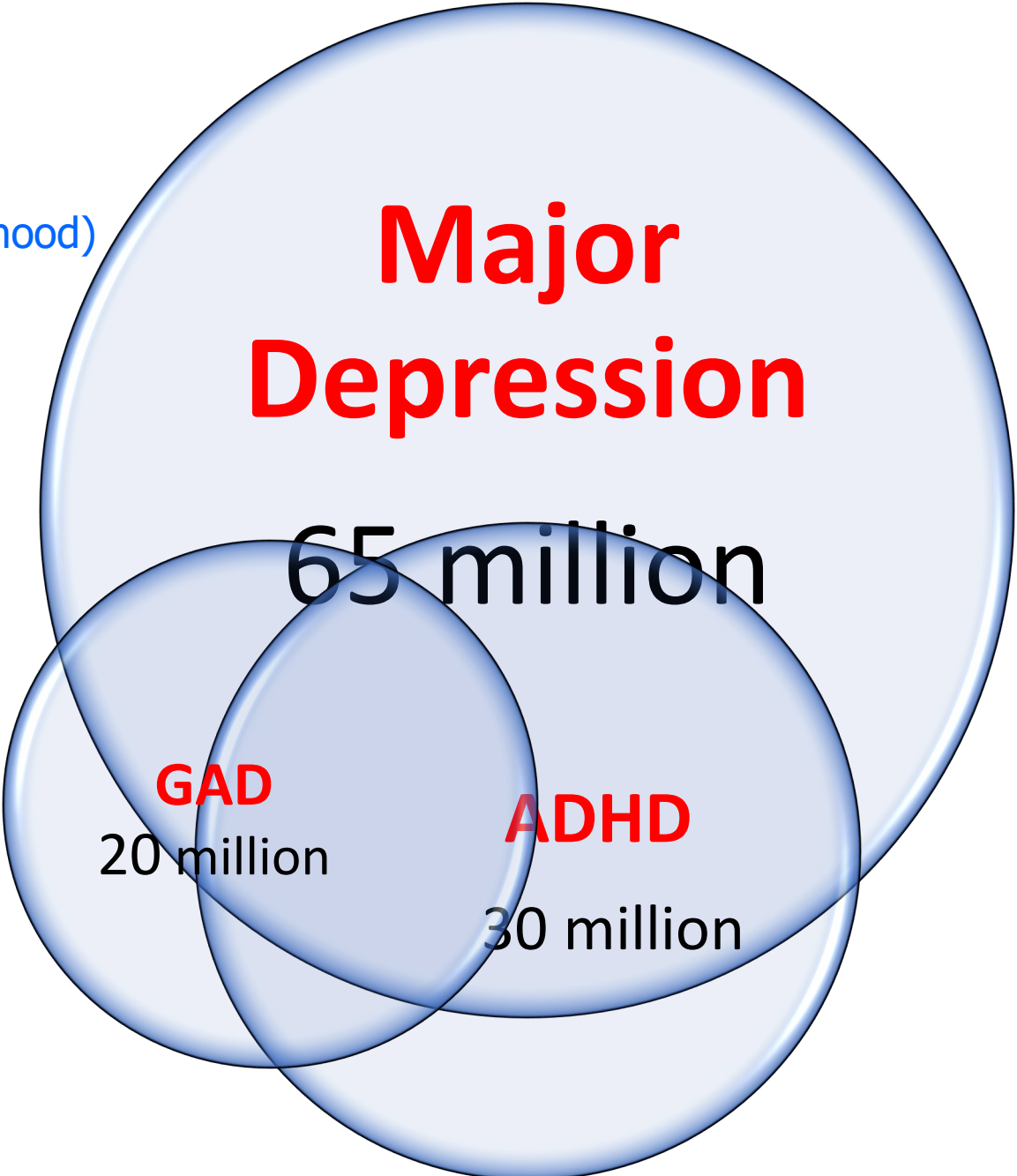
Expert Consortium (Non-paid), QB Tech

Approximate Prevalence & Co-morbidity of 3 most common psychiatric diagnoses in US adults  
*Recent epidemiological data:*

