



# Evaluating the Impact of a Targeted Clinical Decision Support Opioid Toolkit on Naloxone Prescribing and Differences Among Provider Specialties in a Rural Health System

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## Background

- Only 1-in-70 high-risk patients receive a naloxone prescription despite of an increase in naloxone prescribing since 2017
- Prescribing rates remain low despite clear guidelines to co-prescribe naloxone to high-risk patients. Prescribing rates are disproportionately low among certain provider specialties
- A common strategy used to increase naloxone prescribing is to embed a naloxone alert into the electronic health record (EHR) system
- An EHR-based clinical decision support (CDS) functionality was implemented at a rural health system in Wisconsin to alert prescribers about high-risk patients through a “naloxone co-prescribing alert”
- The alert was activated in February 2020.

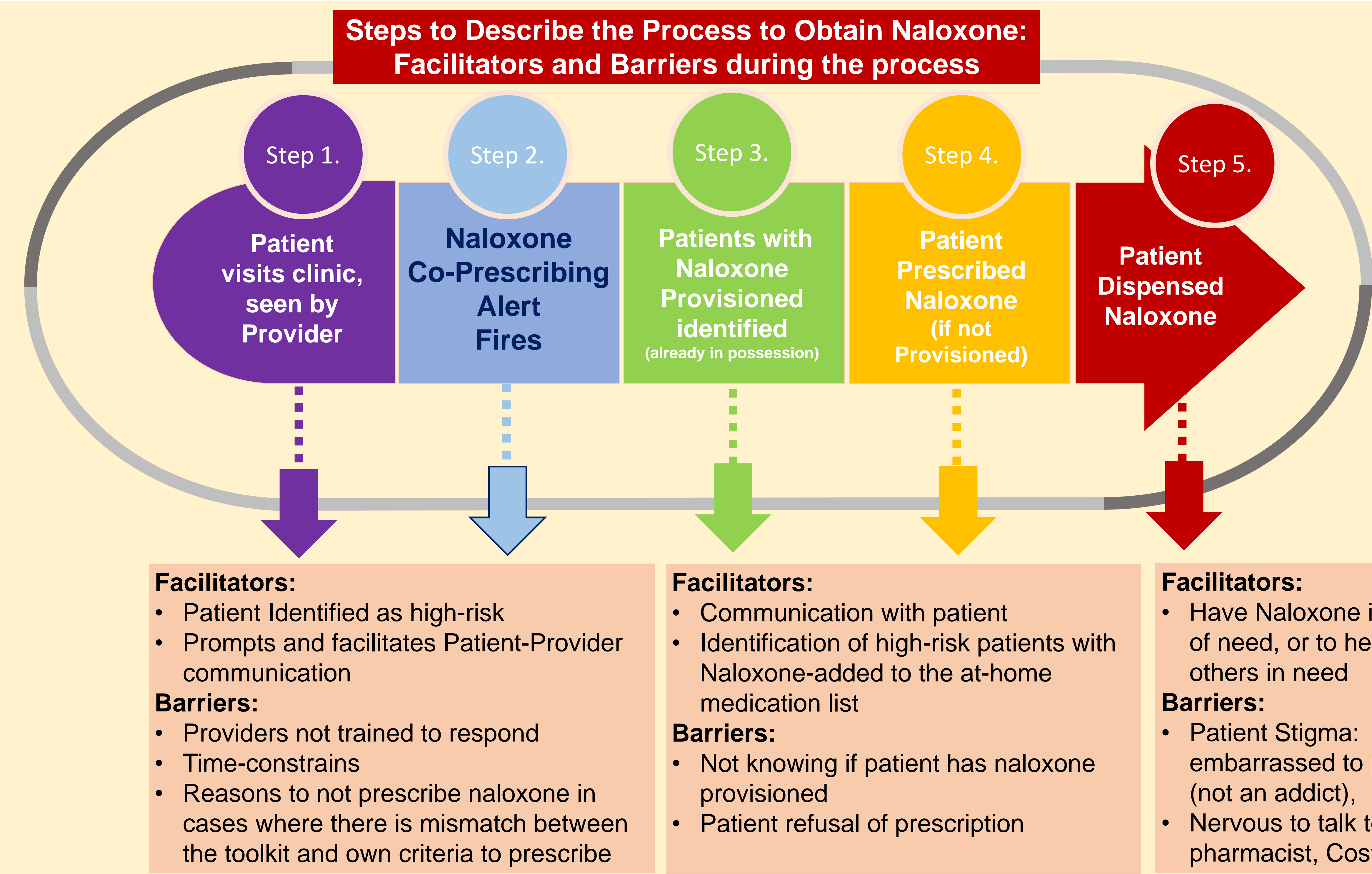
## Research Objective

- To evaluate the impact of a CDS opioid toolkit on naloxone prescribing
- To describe the process map to understand barriers and facilitators
- Examine naloxone prescribing among different provider specialties

