

**2022  
ANNUAL  
REPORT**

**July 1, 2021 –  
June 30, 2022**



**NEW HAMPSHIRE  
Prescription Drug  
Monitoring Program**



**NH DIVISION OF  
Public Health Services**

Department of Health and Human Services



# What Is the New Hampshire Prescription Drug Monitoring Program (PDMP)?

## Database

- Statewide, web-based database of all controlled substance (schedule II-IV) prescriptions which were dispensed by NH-licensed pharmacies
- Practitioners may view 3 rolling years of filled prescriptions of their patients, providing the opportunity to assess prescription drug utilization

## Clinical Tool

- Promotes appropriate prescribing and dispensing, while deterring the misuse, abuse, and diversion of controlled substances

## Peer Comparisons

- Allows prescribers to see their prescription metrics compared to their peers

## Reporting Tool

- Reporting tools that are used by the PDMP to analyze information about registrants, patient queries, and the dispensing of controlled substances statewide

# Program Changes

## PDMP Transferred from OPLC to DHHS

- Effective July 1, 2021; via HB2 (2021 session)
- Statutory authority moved from RSA 318-B (Office of Professional Licensure and Certification) to RSA 126-A (Department of Health and Human Services)

## Statutory Changes

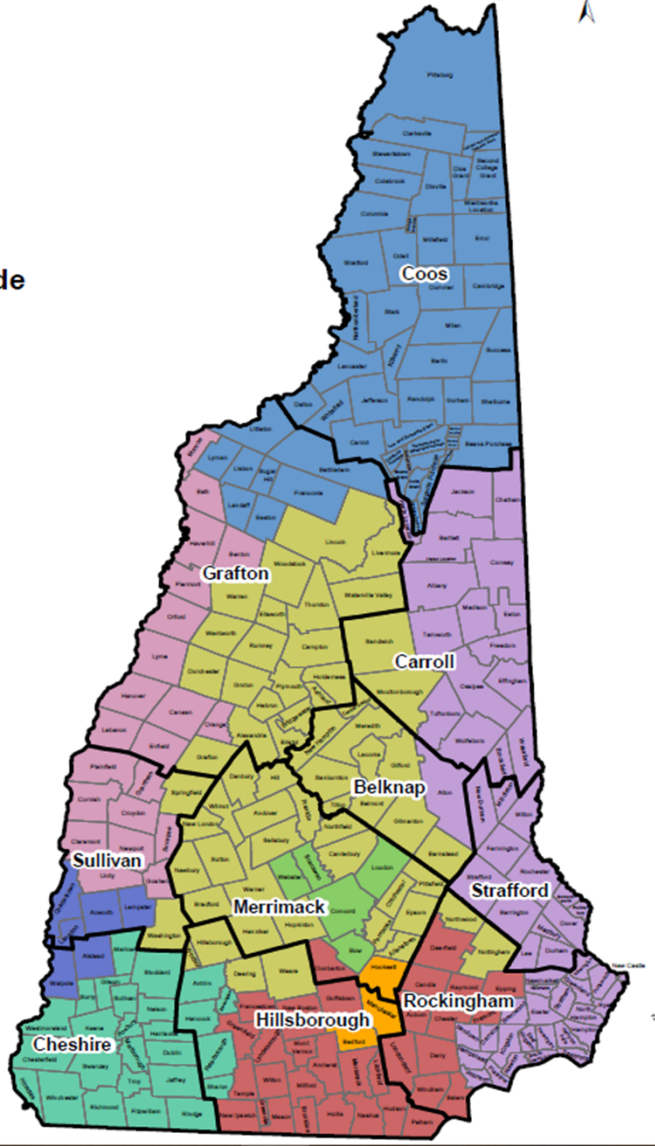
- New confidentiality standard for data release established in RSA 126-A:92, III (HB2, 2021 session)
  - “all patient-specific protected health information [shall be] de-identified in accordance with section 164.514(b)(2) of the HIPAA Privacy Rule” (this is known as the “safe harbor” standard)
- Integration of PDMP data into practitioners’ electronic health record systems and pharmacy management systems is allowed (SB45, 2021 session)

## HIPAA “Safe Harbor” Standard

- The following identifiers of the individual or of relatives, employers, or household members of the individual, are removed:
  - All geographic subdivisions smaller than a State, including street address, city, county, precinct, zip code, and their equivalent geocodes, except for the initial three digits of a zip code [ZIP-3] if, according to the current publicly available data from the Bureau of the Census:
    - The geographic unit formed by combining all zip codes with the same three initial digits contains more than 20,000 people; and
    - The initial three digits of a zip code for all such geographic units containing 20,000 or fewer people is changed to 000 [or is combined with another ZIP-3 region]

# New Hampshire PDMP ZIP-3 Map

- County
- Town
- 3 Digit Zip Code**
- 030
- 031
- 032
- 033
- 034
- 035
- 036
- 037
- 038



## NH ZIP-3 Regions:

- Do not correspond to NH counties
- Include one ZIP-3 region (036) that has fewer than 20,000 residents, for which data cannot be separately released
- Do not allow for the continuity of historical PDMP data release by county

Throughout this report, 036 data has been combined with data from 037



Published May 2022

# Highlights for SFY 2022

## Utilization

- Registrant counts have increased by 8.4%
  - 21,985 registrants as of June 30, 2022
- Patient queries have increased by 14%
  - More than 1.2 million queries were made in SFY22
- 7,000 registrants made patient queries
  - 2,350 registrants who made queries were delegates
  - Delegates made more than 59% of all patient queries

## Prescribing Trends

- **Opioids:** Filled prescription counts for opioids have decreased
- **Stimulants:** Filled prescription counts for stimulants have increased
- **Sedatives:** Filled prescription counts for sedatives have decreased (but remain the highest count of these three drug types)

# Registration, Data Submission, and Utilization

## Registration

- Registration with the PDMP is required for all prescribers and dispensers licensed in NH
- Prescribers and dispensers may delegate PDMP access authority to other staff (licensed or unlicensed)

## Prescription Data Submission

- Each dispenser must submit to the PDMP information about each dispensing of a schedule II-IV controlled substance
- Out-of-state dispensers licensed in NH must submit information about each schedule II-IV controlled substance dispensed to a patient who resides in NH
- Dispensation data must be submitted by close of business on the next business day from the date of dispensation

## Utilization

- Prescribers must query the PDMP when writing an initial schedule II-IV opioid prescription for the management or treatment of a patient's pain or substance use disorder and then periodically, at least twice a year.

# SFY 2022 Enhancements

## PDMP Database Platform

- NarxCare - Enhanced patient prescription history reporting for practitioners, including risk scores, interactive data visualizations, and communications module
- Gateway - PDMP integration with electronic health records
- Both are deliverables included in the current contract with vendor (Bamboo Health)

## Practitioner Utilization

- EHR integration addresses user feedback to reduce time needed to query PDMP by integrating PDMP data into existing clinical workflows
- Goal is to decrease time to perform patient queries, and thus increase utilization of the PDMP (saving ~4 minutes per query)

## Registrant Reverification

- Ensure that only the appropriate entities have access to the NH PDMP
- Analyzed all user accounts for matching state license demographics and DEA registration demographics
- In process of updating or deactivating accounts that do not match with licensing and DEA

# NarxCare

## System Enhancement

- Provides interactive visualizations of PDMP data to support clinical decision-making
- Includes proprietary scores for relative prescribing risks and overdose risks (as recommended by NH PDMP Advisory Council)
- Includes state-specific clinical alerts (as recommended by NH PDMP Advisory Council)

## Visualizations

- Provides interactive, color-coded bar graphs of all controlled substances filled in the past 2 years
- Shows overlap of prescriptions, including potentially dangerous combinations

## Proprietary Risk Scores

- Narx Scores represent a relative scoring system wherein risk factors relative to a patient's prescription history are counted and then converted to a reference value
- Overdose Risk Scores numerically represent the risk of unintentional overdose death



# NarxCare

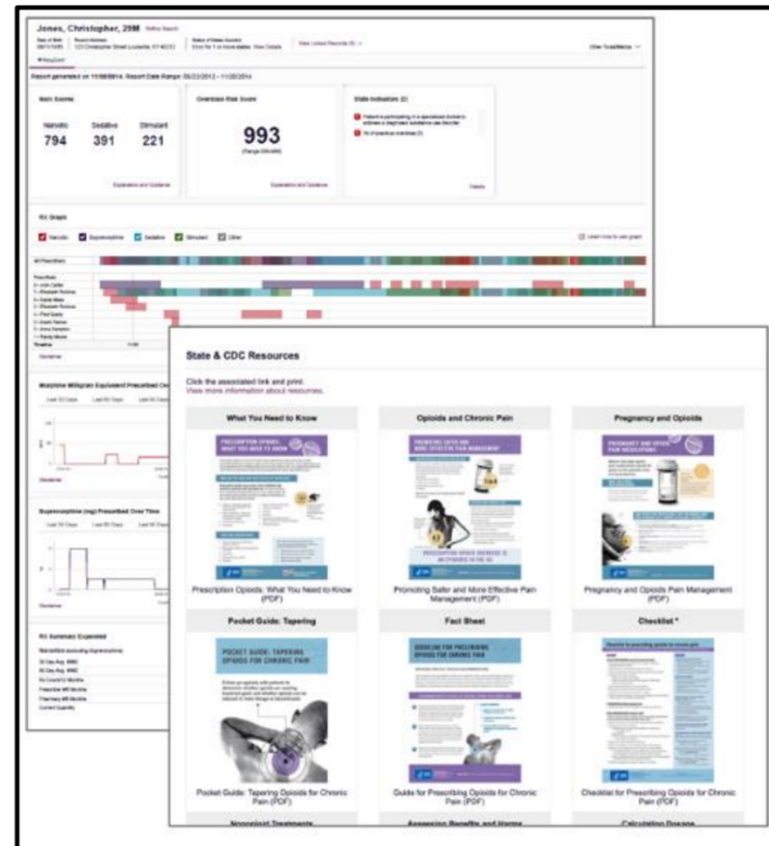
## The NarxCare Report

The NarxCare Patient Request Report is divided into sections, including:

1. Header
2. Scores and Indicators
3. Rx Graphs and Summaries
4. Full Prescription Detail

The header of the report contains patient identification and selectable menu items.

- **Narx Report** is the default presentation.
- **Resources** directs you to a page with MAT and CDC resources that can be used for patient care.



# NarxCare

## Rx Graphs and Rx Summaries

- Graphs are provided to reveal important details of prescription use.
- On the Rx Graph, providers are listed on the left, and color-coded prescriptions are graphed in reverse time order.
- The Rx Graph is interactive. You can filter by prescription type. You can click on a prescription or drag over several to see additional details.
- Rx Summary tiles include MME and Buprenorphine graphs. These are interactive as well.



# Gateway Integration

## Improved Access

- Allows PDMP users to access PDMP data from within their healthcare entities' electronic health record (EHR) software platform
- Generally one-click access to PDMP data
- Access is logged by EHR software and Gateway software
- First two years (through January 2024) funded by the State using federal grant funds

## Time Savings

- Eliminates the need to navigate to the web-based PMP AWARxE platform to perform patient queries outside the clinical workflow
- Saves ~4 minutes per patient (can save an average of 1.5+ hours per day)
- Can enable providers to spend more time with patients rather than performing AWARxE logins

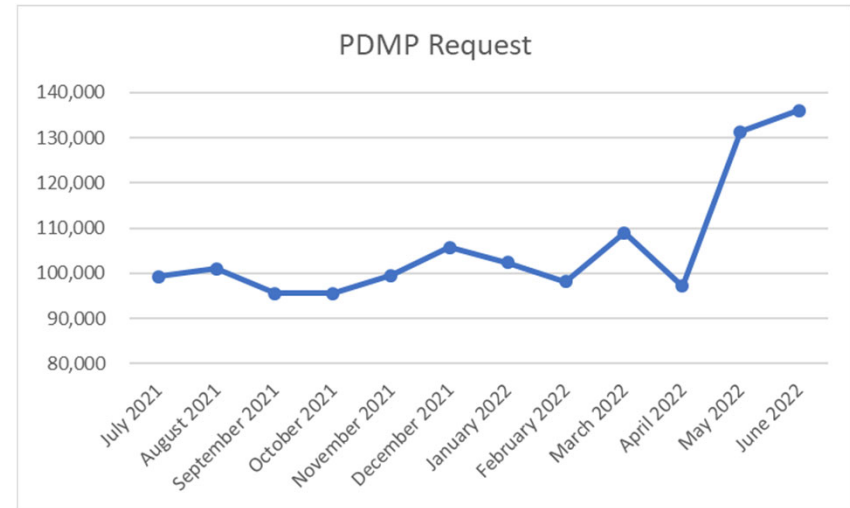
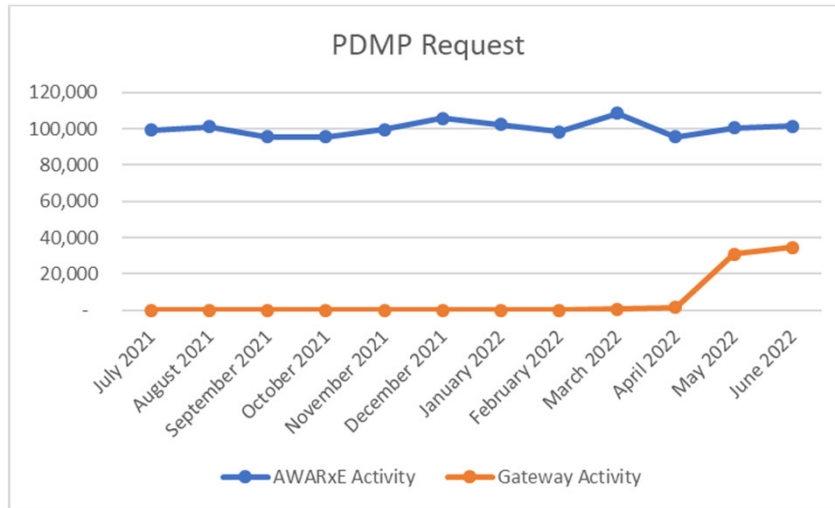
## Increased Use

