

## Background

Adderall is a prescription stimulant that is commonly used to treat narcolepsy and ADHD because it helps to focus attention and control behaviors. Recently, college students nationwide have been using Adderall recreationally for a burst in energy, and an increase in productivity, during busy times of the semester. Our group compared adverse effects reported on Twitter with those reported on the FDA Adverse Event Reporting System (FAERS).

## Twitter Analysis

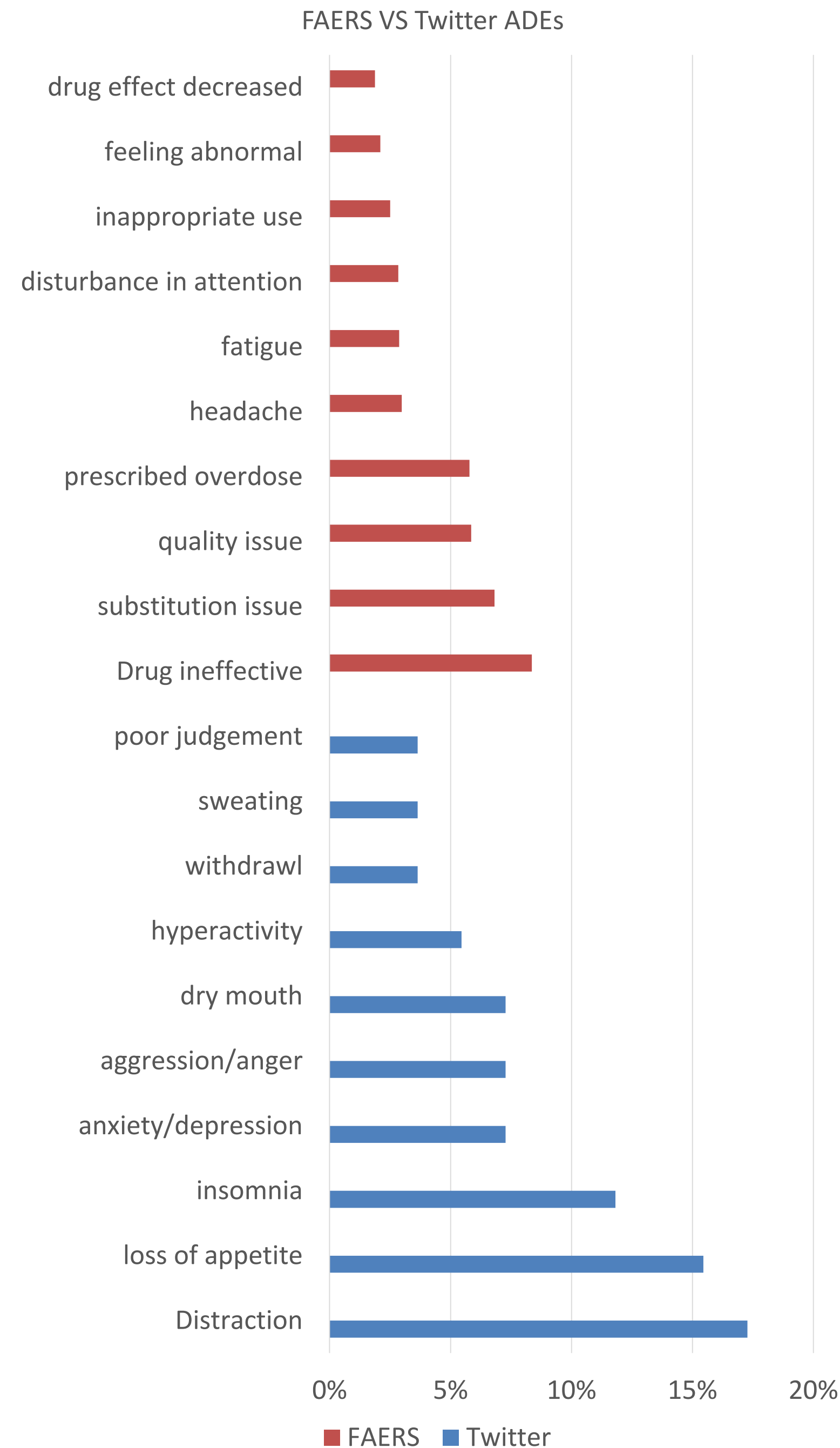
- 300 tweets collect from 06/13/13 to 02/23/17
- 110/300 tweets contained at least one ADE (36%)
- 38 ADEs
  - 14 tweets contained 2 ADEs
  - 128 events reported

## Top 10 Twitter ADEs (n = 110)

| Event               | Number of Events |
|---------------------|------------------|
| Distraction         | 19               |
| Loss of Appetite    | 17               |
| Insomnia            | 13               |
| Anxiety/ Depression | 8                |
| Aggression/ Anger   | 8                |
| Dry Mouth           | 8                |
| Hyperactivity       | 6                |
| Withdrawal          | 4                |
| Sweating            | 4                |
| Poor Judgement      | 4                |

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## Reporting Comparison Table\*



\*Even though Twitter and FAERS wording is similar, the ADEs are not the same

## Conclusions

When comparing ADE's from Twitter and FAERS, there were several overlapping effects. Anxiety and depression were reported on both sites. However, the four most common ADE's on FAERS were not reported on Twitter at all. The most common ADE's for both Twitter (Distraction) and FAERS (Drug Ineffective) are similar because they refer to the drug being ineffective and not reacting as expected. On Twitter, some users may not have been using Adderall for its intended treatment of ADHD, which could explain its ineffectiveness.

## FAERS Analysis

- Total entries 1,756
- 2,715 ADE's reported to FAERS

## Top 10 FAERS ADEs (n = 2,715)

| Event                    | Number of Events |
|--------------------------|------------------|
| Drug Ineffective         | 227              |
| Substitution issue       | 185              |
| Quality issue            | 159              |
| Prescribed Overdose      | 157              |
| Headache                 | 81               |
| Fatigue                  | 78               |
| Disturbance in attention | 77               |
| Inappropriate Use        | 68               |
| Feeling Abnormal         | 57               |
| Drug effect Decreased    | 51               |