Annual:



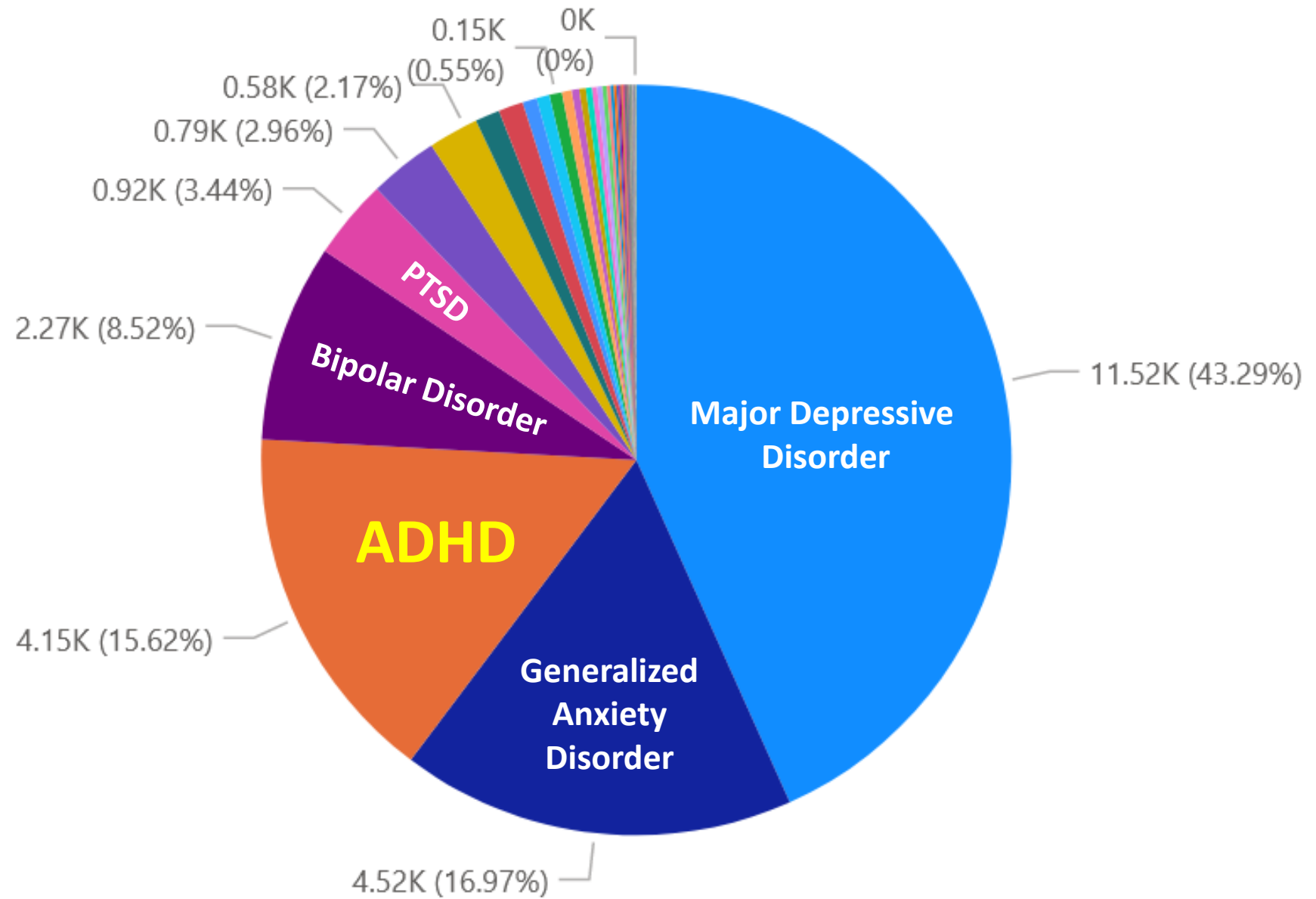
Lifetime:  
(including childhood)