- Efficiency and ease of use translate to increased use of the PDMP system
- Increased use leads to greater compliance and patient safety

## Better Data Visibility

- Queries are more likely to be performed by the provider, rather than a delegate
- Allows PDMP data to be displayed side-by-side with other clinical information contained within the EHR resulting in better coordination of care
- Allows users to see all data that would be displayed by the web-based PMP AWARxE

# Gateway Integration



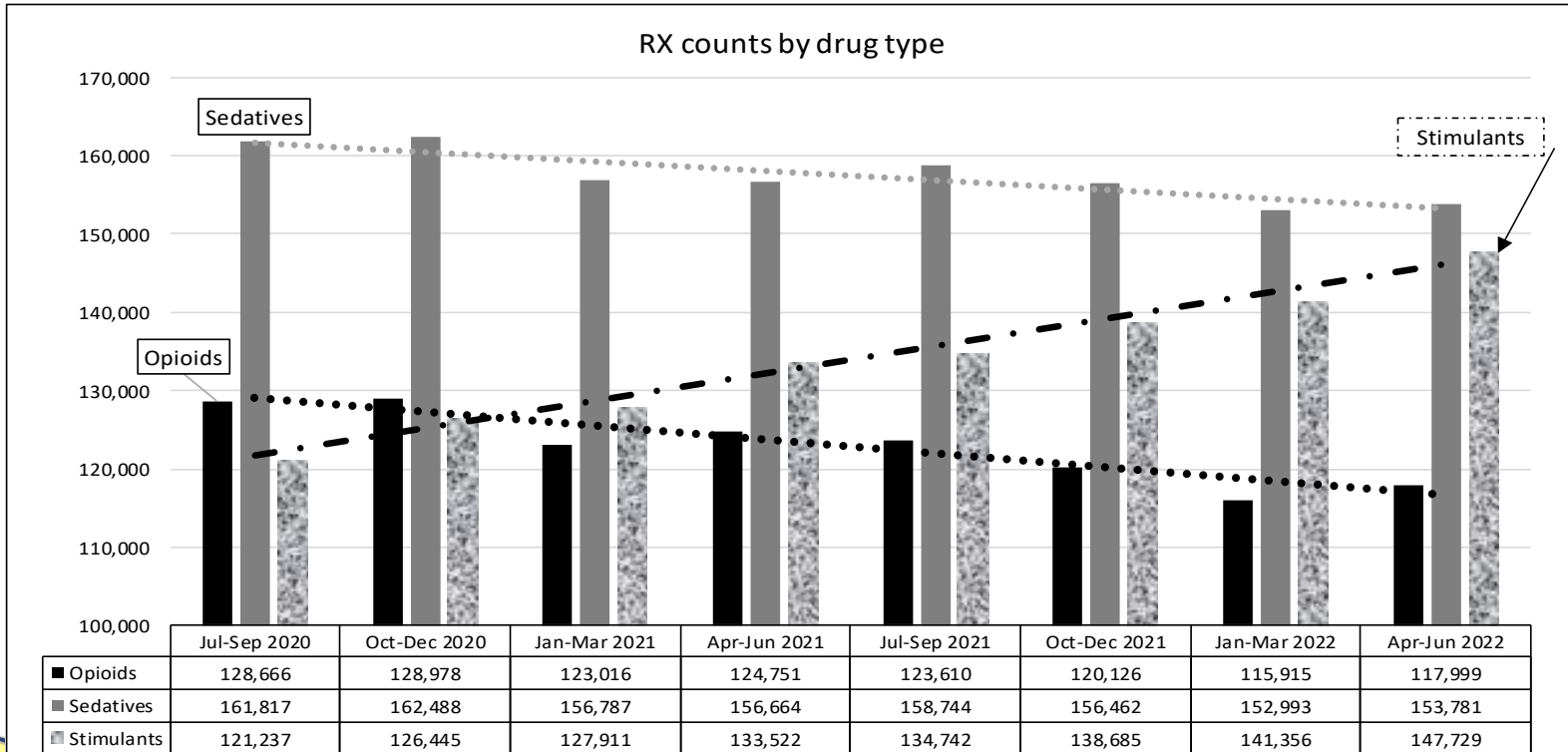
- Military Health System in March 2022
- Chain pharmacies in April 2022
- All other Healthcare Entities eligible in April 2022
- Marketing campaign launched in May 2022
- In the first two months of implementation, the number of PDMP queries increased by 36%

# PRESCRIPTION COUNTS

# Filled Prescription Counts (SFY 21-22)

July 1, 2020 through June 30, 2022

- Opioid prescription counts decreased by 8%
- Stimulant prescription counts ***increased by 22%***
- Sedative prescription counts decreased by 5% (sedatives represent the largest category of filled prescriptions at approximately 37% of all prescriptions filled)

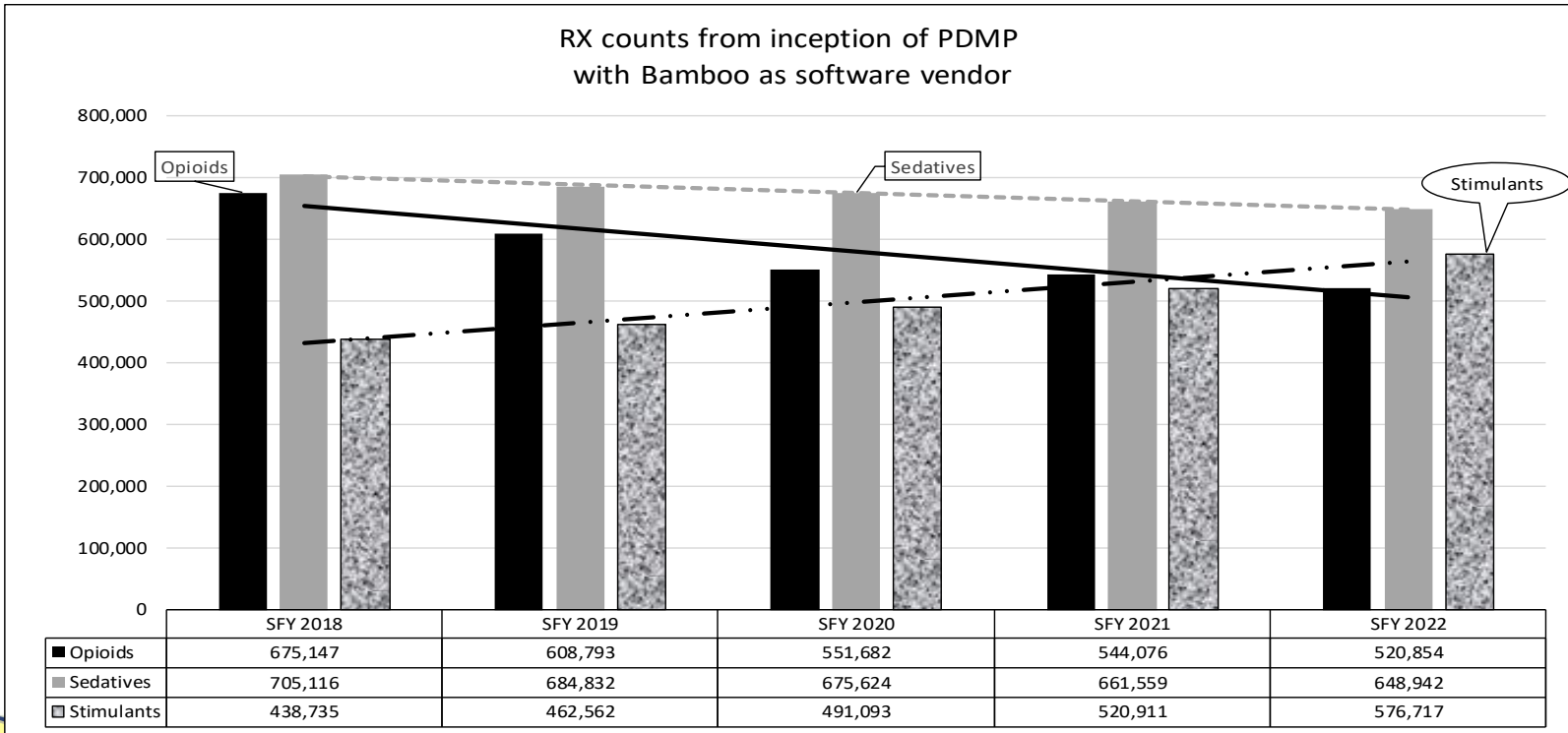


Prescriptions were counted individually, regardless of their days' supply. Change in days' supply is shown later

# Filled Prescription Counts (SFY 18-22)

**July 27, 2017 through June 30, 2022 (~5 years)**

- Opioid prescription counts decreased by 23%
- Stimulant prescription counts ***increased by 31%***
- Sedative prescription counts decreased by 8% (sedatives represent the largest category of filled prescriptions at approximately 37% of all prescriptions filled)
- Total controlled substance prescriptions (not shown) have decreased 4%



Prescriptions were counted individually, regardless of their days' supply. Change in days' supply is shown later

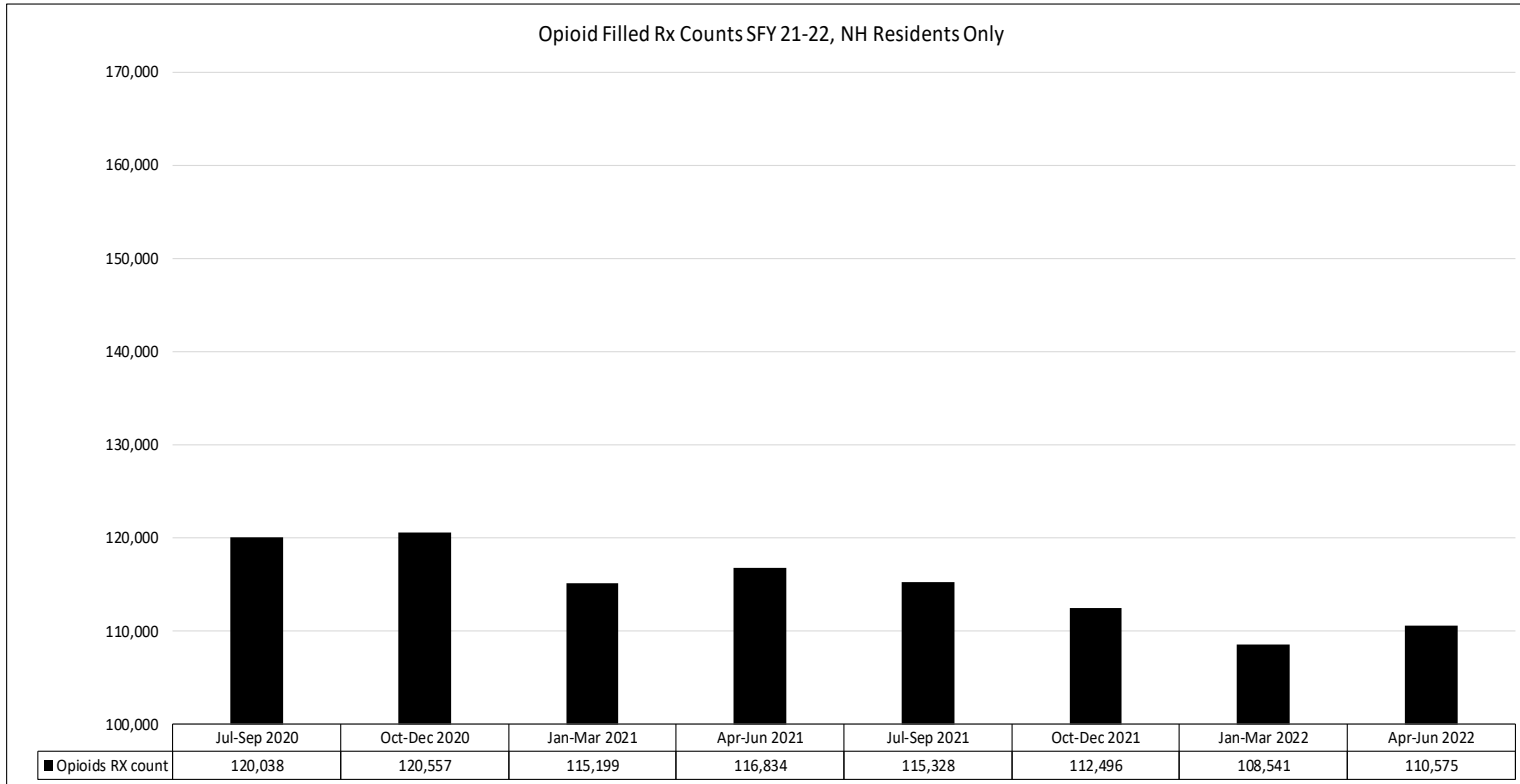
# OPIOIDS



# Filled Opioid Prescription Counts (SFY 21-22) NH Residents Only

**July 1, 2020 through June 30, 2022**

- Opioid prescription counts for NH residents decreased by 7.9% over the reporting period

