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# New Hampshire Child and Teen Mental Health: An Analysis and Comparison of 2019-2020 Healthcare Claims Data

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### ***UNH Land, Water, and Life Acknowledgement***

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## Background

In April of 2022, the Institute for Health Policy and Practice (IHPP), in collaboration with the Department of Health and Human Services (DHHS) and the NH Pediatric Improvement Partnership (NH PIP), published the first version of the Mental Health Care Access in Pediatrics (MCAP) report, *New Hampshire Children and Teens Experiencing Mental Health Disorders: An Analysis of 2019 Healthcare Claims Data*, (<https://scholars.unh.edu/ihpp/142/>). This report builds on the work of that publication, providing an analysis that explores care patterns in 2020, at the beginning of the 2020 COVID-19 pandemic. This update also includes an additional section focused on the providers of mental health care based on medical and pharmaceutical claims data.

## Purpose

The NH MCAP program is a collaborative effort of the NH Department of Health and Human Services and the NH Pediatric Improvement Partnership housed at the UNH Institute for Health Policy and Practice. Funded by the Health Resources and Services Administration, the focus of MCAP is to promote behavioral health integration in pediatric primary care. MCAP provides 1) training to pediatric and family practice clinicians in assessing and treating common pediatric mental health conditions through an annual Project ECHO® learning series, 2) clinician-to-clinician teleconsultation services, and 3) an annually updated referral directory of pediatric mental/behavioral health services in New Hampshire. To inform its programming, MCAP funded this analysis of 2019-2020 pediatric medical and pharmacy claims data from commercial and NH Medicaid payers. Specifically, MCAP sought to examine health care claims for NH's pediatric population to provide a descriptive analysis of:

1. The burden of pediatric mental health conditions as defined by the percentage of children under age 18 with mental health conditions,
2. Mental health conditions and comorbidities with other mental health conditions,
3. Which providers, by taxonomy, are providing mental health care to children under age 18 with a mental health condition,
4. Which providers, by taxonomy, are prescribing select mental health pharmaceutical classes to children under age 18, and
5. Selected mental health pharmaceutical classes among children under age 18 with a mental health condition.

## Data

Data from the New Hampshire Comprehensive Healthcare Information System (NH CHIS), NH’s All-Payer Claims Database (APCD), and NH DHHS’s Enterprise Business Intelligence (EBI) Data System were analyzed. Information about NH CHIS can be found on the website: <https://nhchis.com/>. The table below outlines the data and timeframes used in analysis:

Data	Payer and Source	Timeframe	Notes
Medical claims and eligibility	Commercial (NHCHIS)	January 2016 – December 2020	The analysis is limited to the top commercial medical insurers: Anthem, Cigna, Harvard Pilgrim, Tufts, Health Plans, Inc., Matthew Thornton, and Tufts Health Freedom. These carriers generally include more than 80% of the commercial medical claims in NHCHIS.
Medical claims and eligibility	NH Medicaid (NH DHHS EBI)	January 2016 – December 2020	MCO (Well Sense, NH Healthy Families, AmeriHealth) and FFS Claims
Pharmacy claims and eligibility	Commercial (NHCHIS)	January 2016 – December 2020	The analysis is limited to the top commercial pharmacy insurers: Cigna, Anthem, Harvard Pilgrim, Tufts, Tufts Health Freedom, Caremark, Matthew Thornton, and Express Scripts. These carriers generally include more than 80% of the commercial pharmacy claims in NHCHIS.
Pharmacy claims and eligibility	NH Medicaid (NH DHHS EBI)	January 2016 – December 2020	MCO (Well Sense, NH Healthy Families, AmeriHealth) and FFS Claims

*NOTE: In March 2016, the Supreme Court ruled that Liberty Mutual, as a self-insured employer, can choose not to submit their health claims data to Vermont’s all-payer claims database. This decision resulted in many commercial carriers opting not to submit the self-insured business to the NH CHIS. Therefore, please use caution in interpreting analysis/measures derived from data after March 2016 because there are fewer employer plans submitting data after March 2016. For more information, please see [https://www.supremecourt.gov/opinions/15pdf/14-181\\_5426.pdf](https://www.supremecourt.gov/opinions/15pdf/14-181_5426.pdf).*

### Criteria for Analytic Data Set

- Members with at least 9 months of continuous enrollment in commercial or NH Medicaid insurance policies that originate in NH
- Commercial members ages 0-17
- NH Medicaid members ages 0-17

### Note on Race and Ethnicity

At this time, data are not analyzed by race and ethnicity. The examination and elimination of health disparities are important; however, at this time, race and ethnicity fields are not available/reliable in the claims data and therefore not included in the analysis.

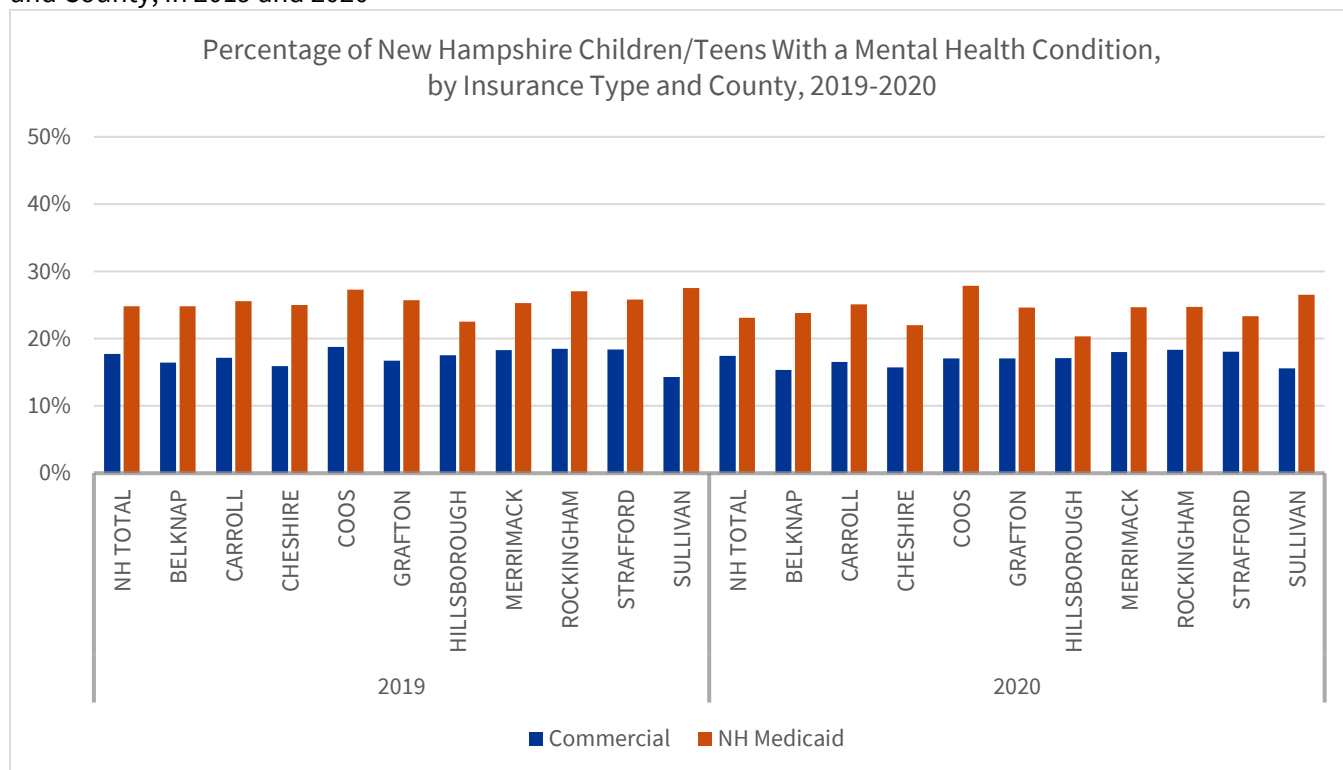
## Chapter 1: Analysis of Pediatric Mental Health Conditions

To understand the scope and nature of pediatric mental health conditions diagnosed and treated in New Hampshire, medical claims for calendar years 2019 and 2020 were examined to produce measures of disease burden (eg, percentage of children with a mental health condition). Medical claims for the period January 2016 to December 2020 were also examined to identify trends in the burden of mental health conditions over time. Analysis was done by type of payer (commercial and NH Medicaid), age band, and county to determine any variation that may be related to characteristics of the population. For a list of ICD 10 diagnosis codes used for analysis, see **Appendix D**.