The prevalence of ADHD among Adult Psychiatric Outpatients is even higher than in the general population (and has been steadily climbing)  
recently published rates vary between ~20-40%

This accords closely with our experience at  
**Mindful Health Solutions**

Distribution of patients  
in our practice by  
primary diagnosis  
(n ~ 26,500; 98.7% Adult)



# **The HII-5**

**A Simple and Rapid Symptom Tracking  
& Treatment Response Measure for ADHD**

At **Mindful Health Solutions** our clinical culture is built around “Measurement-Based Care”

We use simple quantitative patient self-survey measures to track treatment progress at every visit:

**PHQ-9** for **Depression**

**GAD-7** for **Anxiety**

and for **ADHD**.....

# Here is a list of all ADHD Self-Survey Measures validated for the purpose of symptom tracking:

## 1. AAQoL – assesses functioning over the past 2 weeks

29 questions

5 possible answers per question

Good luck getting patients to fill it out at each visit! (too complex)

Brod M, Qual Life Res. 2006 Feb;15(1):117-29.

## 2. There is no “2”

Some clinicians (and pharma companies) use the [ASRS](#)

The first 6 questions can be used in isolation

The ASRS asks about the [last 6 months](#) of symptoms.

It was designed and validated as a [diagnostic screening tool](#).

It was [not designed nor validated to track ADHD over shorter periods of time](#).

## HII-5

### HYPERACTIVITY, IMPULSIVITY, INATTENTION SYMPTOM RATING SCALE

Over the last week how often have you been bothered by the following challenges?

|  | Not at all | Several Days | More than half the days | Nearly every day |
|--|------------|--------------|-------------------------|------------------|
| Fidgeting or difficulty sitting still                      | 0          | 1            | 2                       | 3                |
| Interrupting other people or acting impulsively            | 0          | 1            | 2                       | 3                |
| Procrastinating on starting tasks                          | 0          | 1            | 2                       | 3                |
| Starting but not finishing tasks                           | 0          | 1            | 2                       | 3                |
| Mind wandering or forgetting what you were doing or saying | 0          | 1            | 2                       | 3                |

\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

= Total Score: \_\_\_\_\_

#### Recommended Scoring Matrix

0-2 none/minimal

3-5 mild

6-8 moderate

9-11 moderately severe

12-15 severe

# Hyperactivity, Impulsivity, Inattention Symptom Rating Scale HII-5

## Additional Questions (not scored)

**If you checked off any challenges, how difficult have they made it for you to do your work, take care of things at home, or get along with other people?**