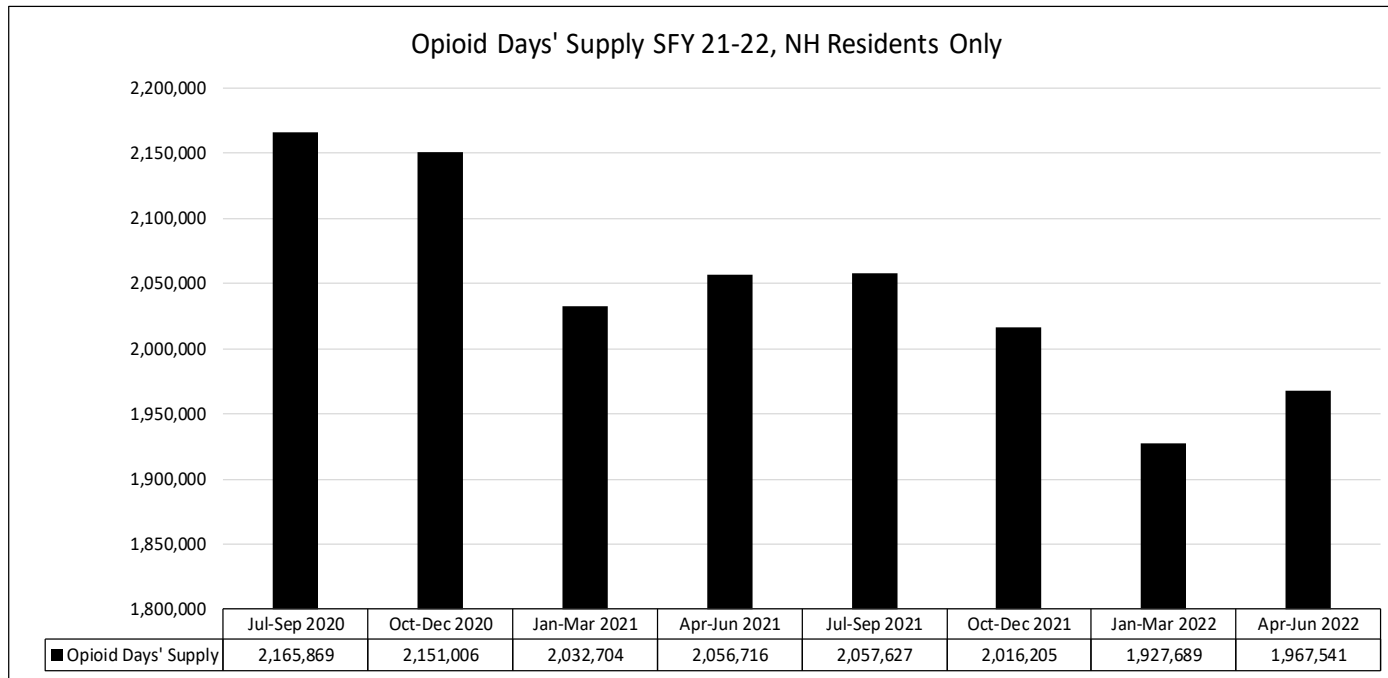


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# Days' Supply of Opioid Prescriptions (SFY 21-22) NH Residents Only

July 1, 2020 through June 30, 2022

- The decrease in filled opioid prescriptions was NOT offset by an increase in days' supply
- Opioid total days' supply has decreased (9.2%)



# Morphine Milligram Equivalent (MME)

A method to express the strength of an opioid prescription as though the prescription were for morphine

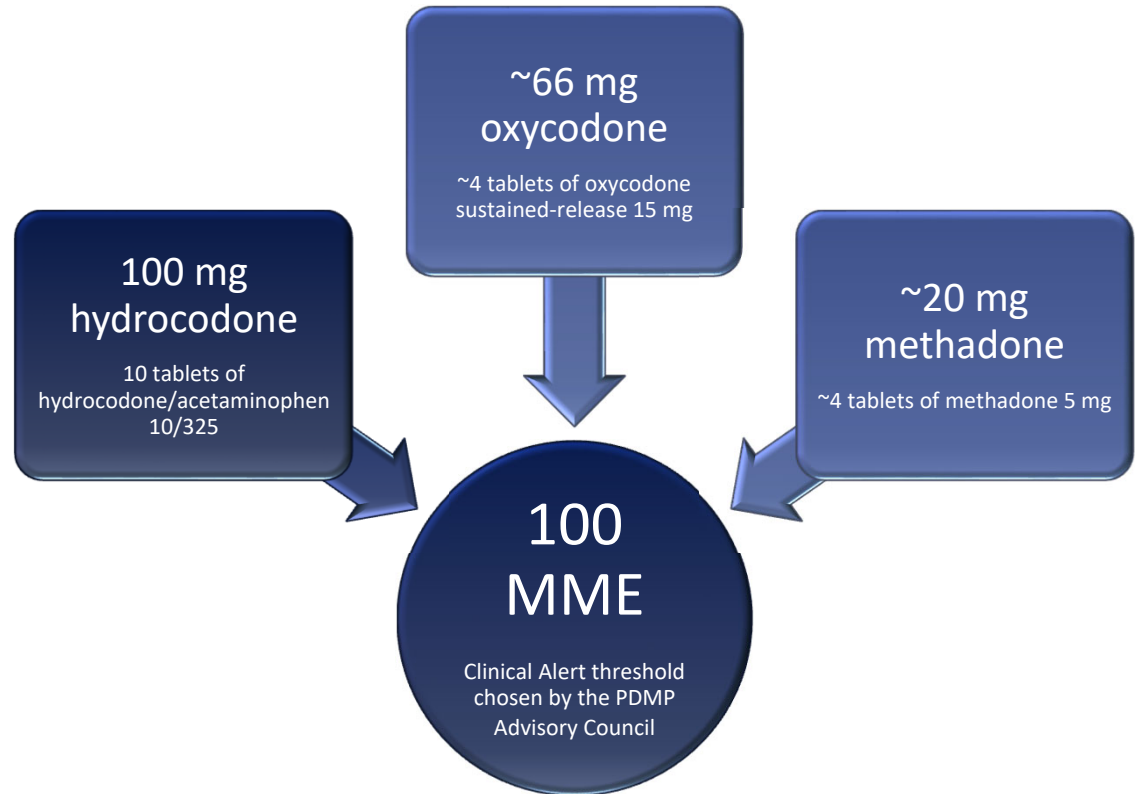
## Calculating morphine milligram equivalents (MME)

OPIOID (doses in mg/day except where noted)	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥ 61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3

*These dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics.*

### USE EXTRA CAUTION:

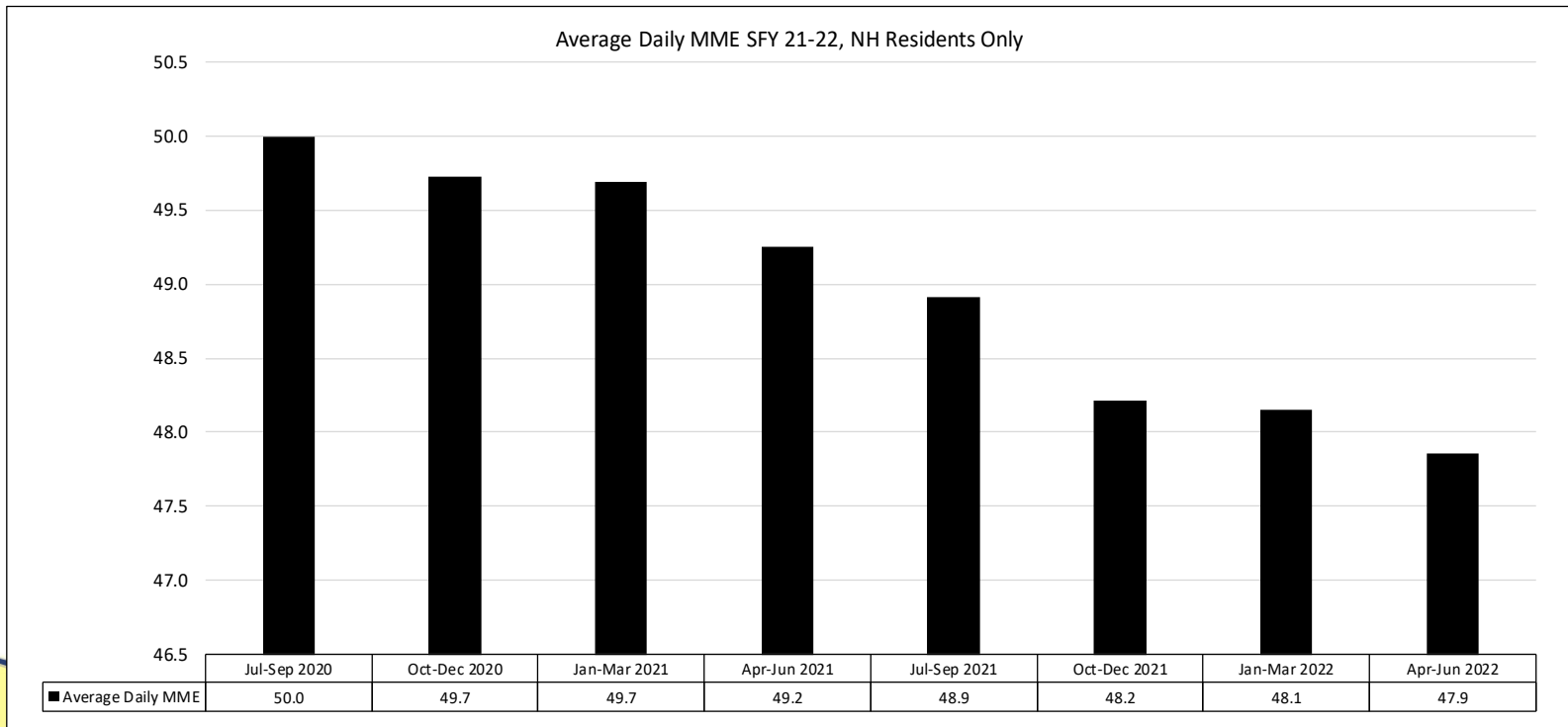
- **Methadone:** the conversion factor increases at higher doses
- **Fentanyl:** dosed in mcg/hr instead of mg/day, and absorption is affected by heat and other factors



# Average Daily MME per NH Opioid Prescription (SFY 21-22) - NH Residents Only

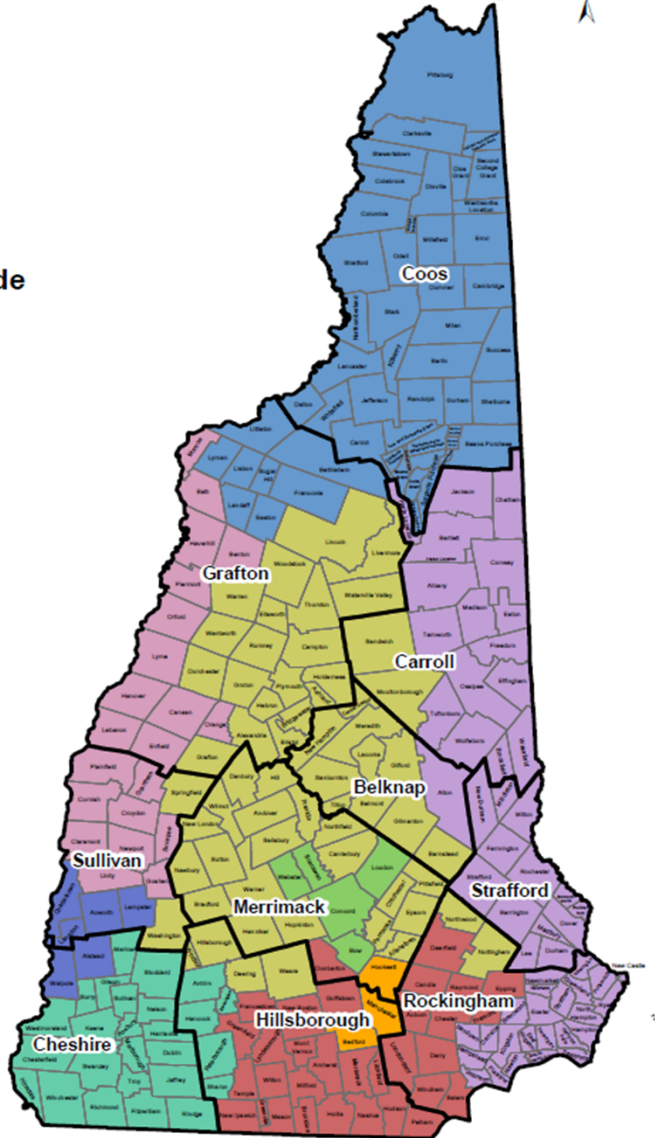
July 1, 2020 through June 30, 2022

- The decrease in filled opioid prescriptions and in days supply was NOT offset by an increase in drug strength
- Opioid MME has been relatively consistent, with a slight downward trend