### All Mental Health Conditions

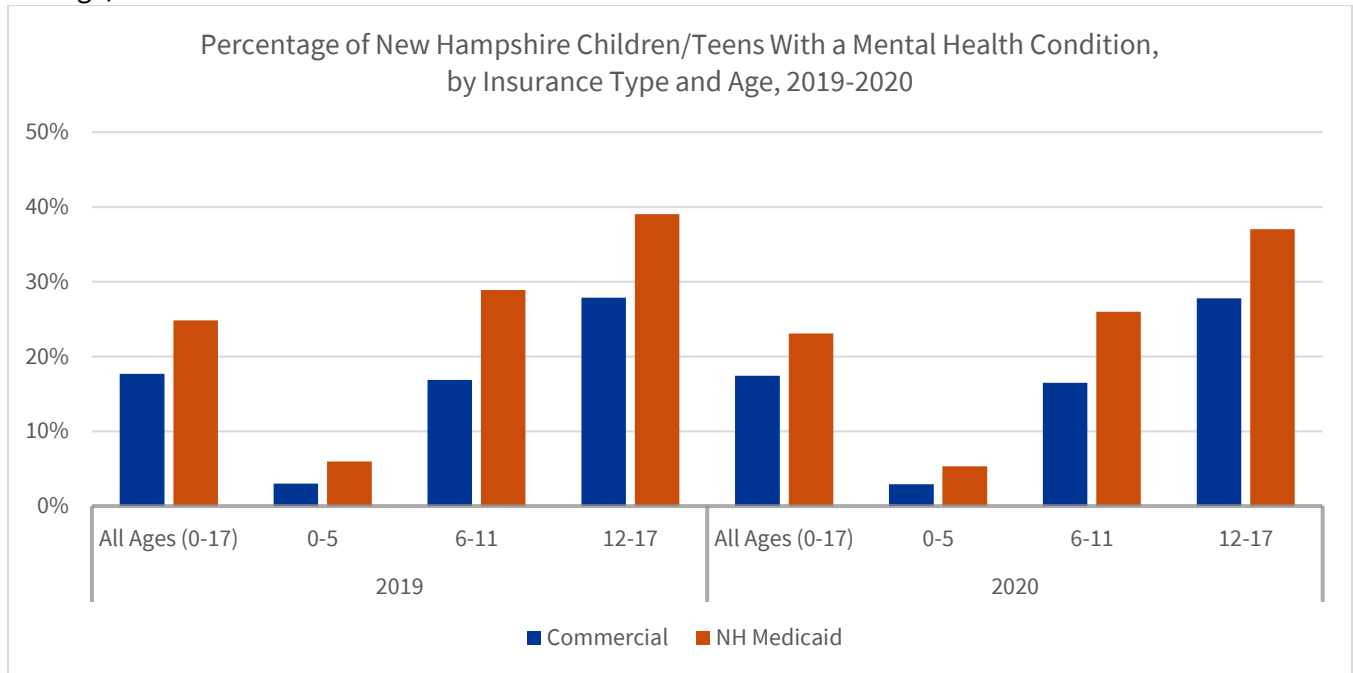
To better understand the disease burden of mental health conditions among NH children and teens, claims data were first analyzed to estimate the percentage of children and teens who had any type of mental health condition, as determined by diagnosis codes, in 2019 and 2020.\*

**Figure 1.** Percentage of New Hampshire Children/Teens With a Mental Health Condition, by Insurance Type and County, in 2019 and 2020



\* It is important to note that for this analysis, a mental health disorder diagnosis code was not required to be in the primary diagnosis location on a claim. Claims were included if one of the selected mental health disorder diagnosis codes was on a service line for the claim; this is the approach throughout this report, unless otherwise stated.

**Figure 2.** Percentage of New Hampshire Children/Teens With a Mental Health Condition, by Insurance Type and Age, in 2019 and 2020



### Results for All Mental Health Conditions

#### Commercial

In 2019, 18% of commercially insured NH children had a mental health condition, as shown in **Figure 1**. County-level percentages during this year ranged from 14% in Sullivan County to 19% in Coos County. As shown in **Figure 2**, variation also existed across age groups, as 3% of children ages 0 to 5, 17% of those ages 6 to 11, and 28% of those ages 12 to 17 with commercial insurance had at least 1 claim for a mental health condition. In 2020, the total percentage of commercially insured children who had a mental health condition was 17% and ranged from 15% in Belknap County to 18% in Merrimack, Rockingham, and Strafford Counties; see **Table A1** in **Appendix A** for more detail. Variation across age groups remained stable; see **Table A2** in **Appendix A** for more detail.

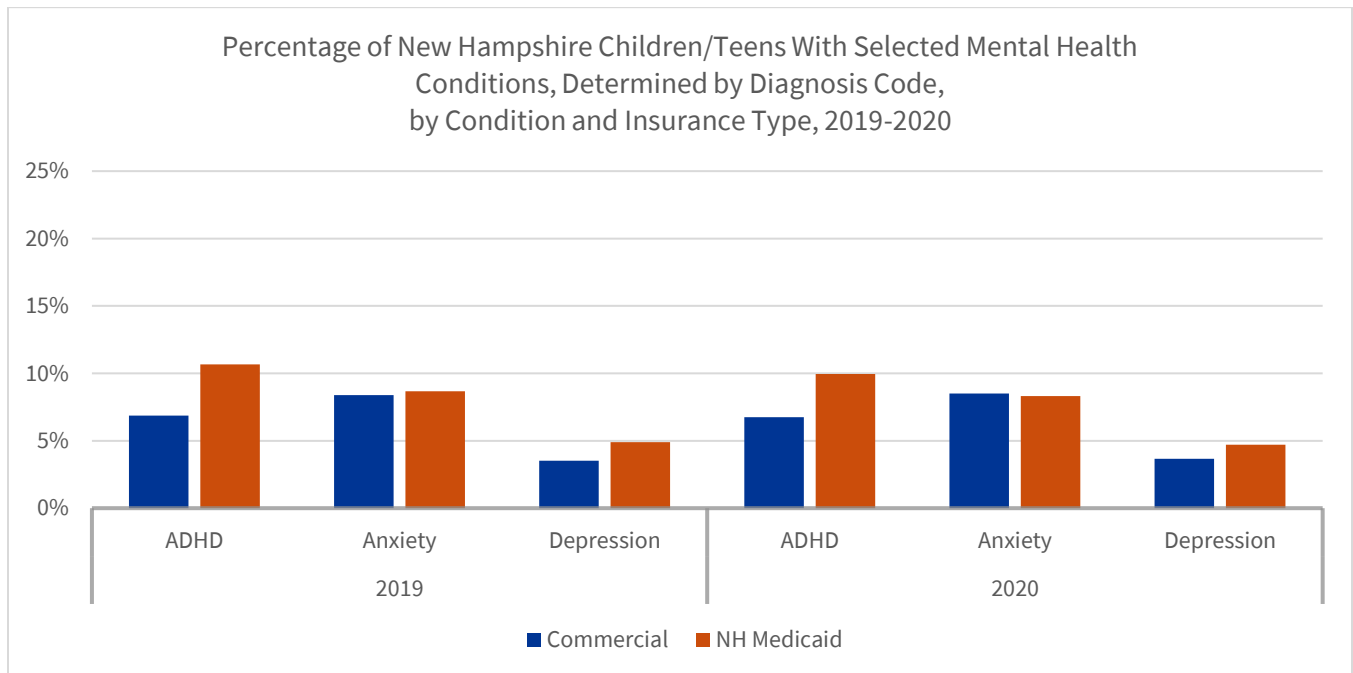
#### NH Medicaid

In 2019, 25% of children insured by NH Medicaid had a mental health condition, ranging from 23% in Hillsborough County to 28% in Sullivan County. Variation also existed across age groups, as 6% of children ages 0 to 5, 29% of those ages 6 to 11, and 39% of those ages 12 to 17 insured by NH Medicaid had at least 1 claim for a mental health condition. The total percentage of children insured by NH Medicaid who had a mental health condition in 2020 was 23% and ranged from 20% in Hillsborough County to 28% in Coos County. Age group variation changed slightly, as 5% of children ages 0 to 5, 26% of those ages 6 to 11, and 37% of those ages 12 to 17 insured by NH Medicaid had at least 1 claim for a mental health condition.

### Selected Mental Health Conditions by Diagnosis Code

Claims data were analyzed to estimate the percentage of NH children and teens with selected mental health conditions: ADHD, anxiety, and/or depression, as determined by diagnosis code on the claim.