**Not difficult  
at all**  
(managing well)

**Somewhat  
difficult**

**Very  
difficult**

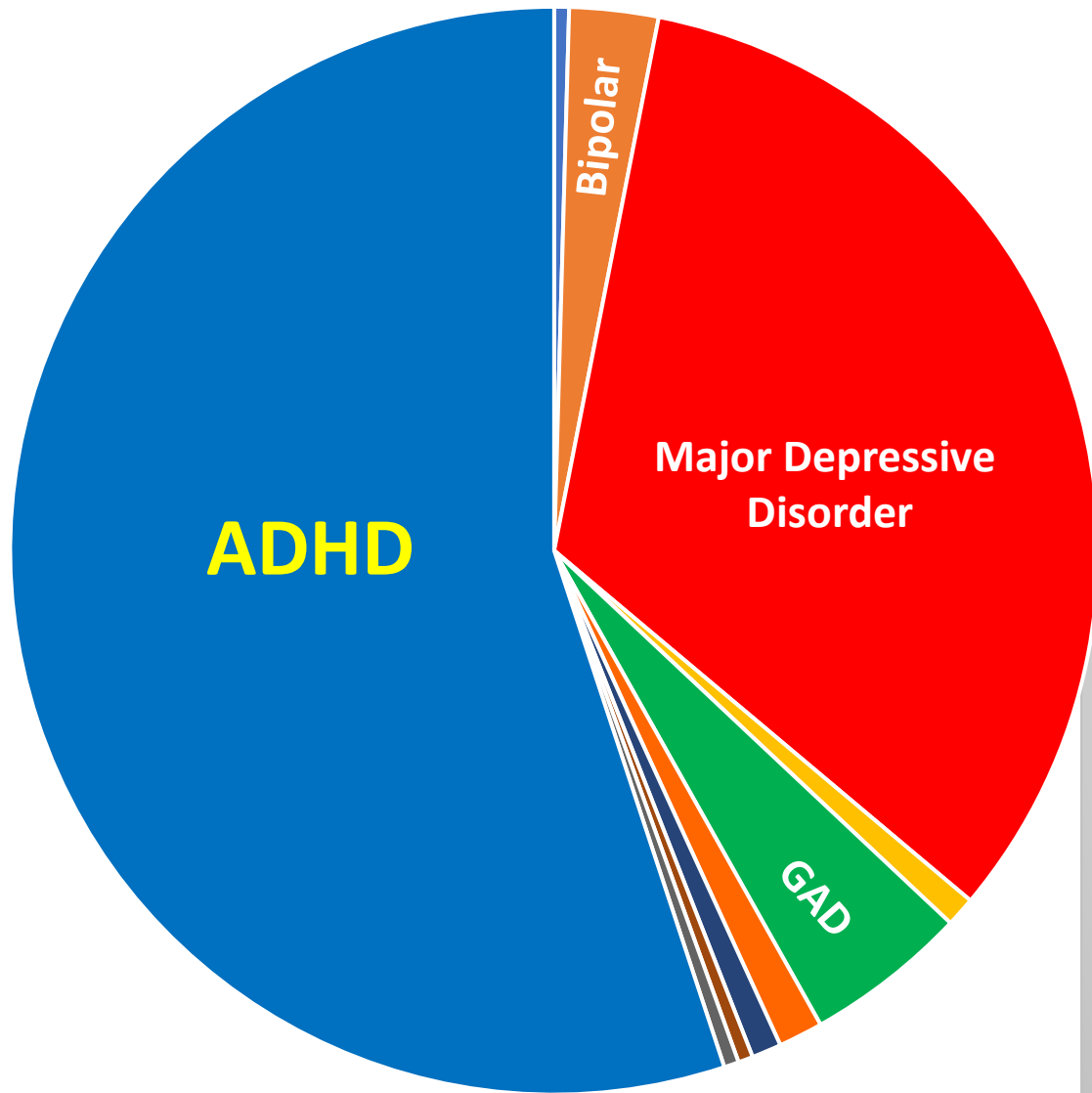
**Extremely  
difficult**  
(debilitating)