# New Hampshire PDMP ZIP-3 Map

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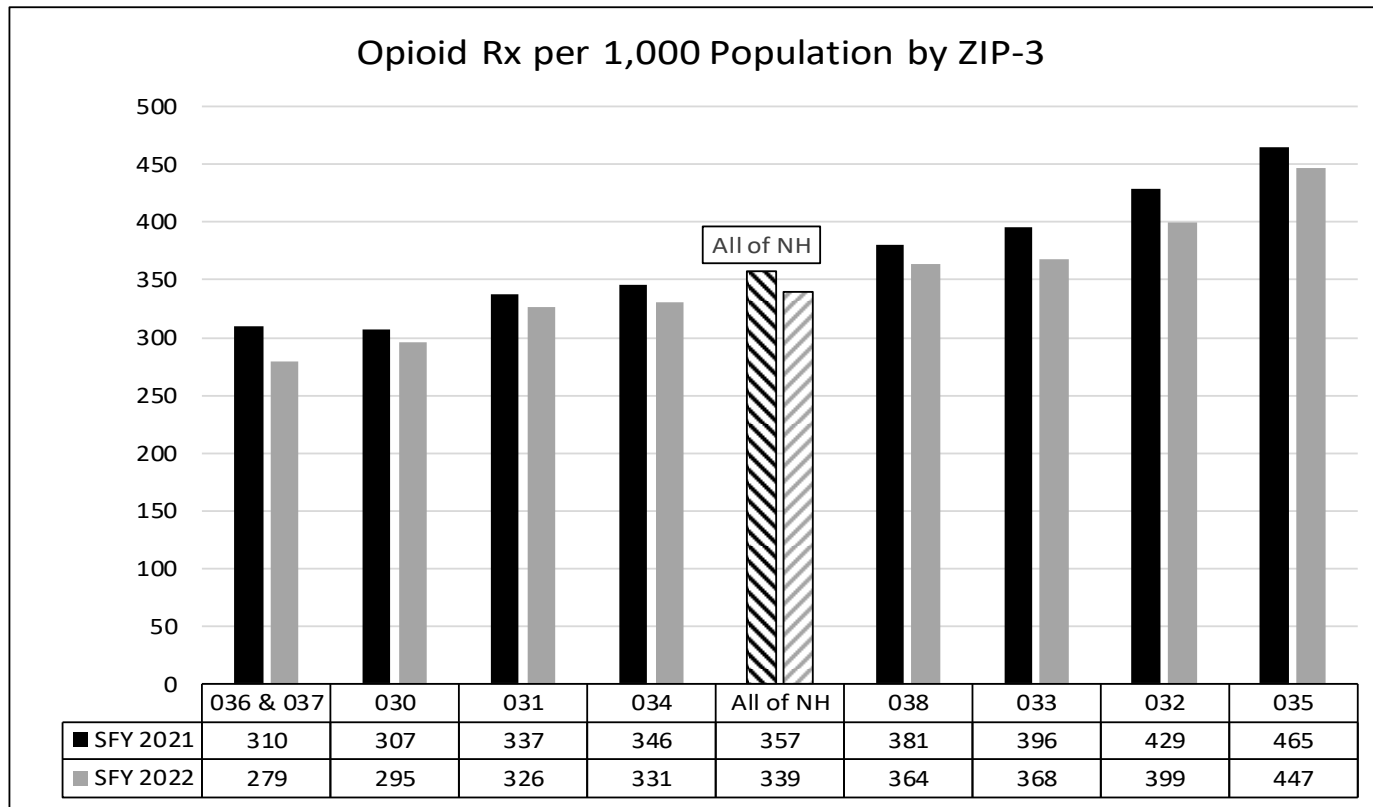
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Published May 2022

# Opioid Prescription Counts per 1,000 Residents, by ZIP-3

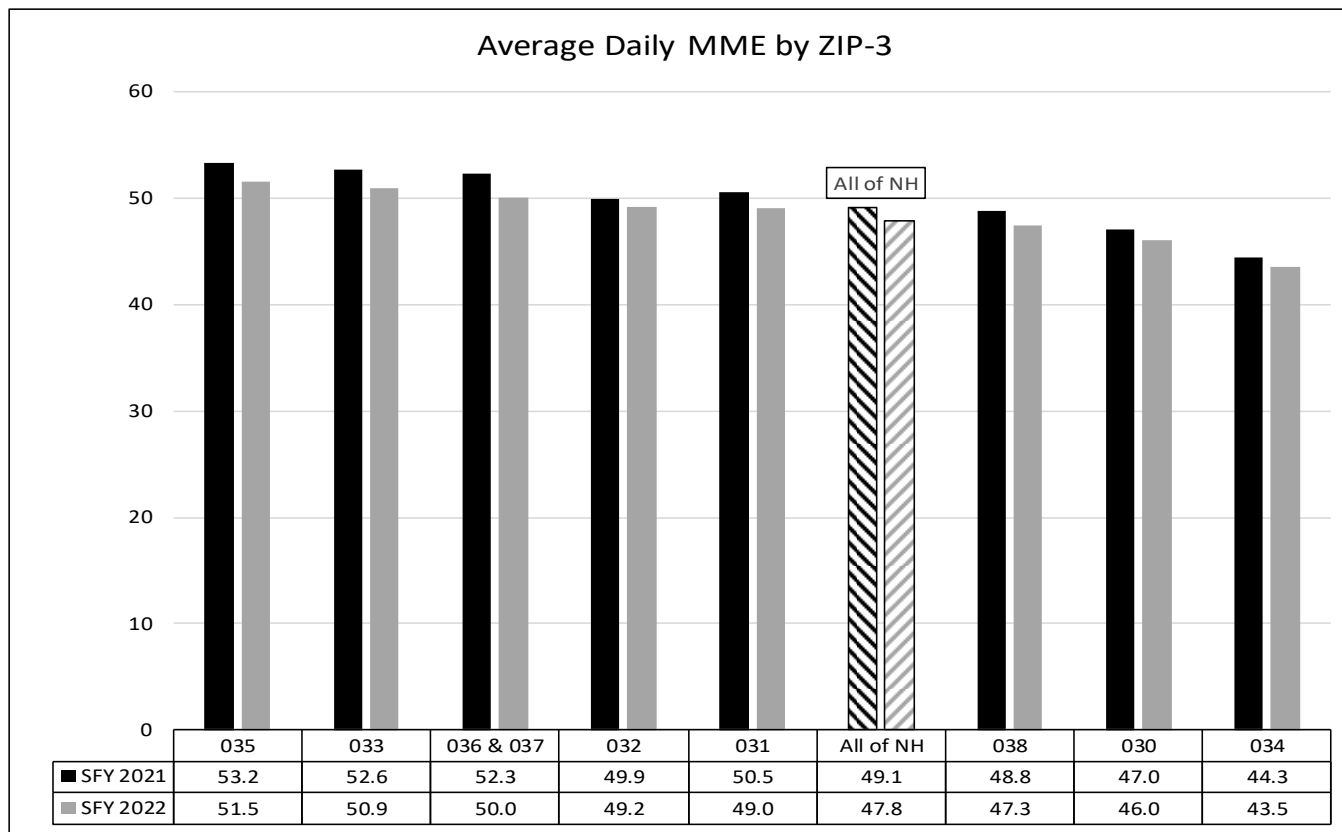
- Statewide (“all of NH”) had a decrease of 5% from SFY 21 to SFY 22
- All ZIP-3 regions had decreases. The combined ZIP-3 region of 036 & 037 had the largest decrease at 10%. ZIP-3 031 had the smallest decrease at 3%
- Overall, ZIP-3 035 has the highest count: 32% greater than “all of NH” and 60% greater than the lowest count in ZIP-3 036 & 037



(Population data from [County Population by Characteristics: 2010–2020 \(census.gov\)](https://www.census.gov) accessed August/2021).

# Average Daily MME per Opioid Prescription, by ZIP-3

- Average daily MME per opioid prescription has declined in each ZIP-3 region from SFY 21 to SFY 22
- For SFY 22, ZIP-3 035 has the highest average. That region is almost 8% higher than the statewide average ( "All of NH"), and is 18% higher than the lowest average in ZIP-3 034



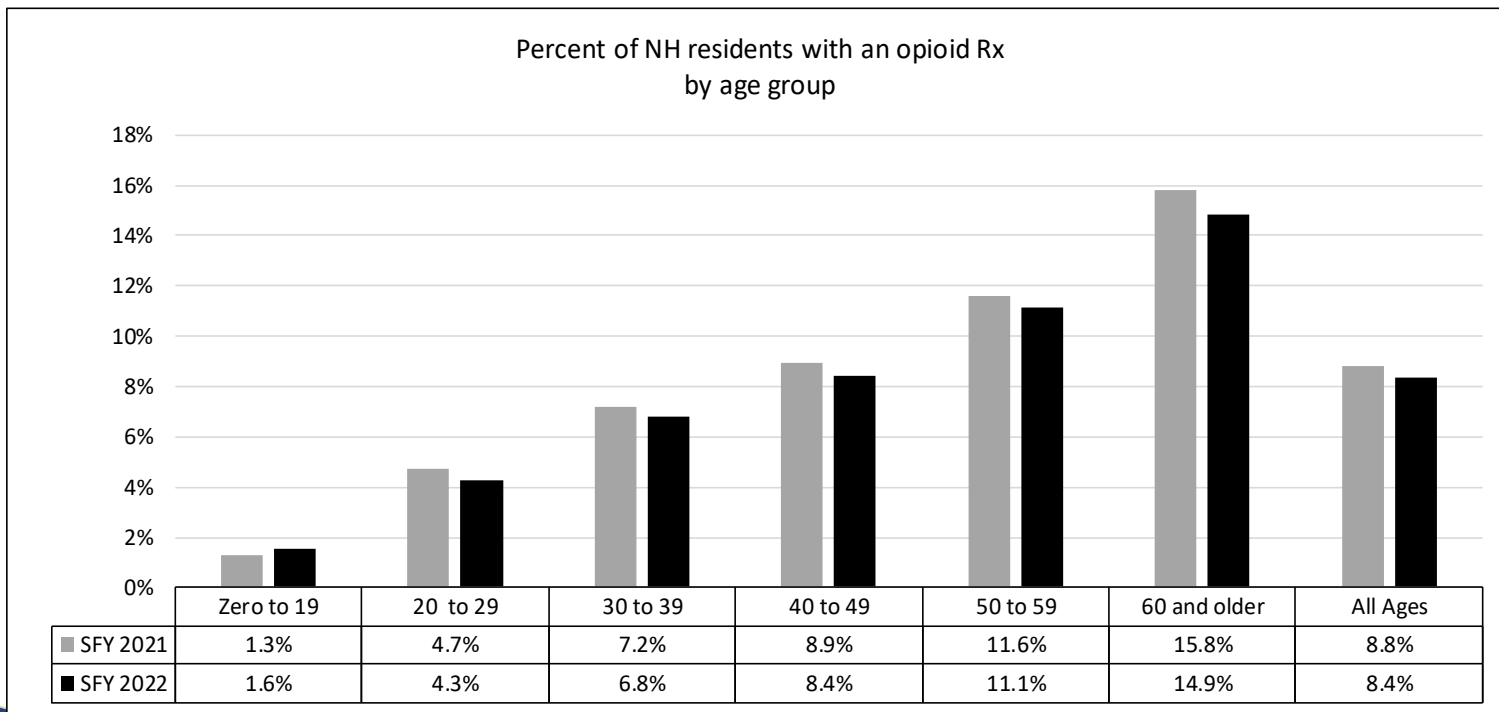
# NH Residents with an Opioid Prescription, by Age Group

## SFY 2021

- 120,373 residents (all ages) with an opioid prescription from a NH prescriber
- 8.8% of all residents

## SFY 2022

- 114,428 residents (all ages) with an opioid prescription from a NH prescriber
- 8.4% of all residents

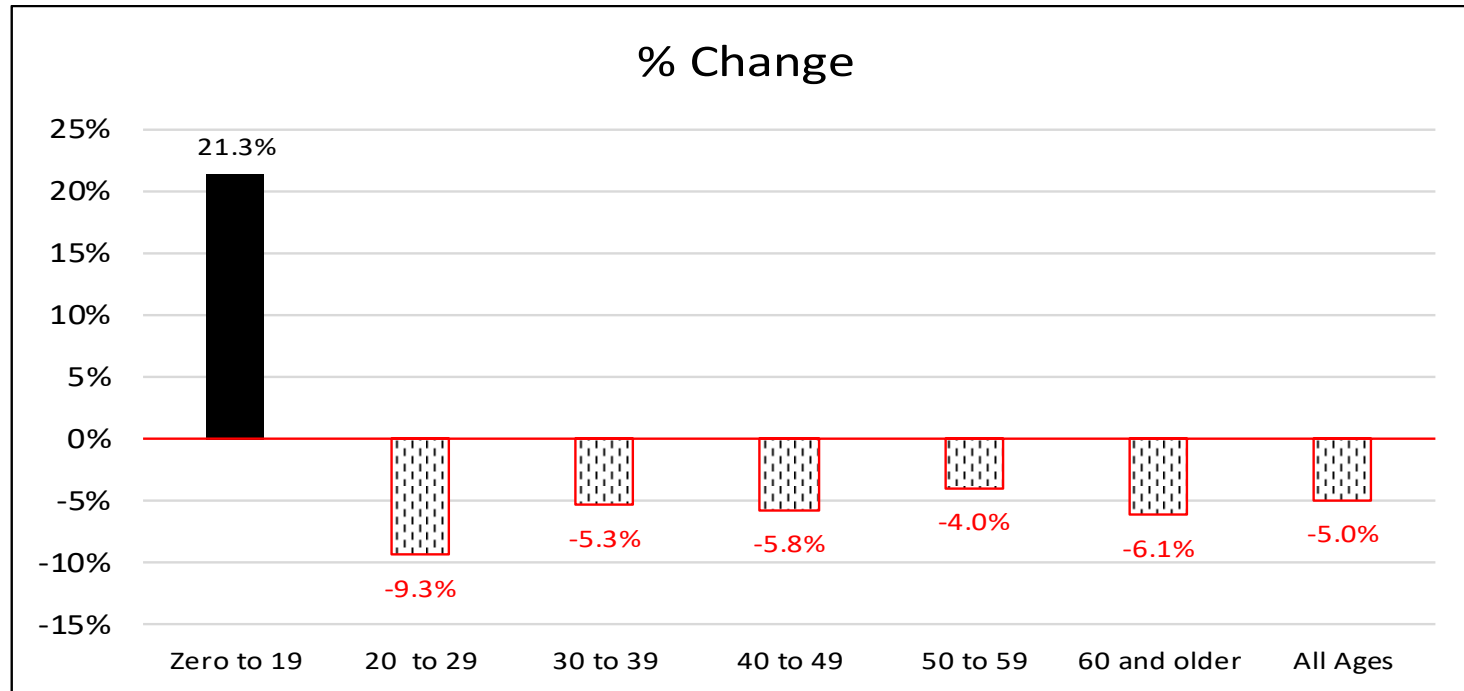




# NH Residents with an Opioid Prescription

## Percent Change by Age Group from SFY 21 to SFY 22

PDMP analysis indicates that 56% of the increase in the 0 to 19 age range was due to prescribers registered with the role of Dentist and with a specialty of Oral and Maxillofacial Surgery