**Figure 3.** Percentage of New Hampshire Children/Teens With Selected Mental Health Conditions (ADHD, Anxiety, and/or Depression), Determined by Diagnosis Code, by Condition and Insurance Type, in 2019 and 2020



### Results for Selected Mental Health Conditions by Diagnosis Code

#### Commercial

As illustrated by **Figure 3**, in 2019, 7% of the commercially insured NH children had an ADHD diagnosis, 8% had an anxiety diagnosis, and 4% had a depression diagnosis. Examination of county-level percentages for these 3 mental health conditions revealed similar patterns to state-level percentages. The percentage of children with an ADHD diagnosis ranged from 5% in Sullivan County to 8% in Coos County; anxiety diagnosis rates were similar, within 2%, across all counties; depression diagnosis rates were similar, within 1%, across all counties; see **Table A3, A5, and A7** in **Appendix A** for more detail. These 3 mental health conditions were also examined by age group. The percentage of children with an ADHD diagnosis ranged from 0% in 0- to 5-year-olds to 10% in 12- to 17-year-olds; anxiety diagnoses ranged from 1% in 0- to 5-year-olds to 15% in 12- to 17-year-olds; depression diagnoses ranged from 0% in 0- to 5-year-olds to 8% in 12- to 17-year-olds; see **Table A4, A6, and A8** in **Appendix A** for more detail.

In 2020, these percentages among commercially insured children remained stable. The percentage of children with an ADHD diagnosis ranged from 5% in Belknap and Sullivan Counties to 8% in Coos and



Rockingham Counties; anxiety diagnosis rates remained stable, within 2%, across all counties; depression diagnosis rates remained stable, within 1%, across all counties. Age group variation remained consistent from the year prior.

### *NH Medicaid*

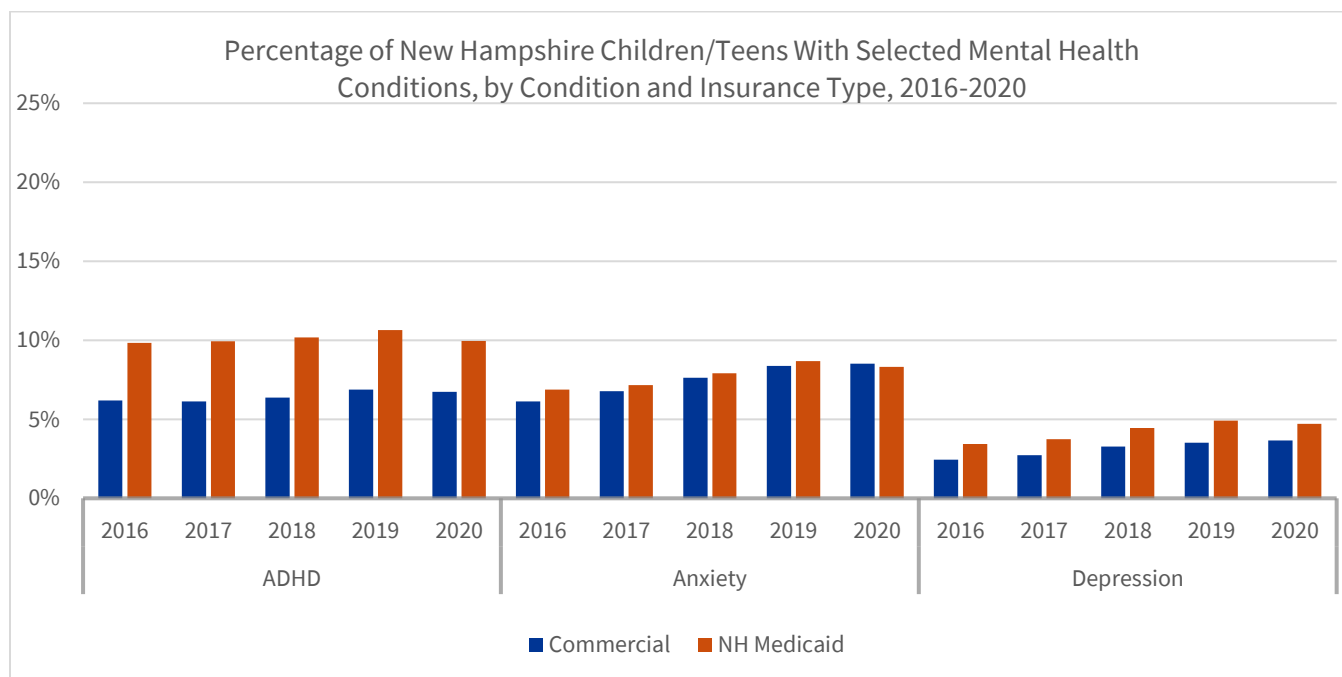
In 2019, 11% of the children insured by NH Medicaid had an ADHD diagnosis, 9% had an anxiety diagnosis, and 5% had a depression diagnosis. An examination of county-level percentages for these 3 mental health conditions among children insured by NH Medicaid revealed similar patterns to state-level percentages. The percentage of children with an ADHD diagnosis ranged from 10% in Belknap, Carroll, Hillsborough, and Merrimack Counties to 13% in Coos and Rockingham Counties; anxiety diagnoses ranged from 7% in Hillsborough County to 11% in Rockingham County; depression diagnoses ranged from 4% in Coos, Hillsborough, and Merrimack Counties to 6% in Rockingham County. These 3 conditions were also examined by age group. The percentage of children with an ADHD diagnosis ranged from 1% in 0- to 5-year-olds to 16% in 12- to 17-year-olds; anxiety diagnoses ranged from 1% in 0- to 5-year-olds to 17% in 12- to 17-year-olds; depression diagnoses ranged from 0% in 0- to 5-year-olds to 13% in 12- to 17-year-olds.

In 2020, these percentages among children insured by NH Medicaid also remained consistent. The percentage of children with an ADHD diagnosis ranged from 9% in Belknap, Hillsborough, and Merrimack Counties to 14% in Coos County; anxiety diagnosis rates remained the same as 2019; depression diagnosis rates ranged from 4% in Belknap, Hillsborough, and Strafford Counties to 6% in Rockingham County. Age group variation remained stable, with 1% variation for each age band, from the year prior.

### Selected Mental Health Conditions, 2016-2020

Further analysis of claims data was conducted to examine the historical pattern in the percentage of children and teens with diagnoses of ADHD, anxiety, and depression from 2016 to 2020.

**Figure 4.** Percentage of New Hampshire Children/Teens With Selected Mental Health Conditions (ADHD, Anxiety, and/or Depression), by Condition and Insurance Type, From 2016 to 2020



### Results for Selected Mental Health Conditions, 2016-2020

#### Commercial

As reflected in **Figure 4**, the percentage of commercially insured NH children with each of the 3 selected mental health conditions (ADHD, anxiety, and depression) was similar over the 5 years from 2016 to 2020. The percentage of children with an ADHD diagnosis increased from 6% to 7%, anxiety diagnosis increased from 6% to 9%, and depression diagnosis increased from 2% to 4% over the 5 years; see **Table A9** in **Appendix A** for more detail.

#### NH Medicaid

Among children insured by NH Medicaid, the percentage with each of the 3 mental health conditions varied only slightly from 2016 to 2020. Over the 5 years from 2016 to 2020, the percentage of children with an ADHD diagnosis remained stable at 10%, anxiety diagnosis increased from 7% to 8%, and depression diagnosis increased from 3% to 5%.

