**Title: Impact of a nation-wide priority panel report on naloxone distribution at the United States Veterans Health Administration**

**Background**

In 2017, the United States (US) Veterans Health administration (VHA) Pharmacy Benefits Management (PBM) Academic Detailing Services (ADS) implemented a nation-wide priority panel report that identified VHA providers with a large number of veterans who were eligible to receive naloxone for harm reduction treatment for opioid overdose. This was in response to the Comprehensive Addiction Recovery Act (CARA) that was signed into law to address the opioid crisis in the US. Academic detailing at VHA is an educational outreach designed to influence the prescribing behavior of providers through peer-to-peer engagement with unbiased synthesis of the evidence-base. Implementation of a priority panel report of providers was designed to increase efficiency of academic detailers to improve naloxone prescribing rates. Since its implementation, VHA PBM ADS has sought to understand its impact on naloxone prescribing among veterans.

**Specific Aims**

For Specific Aim 1, we will measure the number of providers that received academic detailing per month.

For Specific Aim 2, we will measure the monthly naloxone prescribing rate.

**Methods**

*Design*

An interrupted time series analysis (ITSA) was conducted to compare the differences in naloxone prescribing rate (number per 1000 veterans) before and after being included into the priority panel report at the United States (US) Veterans Health Administration (VHA). The date (month) providers were in the priority panel was defined as the index period. There were 12 months before the priority panel period, 12 months after the priority panel period, and one month when the provider was entered into the priority panel for a total of 25 months. A month was defined as a 30-day time interval.

For the primary aim, the cumulative number of providers who received academic detailing and the average number of academic detailing visits per provider after being on the priority panel report was estimated.

For the secondary aim, an ITSA using a linear mixed effects model with a random intercept at the provider-level and a random slope at the group-level was constructed to compare the changes in naloxone prescribe rate before and after inclusion into the priority panel report. We constructed both a crude and adjust model; the adjusted model controlled for age at the time of entry into the priority panel report, facility location, number of years worked at VHA, primary care or specialty, and provider type.

*Sample*

A closed cohort of providers who were active 12 months before and after being on the priority panel report were included for analysis. Providers who received naloxone-related academic detailing prior to being on the priority panel report were excluded from analysis.

Providers were included for analysis if they were entered into the priority panel report between 01 October 2017 and 01 July 2021. Additionally, they had to have been active in their role as a provider 12 months before being entered into the priority panel report. Providers were excluded if they had a history of a naloxone-related academic detailing visit.

*Endpoints*

Naloxone prescribing rate was calculated as the number of naloxone prescription ordered divided by the total number of veterans eligible to receive naloxone within a 30-day time interval.

*Provider characteristics*

Provider characteristic included their age at the time of entry into the priority panel report, facility location, number of years worked at VA, primary care or specialty, and provider type. Provider type included physicians, pharmacists, nurses, and physician assistants. At VHA, pharmacists can operate with prescribing privileges, but represent a smaller number when compared to physicians. Hence, we collapsed the pharmacists with the nurses and physician assistants, resulting in two categories (physicians and non-physicians).