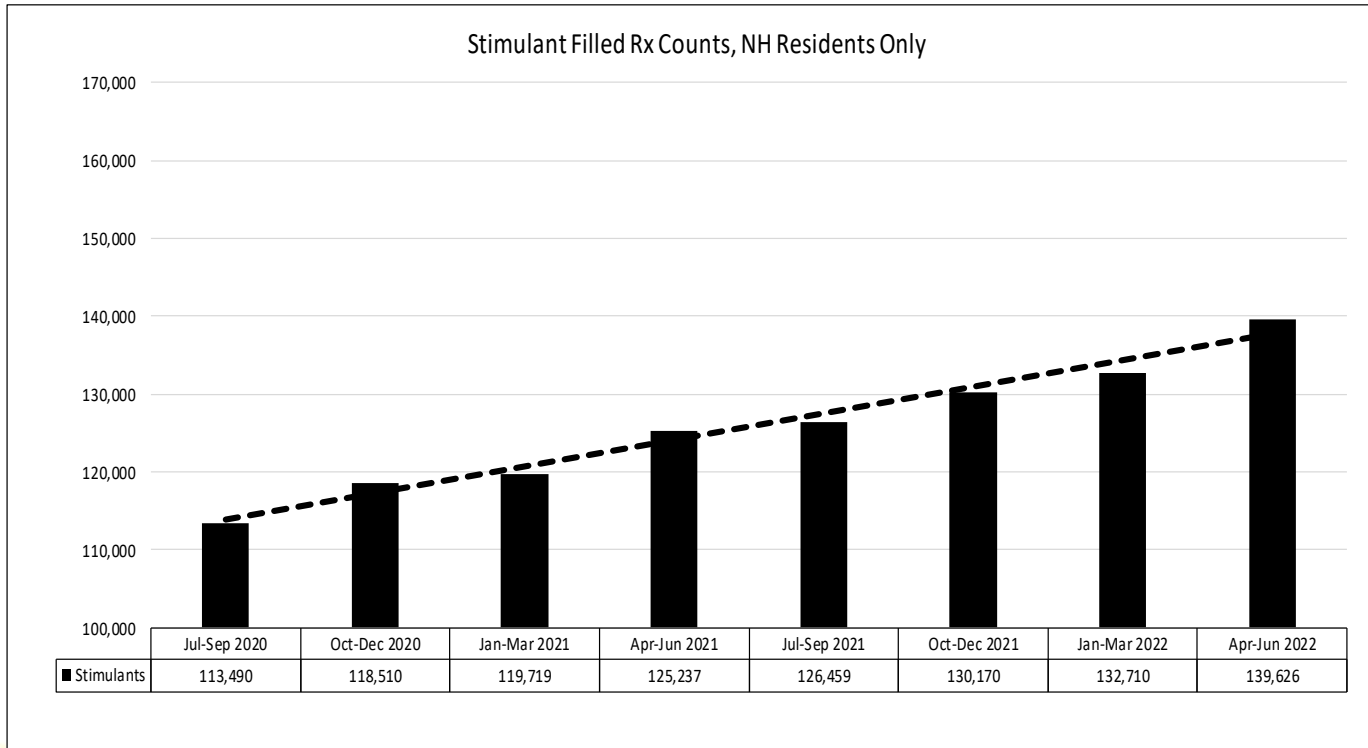
Person count by age group	Zero to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 and older	All Ages
SFY 2021	3,726	8,237	12,245	14,168	23,620	58,498	120,494
SFY 2022	4,520	7,468	11,598	13,352	22,685	54,902	114,525

# STIMULANTS

# Filled Stimulant Prescription Counts (SFY 21-22) NH Residents Only

July 1, 2020 through June 30, 2022

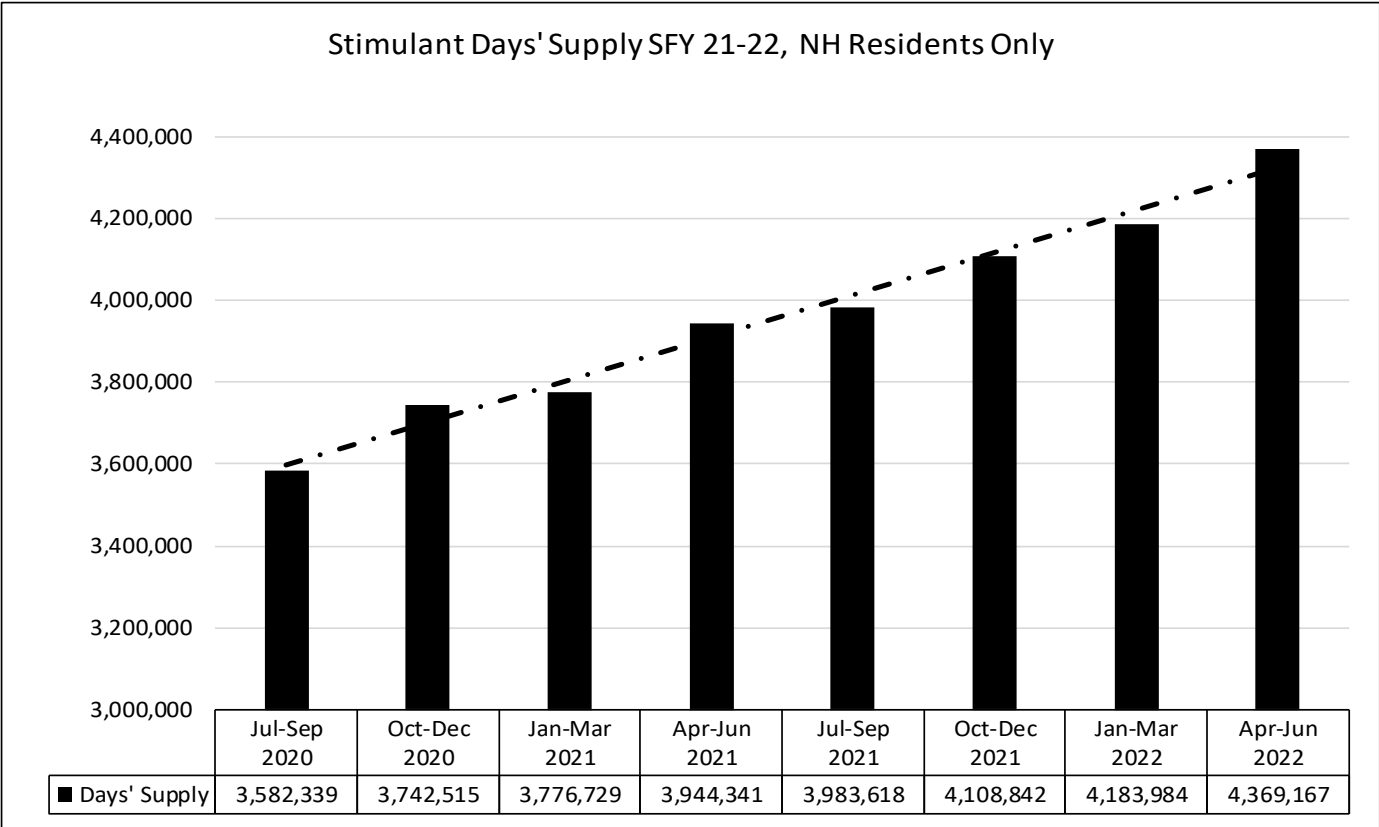
- Stimulant prescription counts for NH residents *increased* by 19.4%



Prescriptions were counted individually, regardless of their days' supply. Change in days' supply is shown later

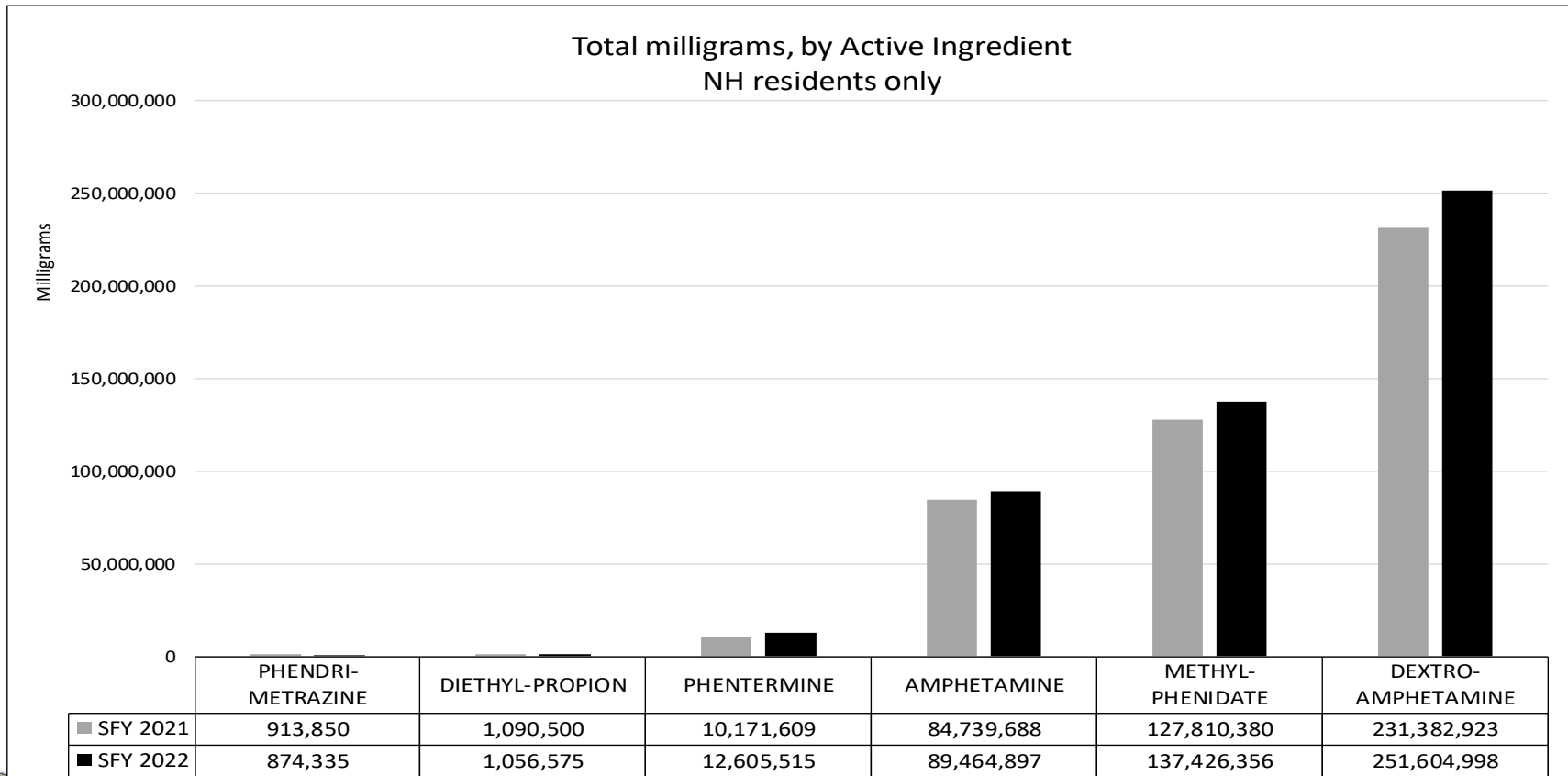
# Days' Supply of Stimulant Prescriptions (SFY 21-22) NH Residents Only

➤ There has been a 22.4% increase in days' supply of stimulant prescriptions, in addition to the 19.4% increase in stimulant prescription counts over the 24-month period

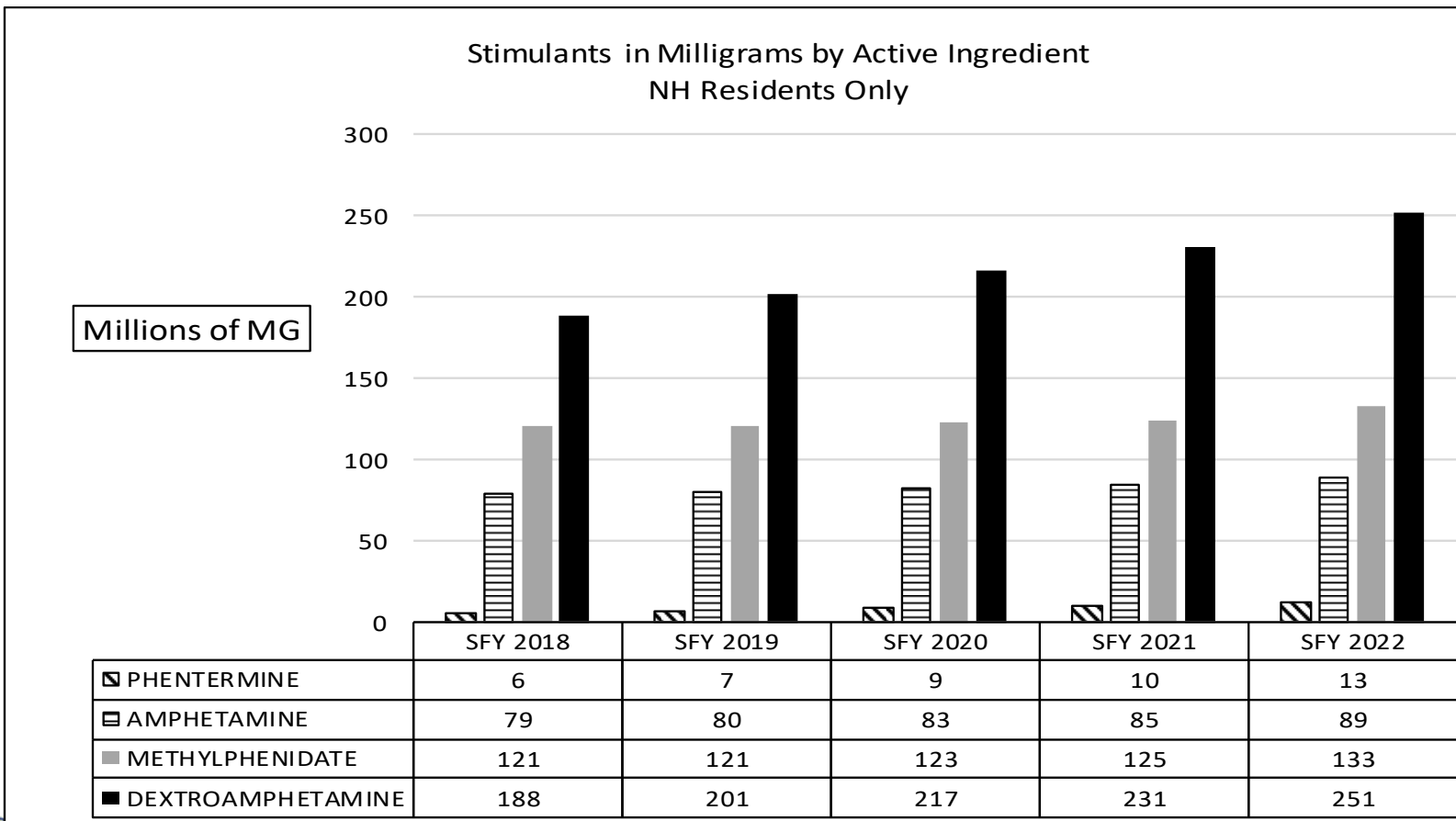


# Stimulant Prescriptions, in Total Milligrams (SFY 21-22) NH Residents Only

➤ The volume of total milligrams of stimulant prescriptions by active ingredient has increased 8% from SFY 21 to SFY 22