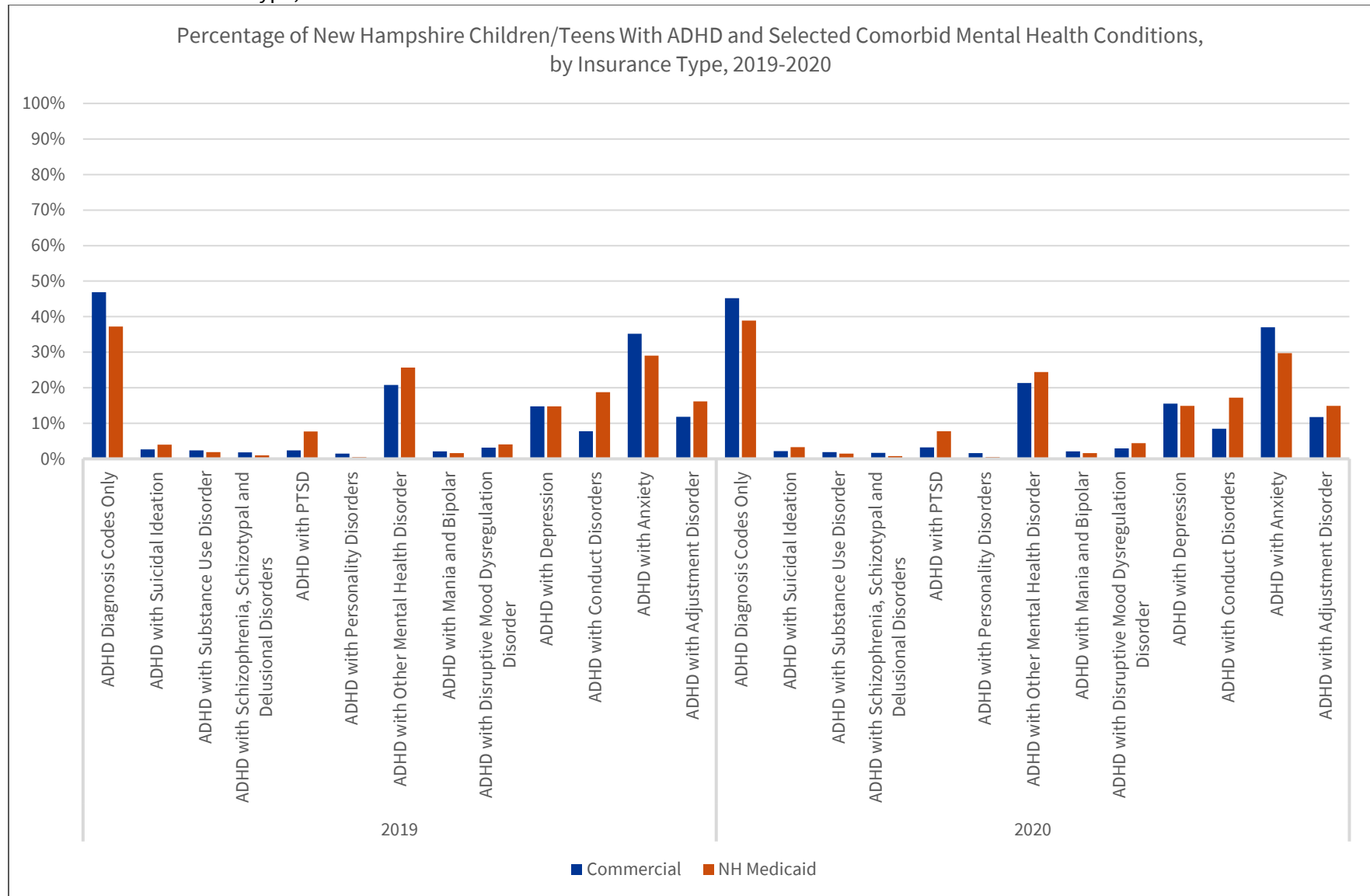
## Chapter 2: Analysis of Pediatric Mental Health Conditions and Comorbidities with Other Mental Health Conditions

The scope and impact of mental health conditions and comorbidities with other mental health conditions on NH children and teens were examined through medical claims for the period January 2019 to December 2020 (eg, rate of children and teens with a specific mental health condition and comorbidities with other mental health conditions). Analysis was done by type of payer (commercial and NH Medicaid), age band, and county. For a list of ICD 10 diagnosis codes used for analysis, see **Appendix D**.

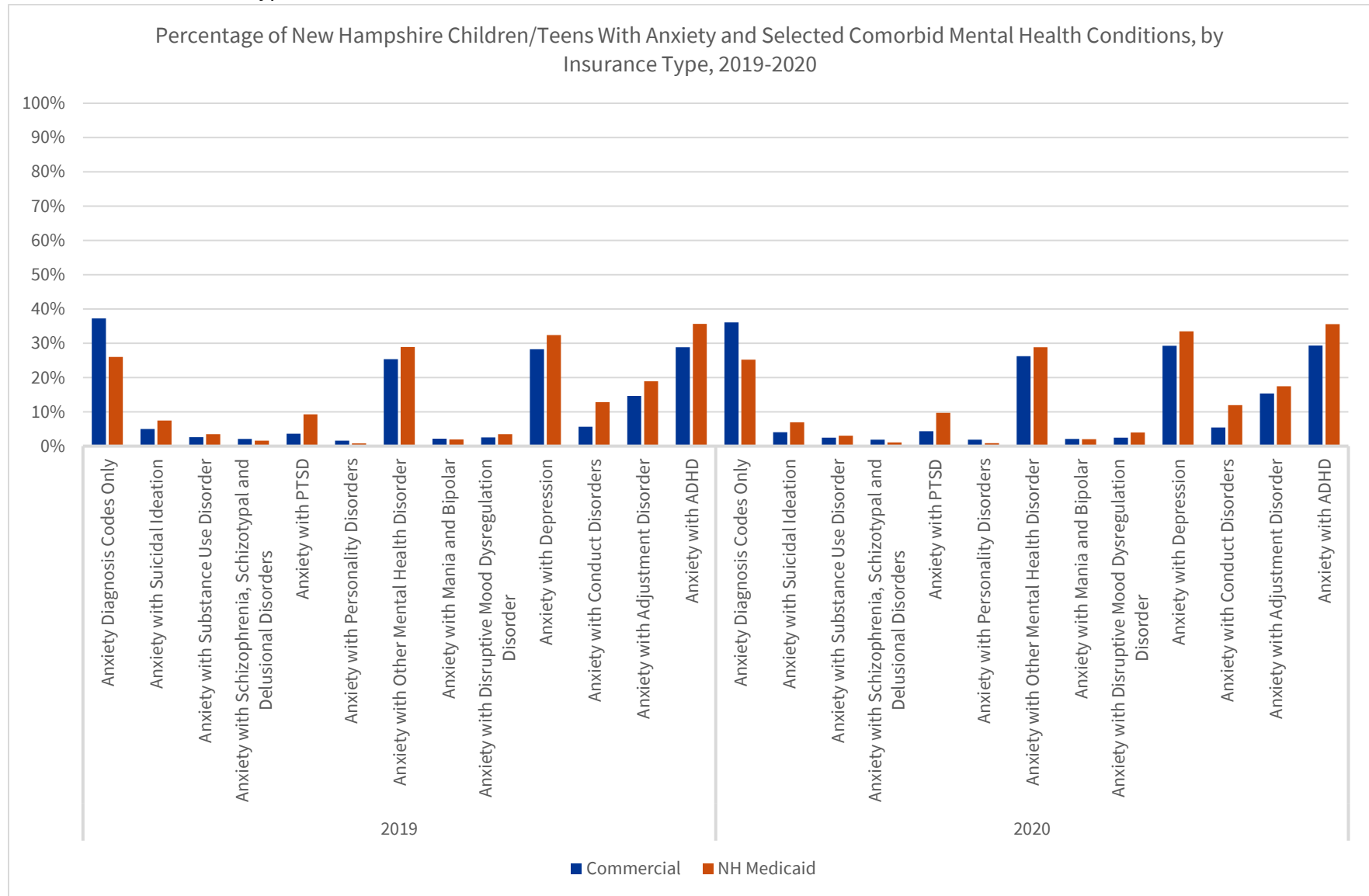
### Mental Health Conditions and Comorbidities with Other Mental Health Conditions

The frequency of mental health conditions and comorbidities with other mental health conditions in NH children and teens with ADHD, anxiety, and depression, were determined by claims analysis, which identified the percentage of children and teens with each of these 3 diagnoses and comorbid mental health diagnoses during 2019 and 2020.