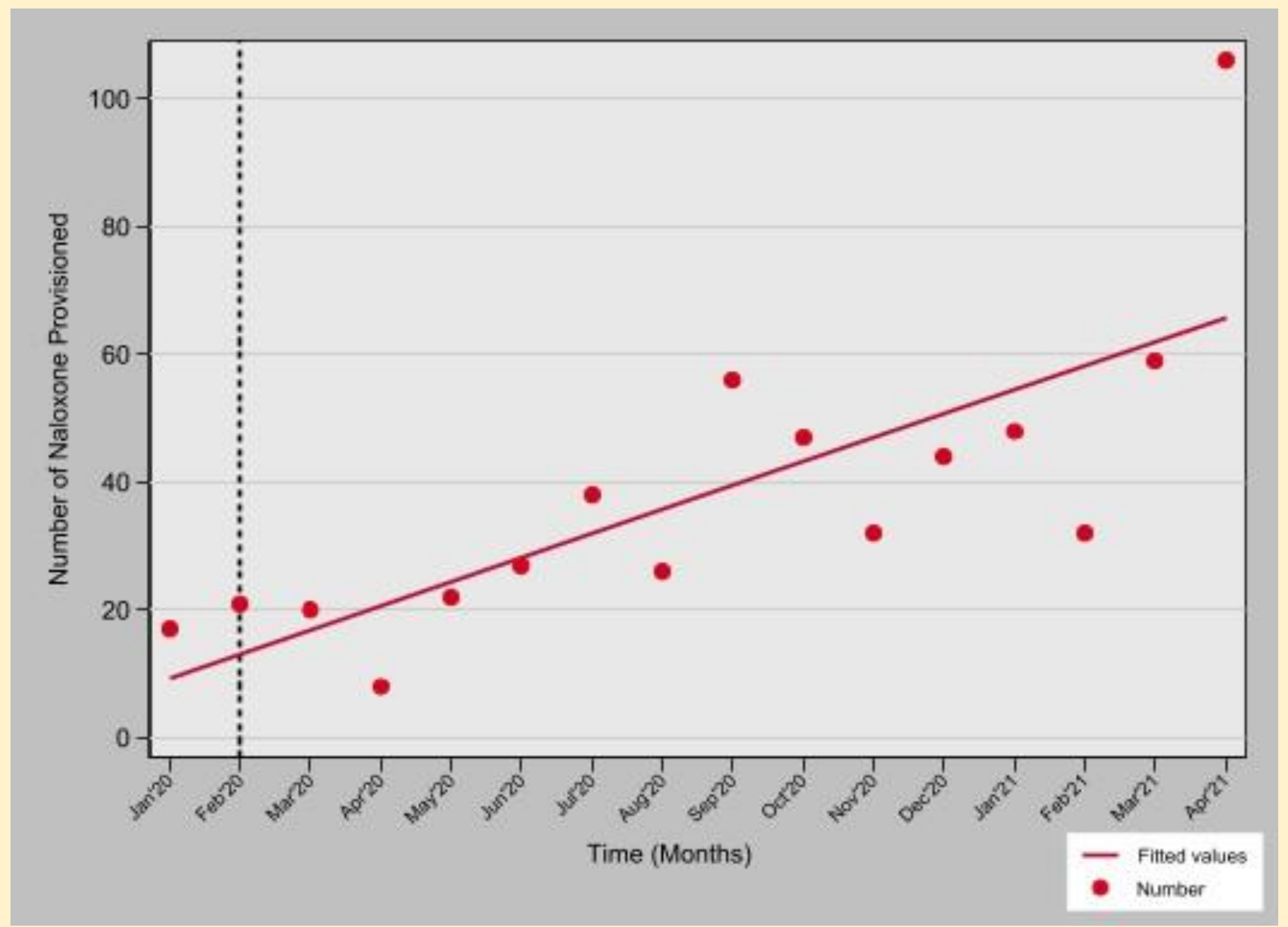
## Methods

- Monthly trends of the number of high-risk patients provisioned and prescribed naloxone were examined using Time-Series Analysis
- Data:**
  - Provisioning and Prescribing data contained in the EHR from January 2020-March 2021
- Outcome measures:**
  - Number of patients provisioned naloxone,
  - Number of naloxone prescriptions written
  - Specialties of naloxone prescribers
- Semi-structured interviews were conducted with prescribers to understand the facilitators and barriers to prescribe naloxone