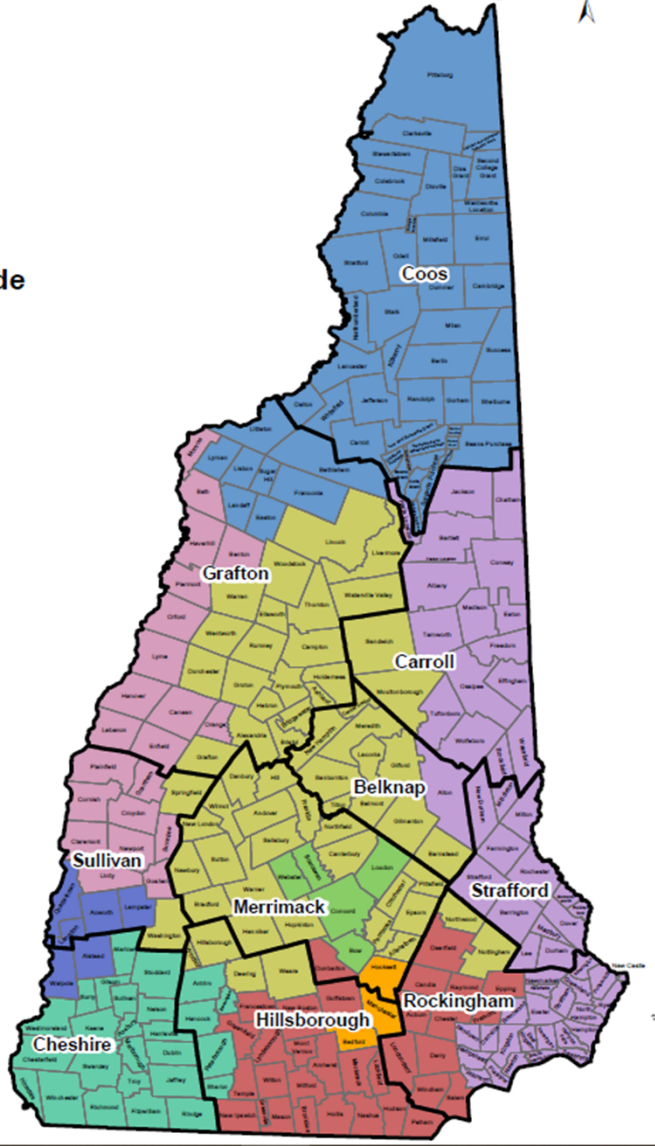


# Stimulant Prescriptions in Milligrams, by Active Ingredient (SFY 18-22) NH Residents Only



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- 031
- 032
- 033
- 034
- 035
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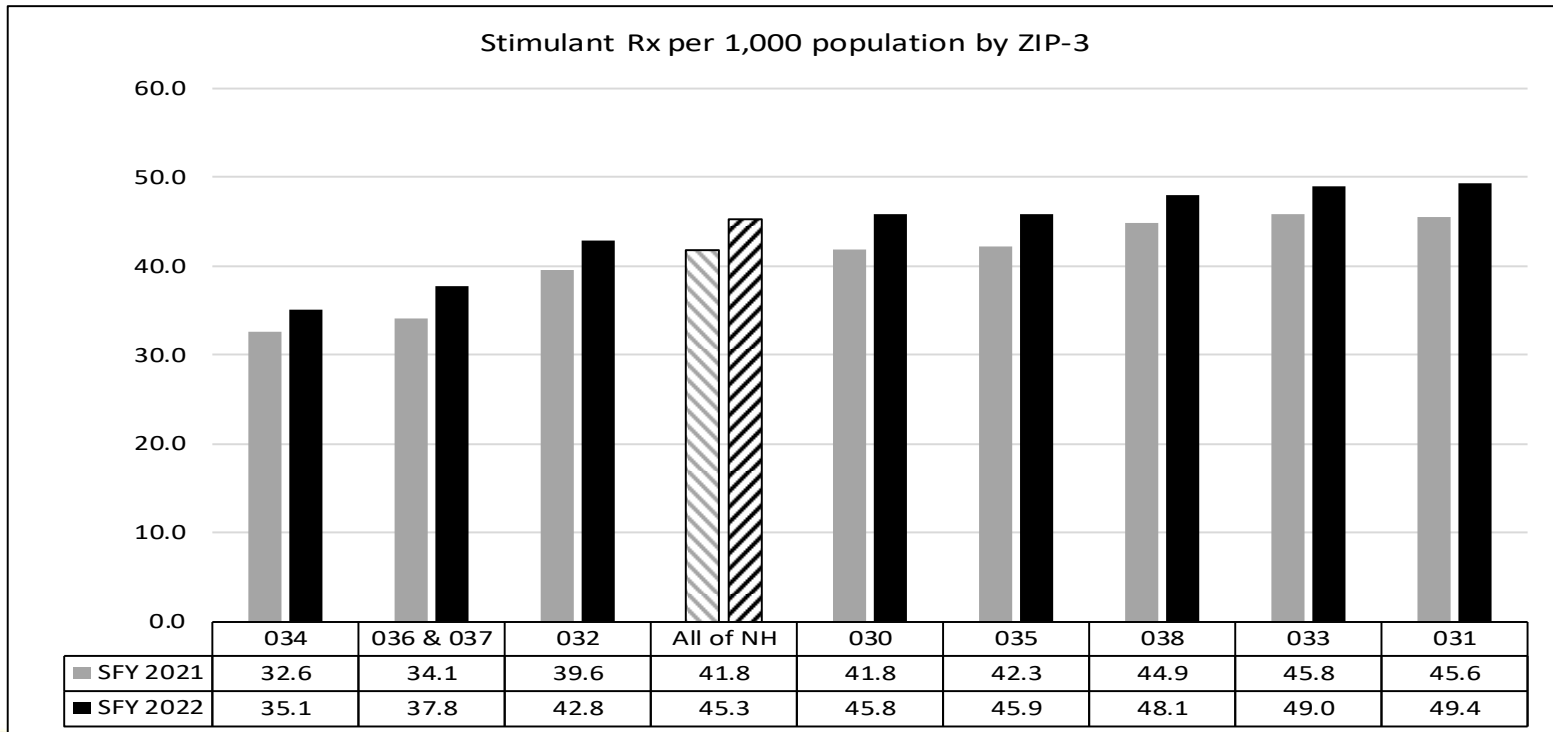
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# Stimulant Prescription Counts per 1,000 Residents, by ZIP-3

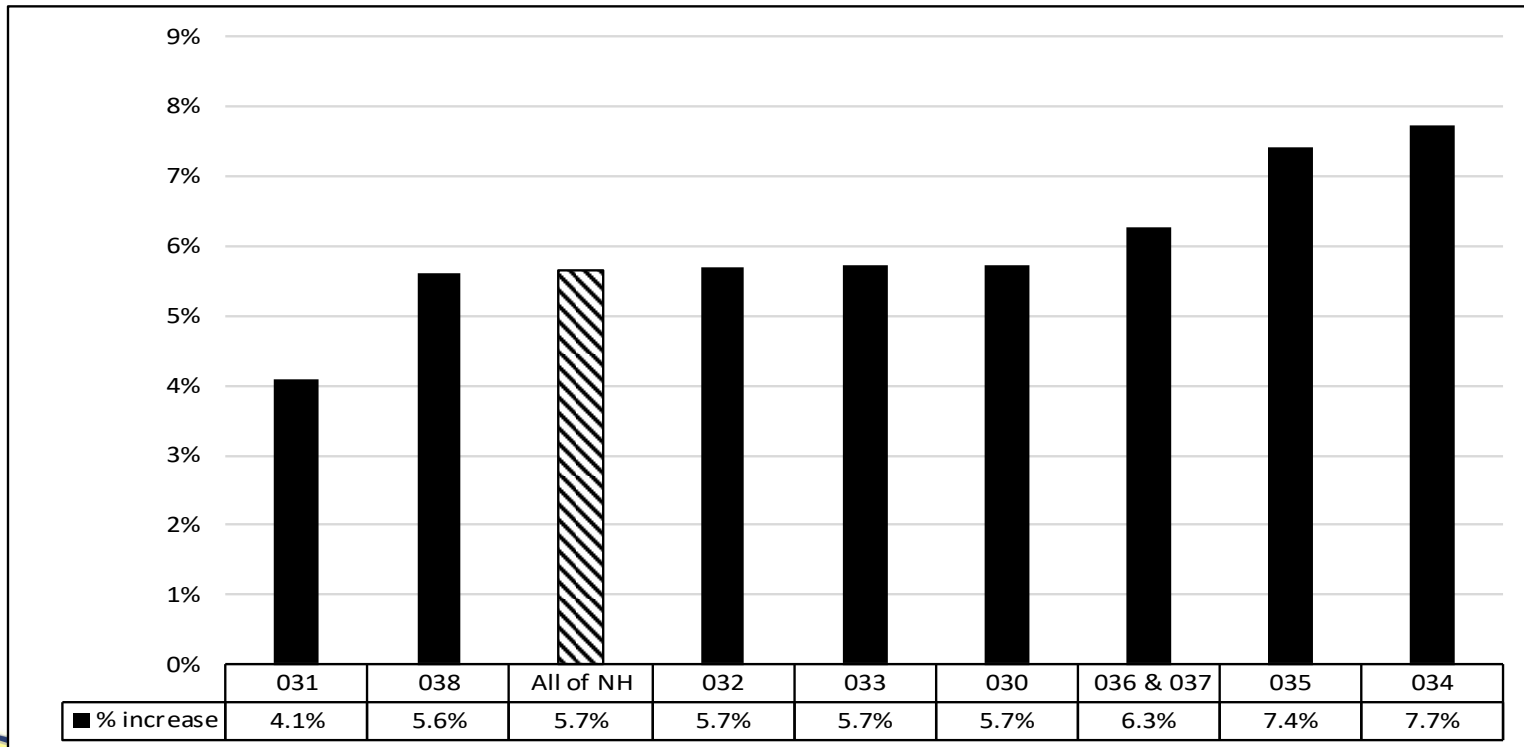
- Statewide (“All of NH”) had an increase of 8.4% from SFY 21 to SFY 22
- All ZIP-3 regions had an increase over this period
- ZIP-3 031 had the highest rate in both SFY 22 and second highest in SFY 21. That region is 9% higher than the statewide rate. ZIP-3 034 has the lowest rate and is 29% below the statewide rate, for both fiscal years





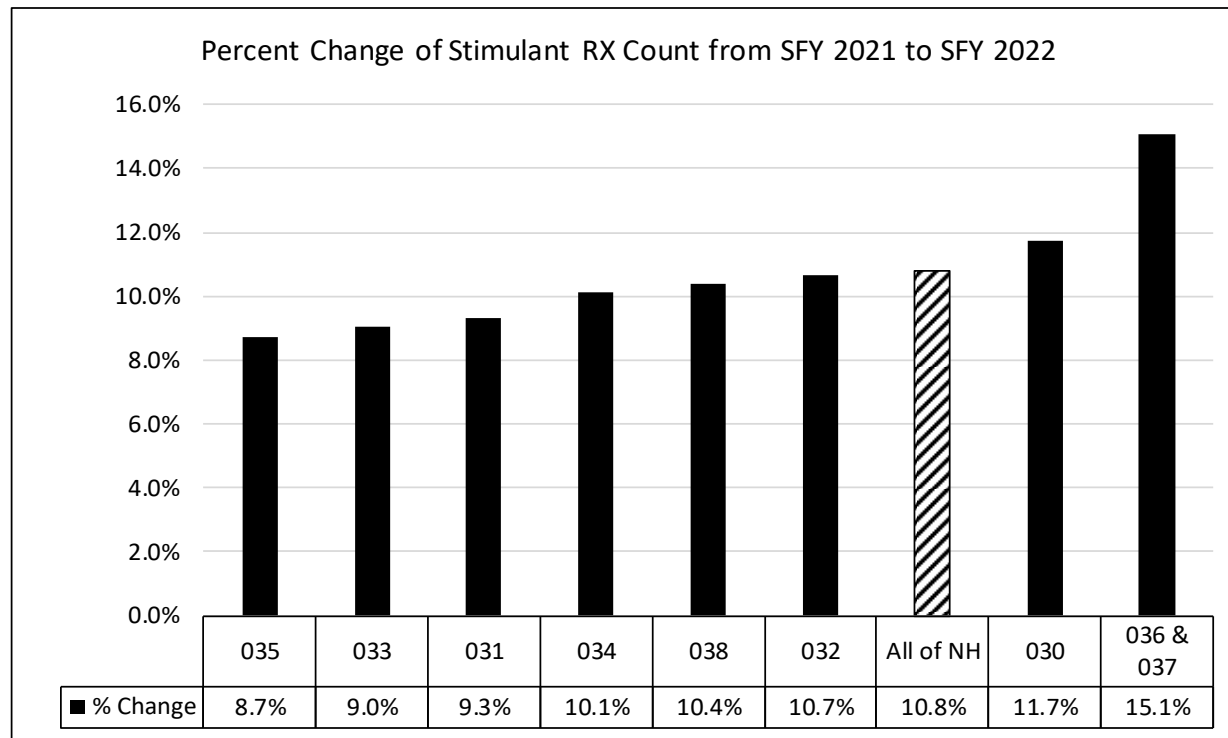
# NH Residents with Filled Stimulant Prescriptions, Percent Increase from SFY 21-22, by ZIP-3

- All ZIP-3 regions had an increase in the number of residents with a filled stimulant prescription. The calculation of percent uses the total distinct residents for each state fiscal year.
- Statewide (“All of NH”) the count increased 5.7%. ZIP-3 034 increased 7.7%, which is 37% greater than the statewide rate.