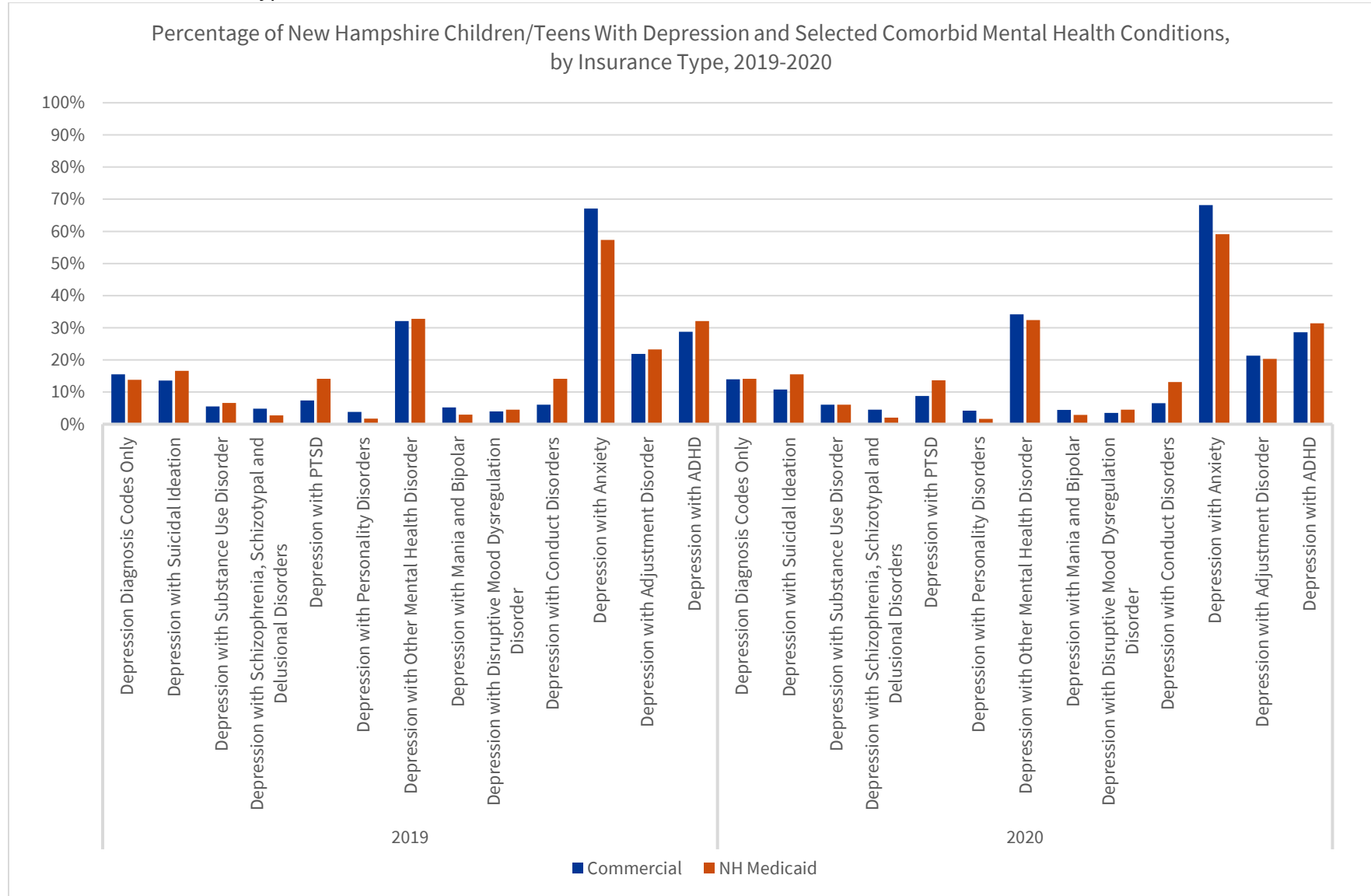
**Figure 5.** Percentage of New Hampshire Children/Teens Diagnosed With ADHD and Comorbid Mental Health Diagnoses, by Comorbid Condition and Insurance Type, in 2019 and 2020



**Figure 6.** Percentage of New Hampshire Children/Teens Diagnosed With Anxiety and Comorbid Mental Health Diagnoses, by Comorbid Condition and Insurance Type, in 2019 and 2020



**Figure 7.** Percentage of New Hampshire Children/Teens Diagnosed With Depression and Comorbid Mental Health Diagnoses, by Comorbid Condition and Insurance Type, in 2019 and 2020



## Results for Mental Health Conditions and Comorbidities with Other Mental Health Conditions

### *Commercial*

As shown in **Figure 5**, in both 2019 and 2020, the most frequently occurring comorbid mental health diagnoses among commercially insured NH children with an ADHD diagnosis were anxiety, other mental health disorder, depression, adjustment disorder, and conduct disorder. In 2019, 47% of commercially insured children had a diagnosis of ADHD only, compared to 45% in 2020. Specifically, ADHD with anxiety increased by 2% and ADHD with depression increased by 1% among this population; see **Table B1** in **Appendix B** for more detail.

Likewise, as displayed in **Figure 6**, in 2019 and 2020, the most frequently occurring comorbid mental health diagnoses among the commercial pediatric population with an anxiety diagnosis were ADHD, depression, other mental health disorder, adjustment disorder, and conduct disorder. The percentage of commercially insured children with a diagnosis of ADHD only was 37% in 2019 and 36% in 2020. There was little change from 2019 to 2020. Anxiety with conduct disorder decreased by 1%, while anxiety with depression and anxiety with other mental health disorder each increased by 1%; see **Table B2** in **Appendix B** for more detail.

Lastly, as shown in **Figure 7**, in both 2019 and 2020, the most frequently occurring comorbid mental health diagnoses among the commercial pediatric population with a depression diagnosis were anxiety, other mental health disorder, ADHD, adjustment disorder, and suicidal ideation. The percentage of commercially insured children with a diagnosis of depression only was 15% in 2019 and 14% in 2020. Over the 2 years, depression with anxiety disorder increased by 1% and depression with other mental health disorder increased by 2%, while depression with adjustment disorder decreased by 1% and depression with suicidal ideation decreased by 3%; see **Table B3** in **Appendix B** for more detail.

### *NH Medicaid*

Similar to the commercial population, the most frequently occurring comorbid mental health diagnoses among children insured by NH Medicaid with an ADHD diagnosis were anxiety, other mental health disorder, conduct disorder, adjustment disorder, and depression, in both 2019 and 2020. The percentage of these children with an ADHD diagnosis only was 37% in 2019 and 39% in 2020. The percentage of children with depression and anxiety increased by 1% in 2020, depression with adjustment disorder decreased by 1%; depression with other mental health disorder and conduct disorder each decreased by 2%.

Among children insured by NH Medicaid, for those with an anxiety diagnosis, the most frequently occurring comorbid mental health diagnoses mirrors those of the commercial pediatric population (ie, ADHD, depression, other mental health disorder, adjustment disorder, and conduct disorder). In 2019 and 2020, the percentage of children insured by NH Medicaid with an anxiety diagnosis only was 26% to 25%, respectively. The percentage of children with anxiety and depression increased by 2%, while the percentage with anxiety and adjustment disorder and conduct disorder each decreased by 1%.

Among children insured by NH Medicaid, for those with a depression diagnosis, the most frequently occurring comorbid mental health diagnoses also mirror those of the commercial pediatric population (ie, anxiety, other mental health disorder, ADHD, adjustment disorder, and suicidal ideation). From 2019 to 2020, the percentage of the pediatric NH Medicaid population with a diagnosis of depression only remained unchanged at 14%. The percentage of children insured by NH Medicaid with depression with anxiety increased by 2%, while the percentage with depression and other mental health disorder and ADHD each decreased by 1%, the percentage with depression and suicidal ideation decreased by 2%, and the percentage with depression and adjustment disorder decreased by 3%.



## Chapter 3: Analysis of Pediatric Mental Health Care Providers and Mental Health Pharmaceutical Classes

To further understand the scope of mental health care utilization among NH children and teens, medical claims for the calendar years 2019 and 2020 were examined to determine which providers, by provider taxonomy, were providing mental health care to the pediatric population. In addition, to better understand the scope of mental health prescribing patterns for the NH pediatric population, pharmacy claims for calendar years 2019 and 2020 were examined to determine which providers, by provider taxonomy, were prescribing to NH children and teens. Analysis of prescriptions, by total scripts, of select mental health pharmaceutical classes prescribed are also included.<sup>†</sup> Analysis was done by type of payer (commercial and NH Medicaid).

### Providers of Pediatric Mental Health Care

Medical claims were analyzed to determine which providers, by provider taxonomy, were providing mental health to NH children and teens with a mental health condition (as their primary diagnosis on their medical claim).<sup>‡</sup>

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<sup>†</sup> It is important to note that a drug fill on a pharmacy claim does not indicate medication adherence.

<sup>‡</sup> In this specific analysis, mental health diagnosis was required to be in the primary diagnosis location on the medical claim.

**Table 1.** Percentage of Total Visits for Commercially Insured New Hampshire Children/Teens With At Least 1 Mental Health Condition (Primary Diagnosis) by Medical Provider Taxonomy, in 2019 and 2020

<b>Provider Taxonomy and Specialization</b>	<b>Percentage of Total Visits for Commercially Insured New Hampshire Children/Teens With At Least 1 Mental Health Condition (Primary Diagnosis) by Medical Provider Taxonomy, 2019</b>	<b>Percentage of Total Visits for Commercially Insured New Hampshire Children/Teens With At Least 1 Mental Health Condition (Primary Diagnosis) by Medical Provider Taxonomy, 2020</b>
Counselor Mental Health	24.4%	25.5%
Social Worker Clinical	17.1%	15.8%
Clinic/Center Mental Health (Including Community Mental Health Center)	6.3%	6.4%
Pediatrics	6.1%	6.2%
Psychologist Clinical	6.3%	5.8%
Psychiatry & Neurology Psychiatry	5.1%	5.0%
Psychologist	3.9%	4.2%
Social Worker	3.8%	3.6%
Psychiatry & Neurology Child & Adolescent Psychiatry	3.4%	3.2%
Marriage & Family Therapist	2.1%	2.8%

**Table 2.** Percentage of Total Visits for New Hampshire Children/Teens Insured by NH Medicaid With At Least 1 Mental Health Condition (Primary Diagnosis) by Medical Provider Taxonomy, in 2019 and 2020

<b>Provider Taxonomy and Specialization</b>	<b>Percentage of Total Visits for New Hampshire Children/Teens Insured by NH Medicaid With At Least 1 Mental Health Condition (Primary Diagnosis) by Medical Provider Taxonomy, 2019</b>	<b>Percentage of Total Visits for New Hampshire Children/Teens Insured by NH Medicaid With At Least 1 Mental Health Condition (Primary Diagnosis) by Medical Provider Taxonomy, 2020</b>
Clinic/Center Mental Health (Including Community Mental Health Center)	41.1%	46.7%
Clinic/Center Adolescent and Children Mental Health	9.4%	14.4%
Community/Behavioral Health	10.6%	8.3%
Counselor Mental Health	11.9%	8.2%
Foster Care Agency	3.6%	6.1%
Social Worker Clinical	6.8%	5.0%
Pediatrics	2.4%	2.3%
Social Worker	1.1%	1.2%
Psychologist Clinical	1.6%	1.1%
General Acute Care Hospital	1.2%	1.0%

## Results for Providers of Pediatric Mental Health Care

### *Commercial*

As shown in **Table 1**, in both 2019 and 2020, for commercially insured NH children with at least 1 mental health condition (eg, with a primary diagnosis of a mental health condition), the highest percentage of visits were with a Mental Health Counselor or Clinical Social Worker. The next provider taxonomies with the highest percentage of visits for commercially insured children with a mental health condition were Mental Health Clinic/Center (Including Community Mental Health Center), Pediatrics, and Clinical Psychologist.