**Over the last week, I have taken ADHD medications (choose one):**

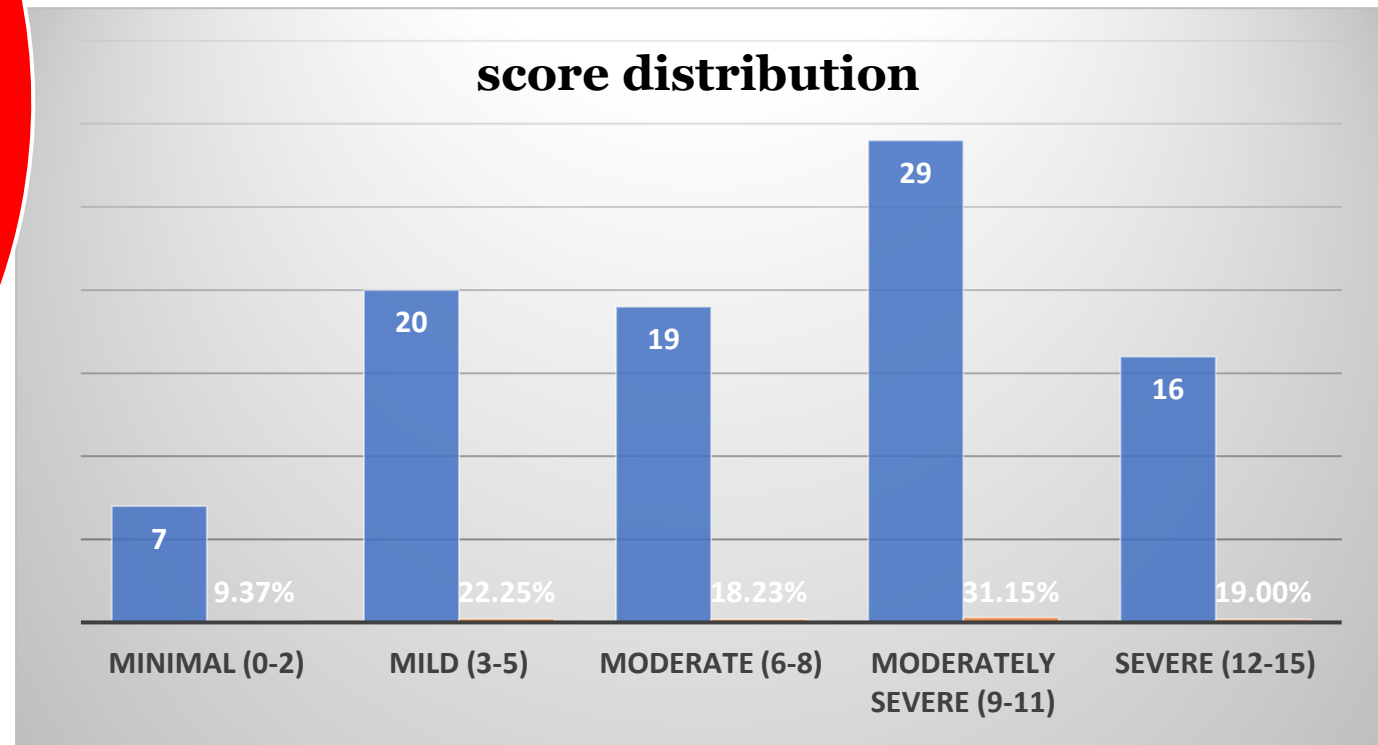
- **Every day**
- **On each day I needed them** (but not 7 days/week)
- **Intermittently** (I forgot on some days when I should have taken them)
- **Not at all**



# The HII-5 initiative – basic numbers (as of 10/10/23)



- **227** unique patients
- **91** with at least 1 repeat HII-5
- Age range: 20-74 (average = 40)
- 57% female; 43% male
- provider participation: 11



# The HII-5 initiative – patient vignette

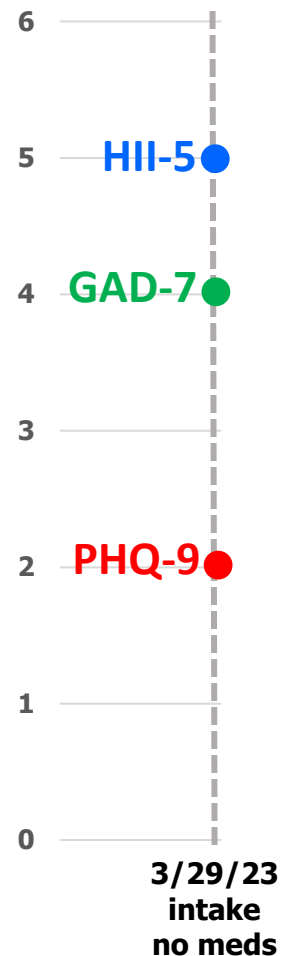
38 y o M, married engineering manager. Supervisor has told him: “You need to work on active listening skills.”

5 y o son “bounces off the walls all day” & patient’s mother says: “You were exactly the same way.”

Paternal Grandfather - alcoholic; Father - alcoholic + attentional issues. Pt has no other psychiatric concerns.