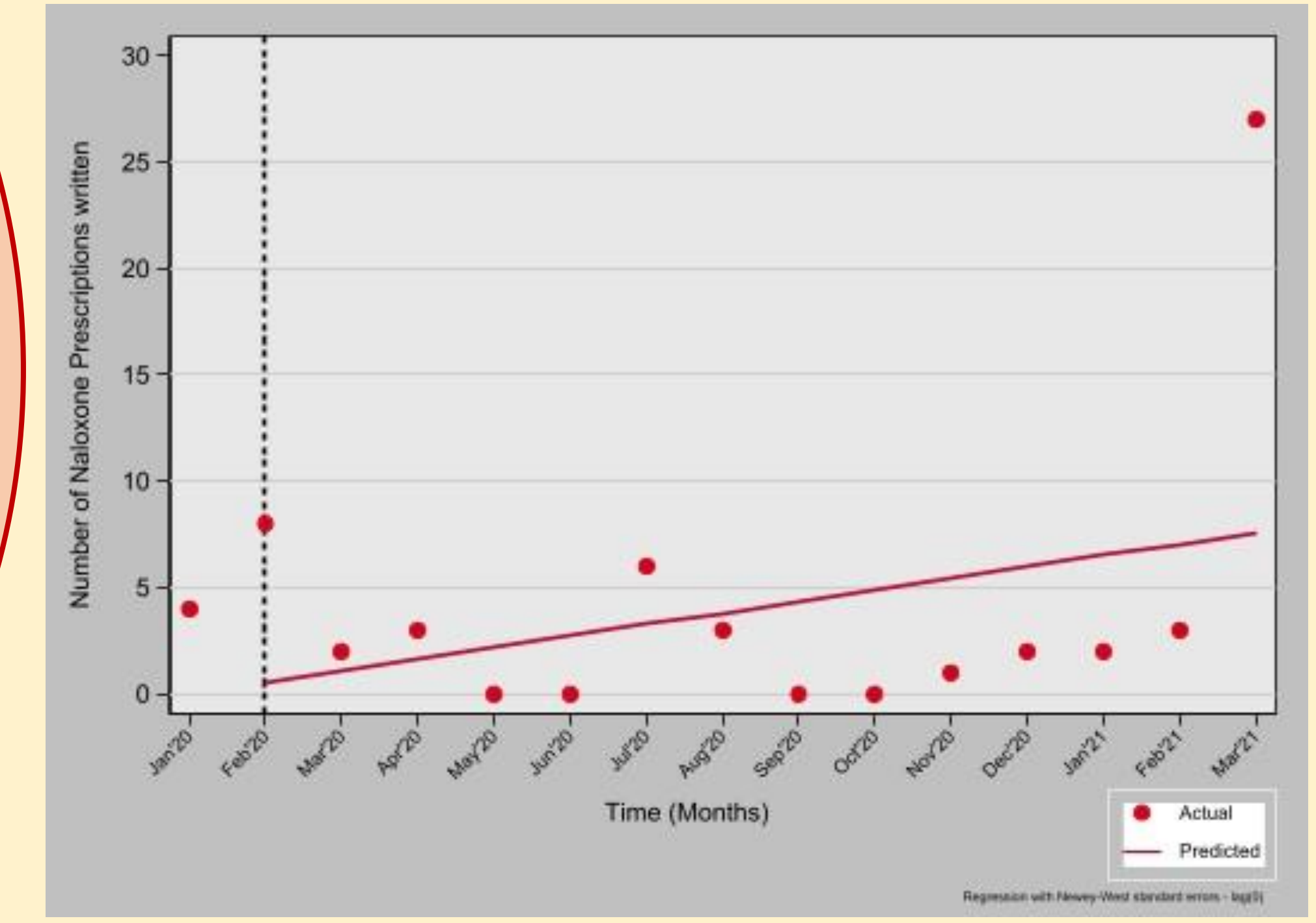
## Process Map



**Figure 1. Number of High-Risk Patients Provisioned Naloxone**



**Figure 2. Number of High-Risk Patients Prescribed Naloxone**



“Naloxone Provisioning means that after the patient conversation with the prescriber, the patient confirms possession of naloxone through a prescription written by other providers, pharmacist via standing order or other services. The provider then adds the naloxone provisioned to the patient home-med list. If the patient does not have naloxone, then the prescriber writes a naloxone prescription”.

**Notable Quotations from a provider:** “I think it helps me get closer to my goal of having the naloxone on everybody and I have on opioids that are on more than 50 MMEs a day. *I think it's been helpful to remind me to do that.* And I think the more I see it, the more I remember it when I am with patients.”  
*“I know that my prescribing of naloxone has gone up since the alert has been there.”*

## Results & Implications

- The targeted CDS-opioid toolkit has been successful in **identifying high-risk patients** and **prompting the providers to initiate provider-patient communication about naloxone provisioning and prescribing.**
- Though barriers have occurred, there has been an overall increase in the number of patients with naloxone provisioned and number of naloxone prescriptions written
- Provider specialties** that are most commonly prescribing naloxone:
  - Family Practice:** The number of prescriptions written increased from 6 prescriptions before the alert to 44 afterwards.
  - Internal Medicine:** The number of prescriptions written increased from 3 prescriptions before the alert to 9 afterwards.

## Discussion

- Reminding providers about patients “at risk”, prompting providers to initiate a conversation about naloxone provisioning and prescribing are significant benefits of the CDS-opioid toolkit
- There is a need to address the barriers in future research and develop methods to discuss naloxone use with patients and to reduce stigma associated with naloxone dispensing and use.

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