### *NH Medicaid*

As shown in **Table 2**, in both 2019 and 2020, nearly half of all visits for children insured by NH Medicaid with at least 1 mental health condition (eg, with a primary diagnosis of a mental health condition) were at Mental Health Clinical/Center (Including Community Mental Health Center). The next provider taxonomies with the highest percentage of visits for children insured by NH Medicaid with a mental health condition were Adolescent and Children Mental Health Clinic/Center, Community/Behavioral Health, Mental Health Counselor, and Foster Care Agency.

## Prescribers of Mental Health Pharmaceutical Classes

Pharmacy claims were also analyzed to determine which providers, by provider taxonomy, were prescribing the most commonly filled (described as “top”) mental health pharmaceutical classes to NH children and teens. The classes included in the analysis were CNS stimulants, antidepressants, antiadrenergic agents, centrally acting, anticonvulsants, antipsychotics, anxiolytics, sedatives, and hypnotics, and antimanic agents.

**Table 3.** Percentage of Total Fills for the Top Mental Health Pharmaceutical Classes by Prescribing Provider’s Taxonomy Among New Hampshire Children/Teens Insured Commercially, in 2019 and 2020

<b>Provider Taxonomy</b>	<b>Percentage of Total Fills for the Top Mental Health Pharmaceutical Classes by Prescribing Provider’s Taxonomy Among New Hampshire Children/Teens Insured Commercially, 2019</b>	<b>Percentage of Total Fills for the Top Mental Health Pharmaceutical Classes by Prescribing Provider’s Taxonomy Among New Hampshire Children/Teens Insured Commercially, 2020</b>
Psychiatry & Neurology	34.1%	35.1%
Pediatrics	31.5%	30.1%
Nurse Practitioner	20.1%	21.4%
Family Medicine	5.9%	5.6%
Clinical Nurse Specialist	2.4%	1.6%
Physician Assistant	1.7%	1.6%
Other	1.2%	1.4%
Internal Medicine	1.0%	1.3%
Registered Nurse	0.8%	0.5%
Dentist	0.2%	0.0%
Student in an Organized Health Care Education/Training Program	0.0%	0.4%

**Table 4.** Percentage of Total Fills for the Top Mental Health Pharmaceutical Classes by Prescribing Provider’s Taxonomy Among New Hampshire Children/Teens Insured by NH Medicaid, in 2019 and 2020

Provider Taxonomy	Percentage of Total Fills for the Top Mental Health Pharmaceutical Classes by Prescribing Provider’s Taxonomy Among New Hampshire Children/Teens Insured by NH Medicaid, 2019	Percentage of Total Fills for the Top Mental Health Pharmaceutical Classes by Prescribing Provider’s Taxonomy Among New Hampshire Children/Teens Insured by NH Medicaid, 2020
Nurse Practitioner	29.3%	30.5%
Pediatrics	30.8%	29.4%
Psychiatry & Neurology	26.9%	28.0%
Family Medicine	5.6%	5.3%
Physician Assistant	2.2%	2.4%
Clinical Nurse Specialist	2.8%	2.0%
Internal Medicine	1.0%	1.1%
Registered Nurse	0.8%	0.6%
Student in an Organized Health Care Education/Training Program	0.1%	0.3%
Emergency Medicine	0.1%	0.1%

### Results for Prescribers of Mental Health Pharmaceutical Classes

#### Commercial

As shown in **Table 3**, in both 2019 and 2020, more than one-third of the total prescription fills for the top mental health pharmaceutical classes prescribed to commercially insured NH children were filled by providers with a taxonomy of Psychiatry and Neurology. The provider taxonomy with the next highest percentage of total fills for the top mental health pharmaceutical classes was Pediatrics, followed by Nurse Practitioner.

#### NH Medicaid

Conversely, as shown in **Table 4**, the provider taxonomies of Pediatrics and Nurse Practitioner were responsible for the highest percentages of total prescription fills for the top mental health pharmaceutical classes prescribed to children insured by NH Medicaid in 2019 and 2020, followed closely by Psychiatry and Neurology.

## Rates of Selected Mental Health Pharmaceutical Classes

Pharmacy claims were analyzed to determine the rates of selected mental health pharmaceutical drug classes of interest prescribed to NH children and teens; these represent prescriptions for which there were claims (ie, filled prescriptions).

**Table 5.** Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts Among New Hampshire Children/Teens Insured Commercially, in 2019 and 2020

Pharmaceutical Class	Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts New Hampshire Among Children/Teens Insured Commercially, 2019	Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts New Hampshire Among Children/Teens Insured Commercially, 2020	Percent Change from 2019 to 2020
CNS Stimulants	470	435	-7.4%
Antidepressants	406	406	0.0%
Antiadrenergic Agents, Centrally Acting	152	151	-0.7%
Anticonvulsants	130	121	-6.9%
Antipsychotics	66	68	3.0%
Anxiolytics, Sedatives, and Hypnotics	42	43	2.4%
Antimanic Agents	6	4	-33.3%
<b>Any Selected Mental Health Drugs<sup>§</sup></b>	<b>1,272</b>	<b>1,229</b>	<b>-3.4%</b>

<sup>§</sup> Any Selected Mental Health Drugs include CNS Stimulants, Antidepressants, Antiadrenergic Agents, Centrally Acting, Anticonvulsants, Antipsychotics, Anxiolytics, Sedatives, and Hypnotics, and Antimanic Agents.

**Table 6.** Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts Among New Hampshire Children/Teens Insured by NH Medicaid, in 2019 and 2020

Pharmaceutical Class	Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts New Hampshire Among Children/Teens Insured by NH Medicaid, 2019	Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts Among New Hampshire Children/Teens Insured by NH Medicaid, 2020	Percent Change from 2019 to 2020
CNS Stimulants	807	782	-3.1%
Antidepressants	493	526	6.7%
Antiadrenergic Agents, Centrally Acting	422	461	9.2%
Anticonvulsants	236	237	0.4%
Antipsychotics	153	165	7.8%
Anxiolytics, Sedatives, and Hypnotics	106	114	7.5%
Antimanic Agents	7	8	14.3%
<b>Any Selected Mental Health Drugs</b>	<b>2,224</b>	<b>2,291</b>	<b>3.0%</b>

### Results for Rates of Selected Mental Health Pharmaceutical Classes

#### Commercial

As shown in **Table 5**, in 2020, there were a total of 1,229 prescriptions per 1,000 members by total scripts for any selected mental health drugs among commercially insured NH children, which represented a 3.4% decrease from the year prior. The pharmaceutical class with the most prescriptions per 1,000 members by total scripts among the commercially insured NH pediatric population was CNS stimulants with 435 prescriptions per 1,000 members, followed by antidepressants (406 per 1,000) and antiadrenergic agents, centrally acting (151 per 1,000). County-level rates of prescriptions per 1,000 members for “Any Selected Mental Health Drugs” (ie, across all mental health pharmaceutical classes above) were also explored. Among commercially insured children, those in Cheshire County and Sullivan County had the lowest rate of prescriptions for “Any Selected Mental Health Drugs” in 2020, with 1,010 and 1,039 prescriptions per 1,000 members by total scripts, respectively. Commercially insured children in Strafford County and Merrimack County had the highest rate of prescriptions for “Any Selected Mental Health Drugs” in 2020, with 1,335 and 1,227 prescriptions per 1,000 members by total scripts, respectively; see **Table C1** in **Appendix C** for more detail. These rates of prescriptions per 1,000 members for selected mental health pharmaceutical classes were also explored by age group; see **Table C2** in **Appendix C**.