## ADHD Test Battery Results Summary

WURS: 54 (+) CAARS: ADHD Index: 63 (91%) Inattention Subscales: 77/78 (>99%) CAARS-O (-) QB Inattention: 2.4 (>>99%); Activity 2.9 (>>99%)

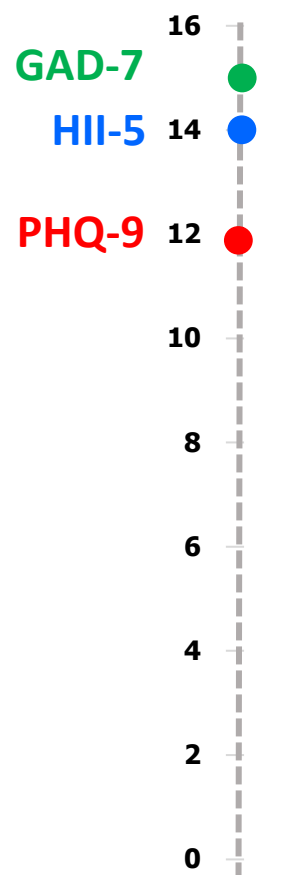


# The HII-5 initiative – patient vignette

24 y o F, new elementary school teacher, childhood attentional & hyperactivity challenges but never diagnosed.  
Recently diagnosed elsewhere with ADHD and prescribed atomoxetine: “Working well, no side effects”

## ADHD Test Battery Results Summary

WURS: **invalid** CAARS ADHD Index: 74 (99%) CAARS-O: 80 (>99%) QB Inattention: 2.4 (>>99%); Activity 2.9 (>>99%)



8/18/23

intake

atomoxetine 80 mg/day

# The HII-5 initiative – patient vignette

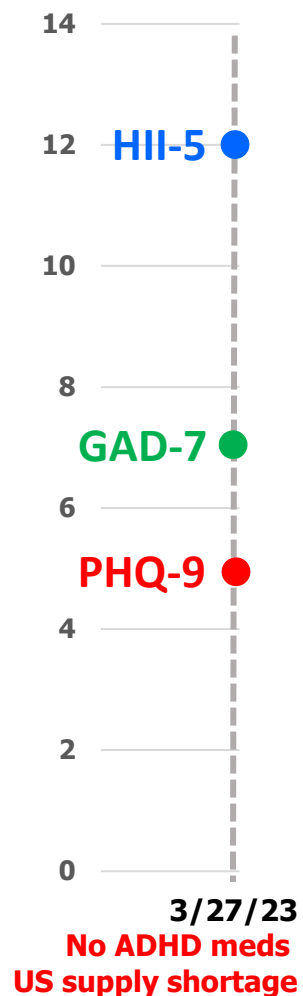
29 y o F in Tech finance. Depression, anxiety, mood lability since middle school. First treatment age 18 for “road rage”  
Prior to seeing me prescribed only SSRIs, SNRIs, Bupropion (pooped out)

## ADHD Test Battery Results Summary

WURS: 39 (-) CAARS ADHD Index: 72 (99<sup>th</sup> %ile) CAARS-O: 51 (-) QB Inattention: 1.0 (83 %ile) Activity: 1.8 (96 %ile)

### Stable Medications

SNRI (venlafaxine 112.5 mg/day)  
augmentation (aripiprazole 1 mg/day)  
Stimulant for ADHD varies as shown below