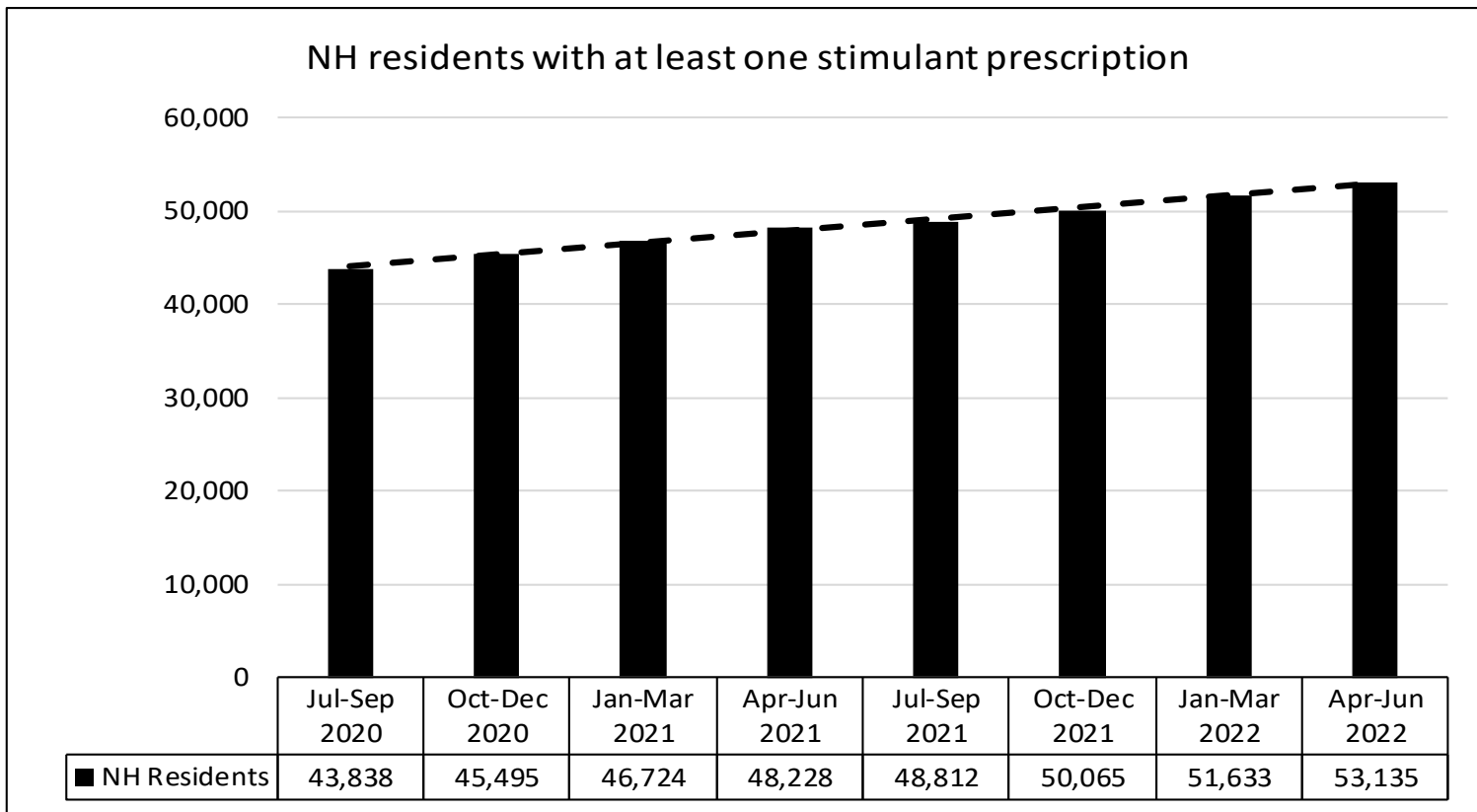
# Stimulant Prescription Counts, Percent Increase from SFY 21-22, by ZIP-3

- Statewide (“All of NH”) stimulant prescription counts have increased 10.8% between SFY 21 and SFY 22
- ZIP-3 036 & 037 had the highest percent increase of 15.1%, which is nearly one and a half times the statewide increase



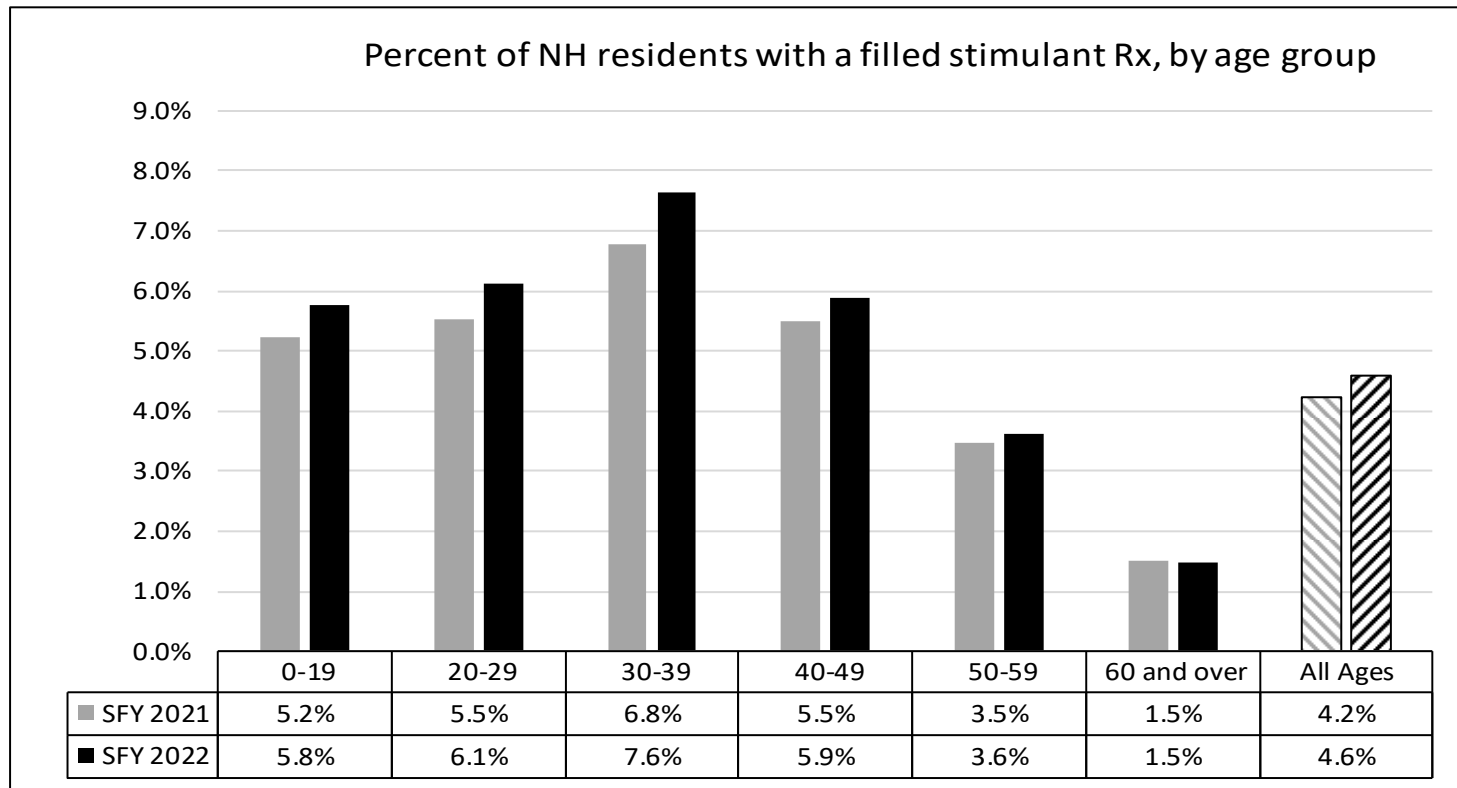
# NH Residents with Filled Stimulant Prescriptions

- There has been a 21% increase in the number of NH residents with at least one filled stimulant prescriptions over the 24 months from July 2020 through June 2022



# NH Residents with a Stimulant Prescription, by Age Group

- In SFY 22, there were 62,497 distinct NH residents of all ages with a stimulant prescription, equal to 4.6% of all NH residents
- All age groups had an increase



# CLINICAL ALERTS

# Clinical Alerts

## Clinical Alerts

- Notifications that appear on a patient's PDMP prescription history record that indicate that certain clinical thresholds have been met
- For informational purposes only; NOT intended to be a stand-alone indication of wrongdoing by the practitioner or patient
- Intended to help practitioners improve patient outcomes and to supplement, but not replace, the practitioner's clinical judgment
- More than one alert may be generated by a single prescription

### Clinical Alert #1 (Daily Active MME Threshold)

- An alert is triggered when a patient fills an opioid prescription(s) which contains a morphine milligram equivalent (MME) dose of greater than 100 MME on average per day\*

### Clinical Alert #2 (Opioid-Benzodiazepine Threshold)

- An alert is triggered when a patient is prescribed opioids and benzodiazepines with an overlap of at least one day\*

### Clinical Alert # 3 (Prescriber-Dispenser Threshold)

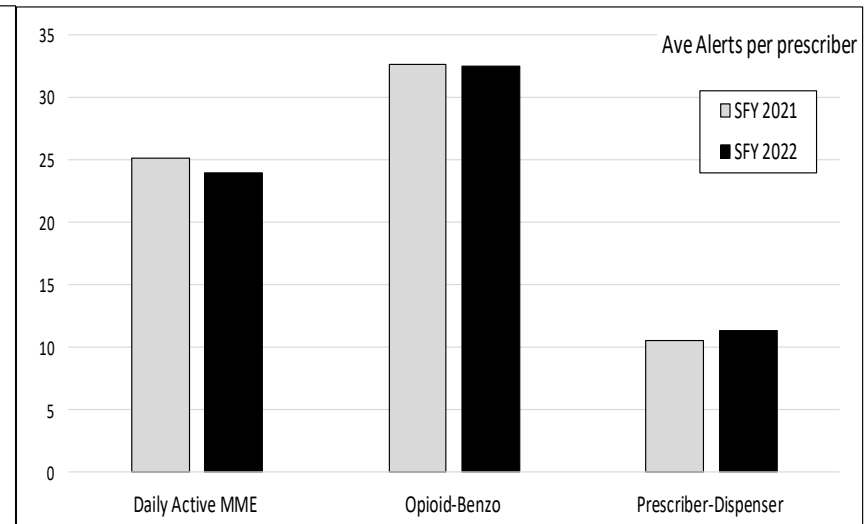
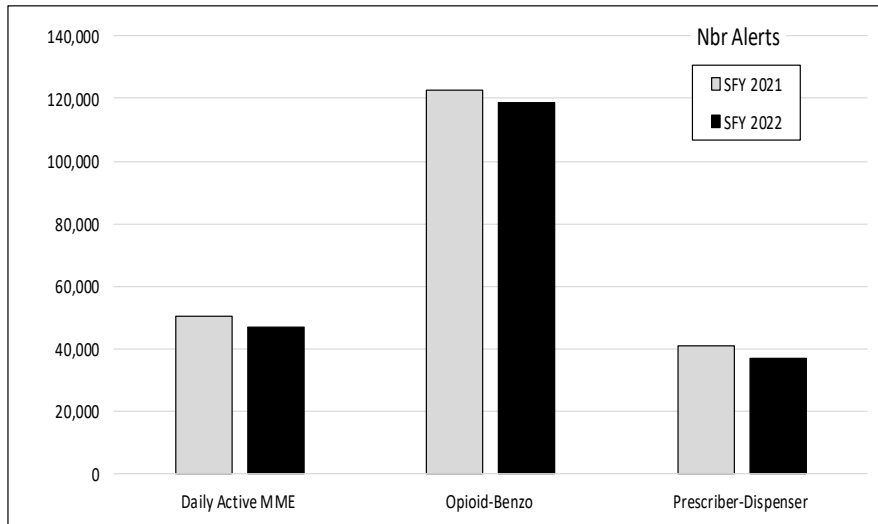
- An alert is triggered when a patient receives an opioid prescription from 3 different prescribers AND 3 different pharmacies within a 3-month period\*