From 2019 to 2020, rates of prescriptions per 1,000 members among commercially insured NH children decreased for 4 of the 7 selected classes of pharmaceuticals. Antipsychotics and anxiolytics, sedatives, and hypnotics were among the classes that experienced an increase in the rate of prescriptions, increasing by 3% and 2.4%, respectively.

*NH Medicaid*

As shown in **Table 6**, in 2020, of the rate of total scripts for selected mental health drugs was 2,291 per 1,000 members among children insured by NH Medicaid, which was a 3% increase from the year prior. Similar to the pediatric commercial population, the pharmaceutical classes with the most prescriptions per 1,000 members by total scripts among the NH Medicaid pediatric population were CNS stimulants (782 per 1,000), antidepressants (526 per 1,000) and antiadrenergic agents, centrally acting (461 per 1,000).

County-level analysis revealed that children insured by NH Medicaid living in Hillsborough County and Cheshire County had the lowest rate of prescriptions per 1,000 members by total script for “Any Selected Mental Health Drugs” in 2020, with 1,975 and 2,120, respectively. Meanwhile, children insured by NH Medicaid living in Sullivan County and Coos County had the highest rate of prescriptions for “Any Selected Mental Health Drugs” in 2020, with 2,953 and 2,829 prescriptions per 1,000 members by total scripts, respectively; see **Table C3** in **Appendix C** for more detail. These rates of prescriptions per 1,000 members for selected mental health pharmaceutical classes were also explored by age group; see **Table C4** in **Appendix C**.

From 2019 to 2020, the rates of prescriptions per 1,000 members of all selected mental health pharmaceutical classes, except for CNS stimulants, increased among the NH Medicaid pediatric population.



## Chapter 4: Conclusions

### Summary of Report Results

**Mental health diagnoses among NH children and teens with enrollment in a medical insurance plan were common and have remained stable over a 5-year period.** In 2020, 17% of NH children and teens insured commercially and 23% of those insured by NH Medicaid had a medical claim with a diagnosis code for a mental health condition, compared to 18% and 25%, respectively, in 2019. As recommended for further analysis in the April 2022 MCAP report, stratifying these analyses by age illuminated differences in rates, such that, as age increased, mental health conditions, indicated by diagnosis on medical claims, also increased. Among commercially insured NH children and teens ages 0 to 5, 3% had at least 1 claim for a mental health condition in 2020, compared to 16% of those ages 6 to 11 and 28% of those ages 12 to 17. A similar pattern is observed among children and teens insured by NH Medicaid, with 5%, 26%, and 37%, respectively, having a claim for a mental health condition. Selected mental health conditions specifically analyzed in this report included ADHD, anxiety, and depression. In 2020, 7%, 9%, and 4% of children and teens insured commercially had a diagnosis of ADHD, anxiety, and depression, respectively, while 10%, 8%, and 5% of children and teens insured by NH Medicaid had these diagnoses, respectively. Trend data for the time period of 2016 to 2020 was also analyzed and showed that all 3 mental health conditions have remained fairly stable over the 5 years. Lastly, mental health comorbidity analysis was also conducted, which revealed that these 3 mental health diagnoses most frequently co-occurred with each other, in addition to “other mental health disorder,” adjustment disorder, and conduct disorder. For example, among children and teens with anxiety insured by NH Medicaid, 36% had a comorbid mental health diagnosis of ADHD and 34% had a comorbid mental health diagnosis with depression, followed by 29% with anxiety and “other mental health disorder,” 18% with anxiety and adjustment disorder, and 12% with anxiety and conduct disorder. A similar pattern is observed among children and teens insured commercially. In addition, when analyzing comorbidities among children and teens with depression insured both commercially and by NH Medicaid, suicidal ideation is among the most common comorbid mental health conditions.

**Mental health care visits among NH children and teens were often with mental health providers, such as counselors or social workers, or in a Clinic setting, including Community Mental Health Centers (CMHC).** In 2020, among commercially insured NH children and teens with at least 1 mental health condition, 41.3% of total mental health care visits were with a Mental Health Counselor or Clinical Social Worker, indicated by provider taxonomy on the medical claim. In addition, 18.4% of mental health care visits among this population were rendered by the following provider taxonomies: Mental Health Clinic/Center (Including Community Mental Health Center), Pediatrics, and Clinical Psychologist. Among NH children and teens insured by NH Medicaid with at least 1 mental health condition, 61.1% of total mental health care visits were at a Mental Health Clinic/Center (Including Community Mental Health Center) or Adolescent and Children Mental Health Clinic/Center. The following 22.6% of mental health care visits among this population were

rendered by followed by the following taxonomies: Community/Behavioral Health, Mental Health Counselor, and Foster Care Agency.

**Mental health-related pharmaceuticals were commonly prescribed to NH children and teens.** In 2020, among commercially insured NH children and teens, 35.1% of prescriptions fills for mental health pharmaceutical classes were prescribed by Psychiatry & Neurology providers, determined by provider taxonomy. The following taxonomies were most common prescribers to this population: Pediatrics (30.1%) and Nurse Practitioners (21.4%). Among children and teens insured by NH Medicaid, 30.5% of prescription fills for mental health pharmaceutical classes were prescribed by the taxonomies: Nurse Practitioners, followed by Pediatrics (29.4%) and Psychiatry and Neurology (28.0%). In 2020, for NH children and teens insured both commercially and by NH Medicaid, the top 3 pharmaceutical classes prescribed were CNS simulants (which are often prescribed for ADHD), antidepressants (which are often prescribed for depression and anxiety), and antiadrenergic agents, centrally acting (which often prescribed for disorders of thought, mood, and anxiety). In comparing 2019 and 2020 prescription data for commercially insured children and teens, there was an overall decrease in any of the selected mental health drugs of 3.4%, and a decrease in most of the individual selected mental health pharmaceutical class. Among children and teens insured by NH Medicaid, there was an overall increase in any selected mental health drugs of 3.0%, and most individual selected mental health pharmaceutical classes increased.

## Limitations

Limitations of this data analysis mirror that of the April 2022 report, *New Hampshire Children and Teens Experiencing Mental Health Disorders: An Analysis of 2019 Healthcare Claims Data*, and must continue to be considered. As this analysis focused on only NH children and teens with enrollment in a medical insurance plan in 2019 and 2020, the percentages of NH children and teens with selected mental health conditions are likely underestimates of the true prevalence. Further, not every child or teen with a mental health condition receives medical care for the condition, and in order to be accounted for in this analysis, the child must have a medical claim with a mental health diagnosis during the analytic period. Additionally, even if a child or teen does have a medical visit, it does not necessarily mean that a clinician asks about and/or recognizes a mental health concern or records a diagnosis code. In addition, condition-specific rates may be affected by variations in clinician coding. For example, a child with anxiety symptoms may be given a diagnostic code of adjustment disorder as opposed to an anxiety diagnosis code. With respect to pharmaceuticals, filling a prescription does not necessarily mean the child or teen actually took the medication. Analysis by race and ethnicity was also not possible due to these fields being unavailable/unreliable in the claims data. Since this study was a descriptive analysis, statistical significance testing between commercial and Medicaid rates was not conducted.

## Recommendations for Future Analysis

While this descriptive analysis of pediatric mental health in NH builds upon the April 2022 report, it sheds additional light on even more areas for future analysis. There is interest in understanding patterns of diagnosis and treatment of mental health conditions with co-occurring physical health conditions, as this may illuminate differences. Further, research to discern the feasibility of analyzing mental health care service utilization by current care quality standards is recommended.

This report is unable to explain all of the “whys” of the data analysis and findings, including the differences in mental health conditions and treatment by insurance and provider types and the prescription patterns and frequency of specific pharmaceutical classes. Additional analysis is recommended to further explore the “whys” of this report’s findings.

While this report attempted to compare 2019 to 2020 claims data to help identify the effects of COVID-19 on pediatric mental health, the full impact of the pandemic is not yet clear. Findings indicate that additional years of data may be beneficial to further analyze how mental health and mental health care are changing over time post-pandemic and as children return to school. Further comparison of 2019 to 2020, 2021, and 2022 data may help illuminate some of these effects. Lastly, there is interest in exploring the presence of telehealth claims data in the future.