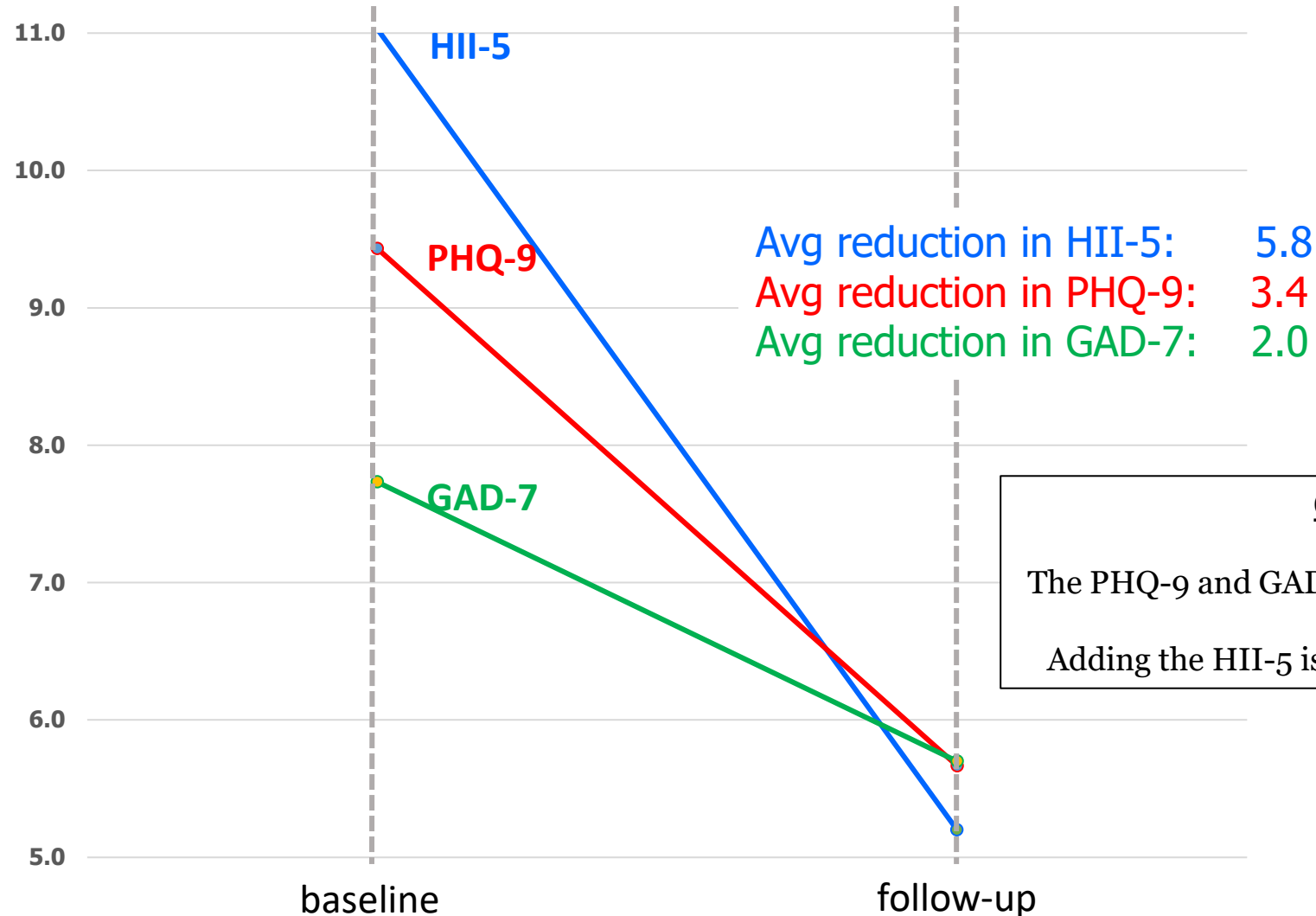
3/27/23

No ADHD meds  
US supply shortage

# The HII-5 initiative – combined use with PHQ-9 & GAD-7

## Reduction in PHQ-9 and GAD-7 in patients successfully treated for ADHD

*(HII-5 reduction of 3 or more at follow-up; n = 30)*



### Other preliminary conclusions

The PHQ-9 and GAD-7 correlate with each other more than with the HII-5

Adding the HII-5 is “screening & tracking patients in **3D** instead of **2D**”

# HII-5 – correlation with WURS, CAARS, QB Test/CPT-3



## Work in Progress

HII-5 in pharmacologically-untreated patients who also completed the MHS ADHD Test Battery

### (Very) Provisional Conclusions

- Severity on HII-5 correlates with previously-validated Self-Survey Report Scales
  - WURS
  - CAARS ADHD Index
- Correlation with various measures on Continuous Performance Tests (QB, CPT3) less clear so far

*...we're working on this.*