\*Values recommended by the NH PDMP Advisory Council

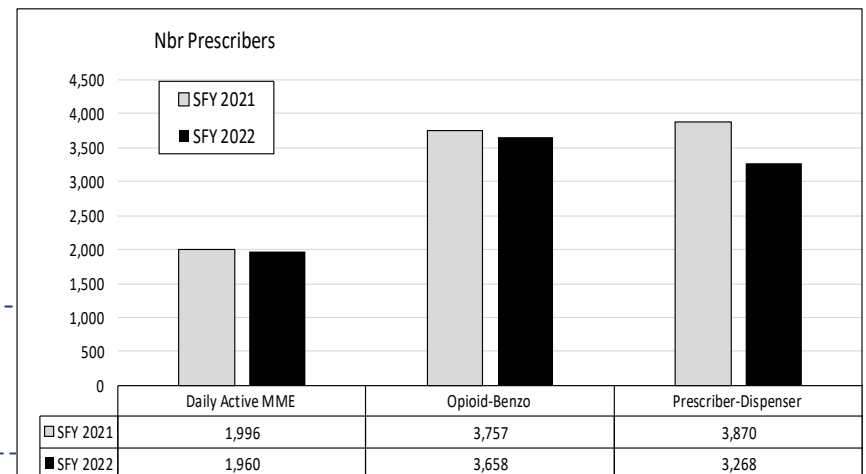
# Clinical Alerts Summary

Total number of alerts has decreased

Average number of alerts per prescriber has decreased



Number of prescribers receiving alerts has **decreased** for each alert (and in total from 4,661 down to 4,277)



# PRESCRIPTION AUDITING



# Prescription Auditing

## One (1) Auditor

- Works to assure PDMP data accuracy by auditing pharmacy dispensations for data errors and working towards fixing the errors, both individually and systemically
- Federal grant requirement
- SFY 2022 86 pharmacies audited (79 in SFY 2021). This included 67 chain pharmacies, 12 independent pharmacies, and 7 hospital pharmacies

## Minor Errors

- Missing/incorrect/misspelled patient phone number or address
- Incorrect days' supply

## Moderate Errors

- Missing species code
- Incorrect quantity dispensed/not indicating partial fill
- Incorrect date filled or date sold
- Missing/incorrect prescriber DEA number

## Major Errors

- Missing/incorrect date of birth
- Misspelled patient name (first and/or last name)
- Wrong patient
- Wrong drug; incorrect drug name; inactive rather than active ingredient reported for a compound
- RX not reported to the PDMP (non-compliance, wrong ASAP\* file format. Pharmacy vendor software error)
- Wrong prescriber
- Dispensing practitioner not dispensing prescriptions under their name

# Prescription Auditing – Error Type and Severity

## SFY 2021

- 79 pharmacies
- 759 prescriptions
- 150 data fields with errors

## SFY 2022

- 86 pharmacies
- 833 prescriptions
- 152 data fields with errors

Prescription recipient	Number of RX audited	Number of fields per RX	Number of potential error fields	Number of fields with errors	Field error percent
Human	763	16	12,208	108	<b>0.88%</b>
Animal	70	17	1,190	44	<b>3.70%</b>
<b>Totals</b>	<b>833</b>	<b>n/a</b>	<b>13,398</b>	<b>152</b>	<b>1.13%</b>

Human Prescriptions		
Error Type	Count of Errors	% of each error type
Minor	61	56%
Moderate	37	34%
Major	10	9%
<b>Total</b>	<b>108</b>	<b>100%</b>

Of the human prescriptions audited, **90%** of errors were minor or moderate (95% in SFY 2021)

Animal Prescriptions		
Error Type	Count of Errors	% of each error type
Minor	3	7%
Moderate	7	16%
Major	34	77%
<b>Total</b>	<b>44</b>	<b>100%</b>

Of the animal prescriptions audited, **77%** of errors were major (77% in SFY 2021)

# Transmission Type from Prescriber to Pharmacy

- During SFY 2021, "Transmission Type" was not a required data field to be uploaded. Two-thirds of all prescriptions uploaded to the PDMP did not have "Transmission Type" noted with the prescription
- HB 143 (2021 session) amended RSA 318 to require all controlled substance prescriptions to be transmitted electronically beginning January 1, 2022, with exemptions for veterinarians
- For the SFY 2022 transmission type audit (evaluating only Human prescriptions) the error rate for electronic prescription fields was only 0.9%.

Prescription Transmission type	Number of RX audited	Number of fields per RX	Number of potential error fields	Number of fields with errors	Field error percent
Electronic	605	16	9,680	86	0.9%
Other (fax, written, or	158	16	2,528	22	0.9%
<b>Totals</b>	<b>763</b>	<b>n/a</b>	<b>12,208</b>	<b>108</b>	<b>0.9%</b>

# Prescription Auditing – Corrections by Dispensers

## **Error Notification**

- Automated notification on daily uploads
- Manual notification by Auditor for audit findings requiring correction

## **Error Corrections**

- Required to be corrected within 72 hours of notification

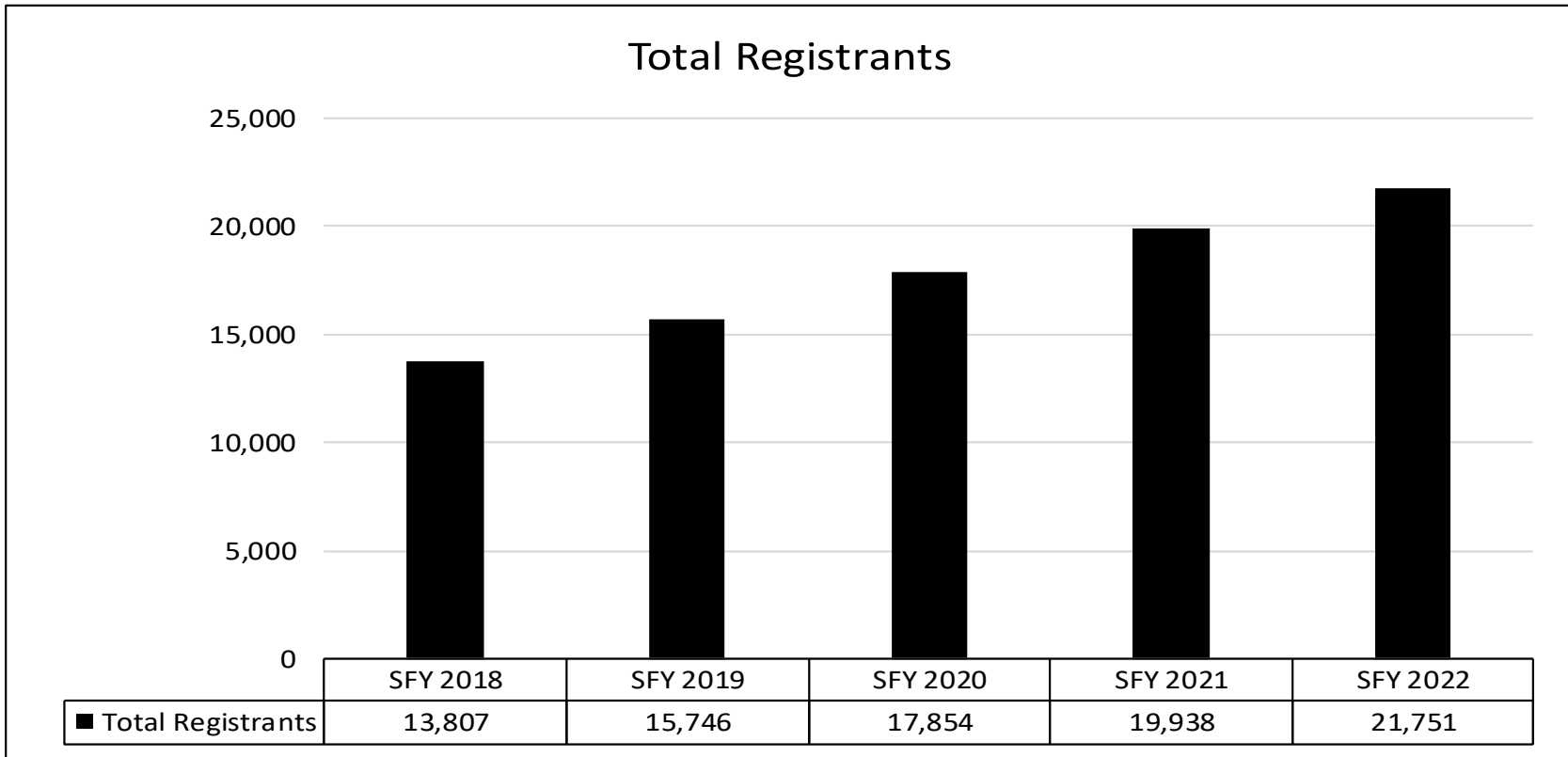
## **Extension Reasons**

- The pharmacist involved is unavailable during the error correction time period
- The pharmacist needs help from PDMP staff to make corrections, or
- The pharmacist needs further error clarification from the NH PDMP software vendor customer support (Bamboo Health)

# USER REGISTRATION

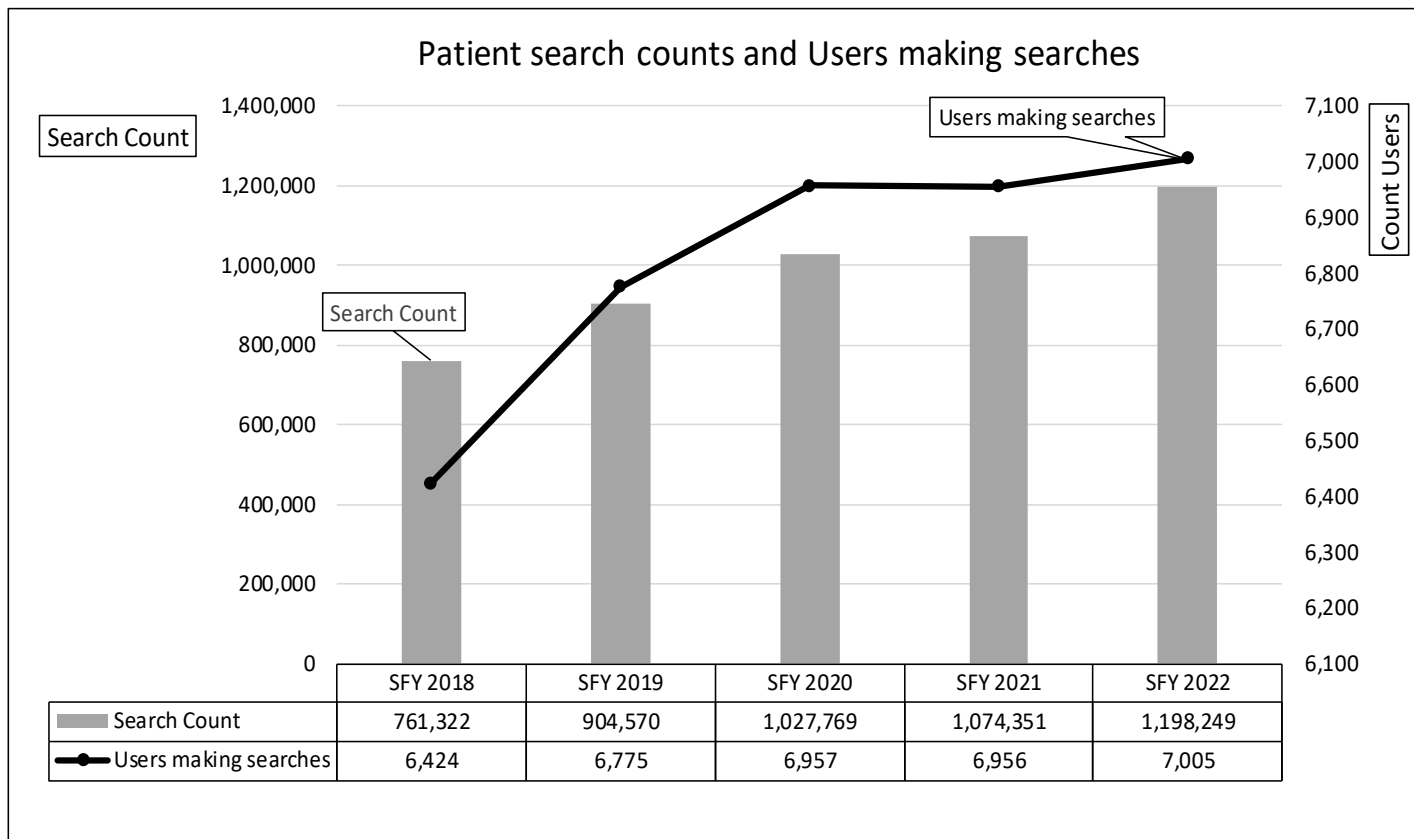
# Total PDMP Registrants (SFY 18-22)

- Registrants have increased 58% since SFY 2018
- The average percent increase for each state fiscal year has been 12%



# Patient Record Search Counts and Count of Users Making Searches

- Patient searches have increased each year
- Average number of searches per user has increased from 119 in SFY 2018 to 171 in SFY 2022.



# Future Enhancements

## PDMP Database Platform

- Mandatory registration compliance module
- Mandatory use compliance module
- Update to ASAP 4.2B dispensing standard

## Practitioner Utilization

- Continue to market Gateway EHR integration to NH healthcare entities to promote PDMP utilization by reducing time needed to query the PDMP by integrating PDMP data into existing clinical workflows

## Statutory Changes

- Improve the usability of PDMP data by allowing release of PDMP data by county (SB 34)



# 2022 Summary

## Utilization

- Registrant counts have increased
- Patient queries have increased

## Prescribing Trends

- Filled prescription counts for opioids have decreased, along with days' supply and average MME per prescription
- Filled prescription counts for stimulants have increased, along with the total number of milligrams of stimulants and the number of residents with a stimulant prescription in every region of the state
- Filled prescription counts for sedatives have decreased, but remain the highest count of these three drug types