## Appendix A: Analysis of Pediatric Mental Health Conditions Data Tables

### All Mental Health Conditions

**Table A1.** Percentage of New Hampshire Children/Teens With a Mental Health Condition, by Insurance Type and County, in 2019 and 2020

County	Percentage of New Hampshire Children/Teens Insured Commercially With a Mental Health Condition		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With a Mental Health Condition	
	2019	2020	2019	2020
Belknap	16%	15%	25%	24%
Carroll	17%	17%	25%	25%
Cheshire	16%	16%	26%	22%
Coos	19%	17%	25%	28%
Grafton	17%	17%	27%	25%
Hillsborough	18%	17%	26%	20%
Merrimack	18%	18%	23%	25%
Rockingham	18%	18%	25%	25%
Strafford	18%	18%	27%	23%
Sullivan	14%	16%	26%	27%
<b>State</b>	<b>18%</b>	<b>17%</b>	<b>25%</b>	<b>23%</b>

**Table A2.** Percentage of New Hampshire Children/Teens With a Mental Health Condition, by Insurance Type and Age, in 2019 and 2020

Age	Percentage of New Hampshire Children/Teens Insured Commercially With a Mental Health Condition		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With a Mental Health Condition	
	2019	2020	2019	2020
0-5	3%	3%	6%	5%
6-11	17%	16%	29%	26%
12-17	28%	28%	39%	37%
<b>All Ages (0-17)</b>	<b>18%</b>	<b>17%</b>	<b>25%</b>	<b>23%</b>

Selected Mental Health Conditions by Diagnosis Code

ADHD Diagnosis:

**Table A3.** Percentage of New Hampshire Children/Teens With an ADHD Diagnosis, by Insurance Type and County, in 2019 and 2020

County	Percentage of New Hampshire Children/Teens Insured Commercially With an ADHD Diagnosis		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With an ADHD Diagnosis	
	2019	2020	2019	2020
Belknap	6%	5%	10%	9%
Carroll	7%	7%	10%	11%
Cheshire	6%	6%	11%	10%
Coos	8%	8%	13%	14%
Grafton	6%	7%	11%	11%
Hillsborough	7%	7%	10%	9%
Merrimack	6%	6%	10%	9%
Rockingham	7%	8%	13%	12%
Strafford	7%	7%	11%	10%
Sullivan	5%	5%	12%	12%
<b>State</b>	<b>7%</b>	<b>7%</b>	<b>11%</b>	<b>10%</b>

**Table A4.** Percentage of New Hampshire Children/Teens With an ADHD Diagnosis, by Insurance Type and Age, in 2019 and 2020

Age	Percentage of New Hampshire Children/Teens Insured Commercially With an ADHD Diagnosis		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With an ADHD Diagnosis	
	2019	2020	2019	2020
0-5	0%	0%	1%	1%
6-11	8%	8%	14%	13%
12-17	10%	10%	16%	16%
<b>All Ages (0-17)</b>	<b>7%</b>	<b>7%</b>	<b>11%</b>	<b>10%</b>

Anxiety Diagnosis:

**Table A5.** Percentage of New Hampshire Children/Teens With an Anxiety Diagnosis, by Insurance Type and County, in 2019 and 2020

County	Percentage of New Hampshire Children/Teens Insured Commercially With an Anxiety Diagnosis		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With an Anxiety Diagnosis	
	2019	2020	2019	2020
Belknap	7%	7%	8%	8%
Carroll	7%	8%	8%	9%
Cheshire	7%	7%	9%	8%
Coos	9%	8%	8%	10%
Grafton	8%	7%	9%	8%
Hillsborough	8%	8%	7%	7%
Merrimack	9%	9%	9%	9%
Rockingham	9%	9%	11%	11%
Strafford	9%	9%	9%	8%
Sullivan	7%	7%	9%	9%
<b>State</b>	<b>8%</b>	<b>9%</b>	<b>9%</b>	<b>8%</b>

**Table A6.** Percentage of New Hampshire Children/Teens With an Anxiety Diagnosis, by Insurance Type and Age, in 2019 and 2020

Age	Percentage of New Hampshire Children/Teens Insured Commercially With an Anxiety Diagnosis		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With an Anxiety Diagnosis	
	2019	2020	2019	2020
0-5	1%	1%	1%	1%
6-11	7%	7%	8%	7%
12-17	15%	15%	17%	17%
<b>All Ages (0-17)</b>	<b>8%</b>	<b>9%</b>	<b>9%</b>	<b>8%</b>

Depression Diagnosis:

**Table A7.** Percentage of New Hampshire Children/Teens With a Depression Diagnosis, by Insurance Type and County, in 2019 and 2020

County	Percentage of New Hampshire Children/Teens Insured Commercially With a Depression Diagnosis		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With a Depression Diagnosis	
	2019	2020	2019	2020
Belknap	3%	3%	5%	4%
Carroll	4%	4%	5%	5%
Cheshire	4%	4%	5%	5%
Coos	4%	3%	4%	5%
Grafton	3%	3%	5%	5%
Hillsborough	3%	4%	4%	4%
Merrimack	4%	4%	4%	5%
Rockingham	4%	4%	6%	6%
Strafford	3%	3%	5%	4%
Sullivan	3%	3%	5%	5%
<b>State</b>	<b>4%</b>	<b>4%</b>	<b>5%</b>	<b>5%</b>

**Table A8.** Percentage of New Hampshire Children/Teens With a Depression Diagnosis, by Insurance Type and Age, in 2019 and 2020

Age	Percentage of New Hampshire Children/Teens Insured Commercially With a Depression Diagnosis		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With a Depression Diagnosis	
	2019	2020	2019	2020
0-5	0%	0%	0%	0%
6-11	1%	1%	2%	1%
12-17	8%	8%	13%	13%
<b>All Ages (0-17)</b>	<b>4%</b>	<b>4%</b>	<b>5%</b>	<b>5%</b>

Selected Mental Health Conditions by Year, 2016-2020

**Table A9.** Percentage of New Hampshire Children/Teens With Selected Mental Health Conditions, by Condition and Insurance Type, from 2016 to 2020

Condition	Year	Percentage of New Hampshire Children/Teens Insured Commercially With Selected Mental Health Condition, 2016-2020	Percentage of New Hampshire Children/Teens Insured by NH Medicaid With Selected Mental Health Condition, 2016-2020
<b>ADHD</b>	2016	6%	10%
	2017	6%	10%
	2018	6%	10%
	2019	7%	11%
	<b>2020</b>	<b>7%</b>	<b>10%</b>
<b>Anxiety</b>	2016	6%	7%
	2017	7%	7%
	2018	8%	8%
	2019	8%	9%
	<b>2020</b>	<b>9%</b>	<b>8%</b>
<b>Depression</b>	2016	2%	3%
	2017	3%	4%
	2018	3%	4%
	2019	4%	5%
	<b>2020</b>	<b>4%</b>	<b>5%</b>



## Appendix B: Analysis of Pediatric Mental Health Conditions and Comorbidities with Other Mental Health Conditions Data Tables

### ADHD and Comorbid Mental Health Diagnoses

**Table B1.** Percentage of New Hampshire Children/Teens Diagnosed With ADHD and Comorbid Mental Health Diagnoses, by Comorbid Condition and Insurance Type, in 2019 and 2020

Comorbid Mental Health Diagnoses	Percentage of New Hampshire Children/Teens Insured Commercially With ADHD and Comorbid Mental Health Diagnoses		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With ADHD and Comorbid Mental Health Diagnoses	
	2019	2020	2019	2020
ADHD Diagnosis Codes Only	47%	45%	37%	39%
ADHD with Anxiety	35%	37%	29%	30%
ADHD with Other Mental Health Disorder	21%	21%	26%	24%
ADHD with Depression	15%	16%	19%	17%
ADHD with Adjustment Disorder	12%	12%	16%	15%
ADHD with Conduct Disorders	8%	8%	15%	15%
ADHD with Disruptive Mood Dysregulation Disorder	3%	3%	8%	8%
ADHD with Suicidal Ideation	3%	3%	4%	4%
ADHD with Substance Use Disorder	2%	2%	4%	3%
ADHD with PTSD	2%	2%	2%	2%
ADHD with Mania and Bipolar	2%	2%	2%	1%
ADHD with Schizophrenia, Schizotypal and Delusional Disorders	2%	2%	1%	1%
ADHD with Personality Disorders	1%	2%	0%	0%

## Anxiety and Comorbid Mental Health Diagnoses

**Table B2.** Percentage of New Hampshire Children/Teens Diagnosed With Anxiety and Comorbid Mental Health Diagnoses, by Comorbid Condition and Insurance Type, in 2019 and 2020

Comorbid Mental Health Diagnoses	Percentage of New Hampshire Children/Teens Insured Commercially With Anxiety and Comorbid Mental Health Diagnoses		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With Anxiety and Comorbid Mental Health Diagnoses	
	2019	2020	2019	2020
Anxiety Diagnosis Codes Only	37%	36%	36%	36%
Anxiety with ADHD	29%	29%	32%	34%
Anxiety with Depression	28%	29%	29%	29%
Anxiety with Other Mental Health Disorder	25%	26%	26%	25%
Anxiety with Adjustment Disorder	15%	15%	19%	18%
Anxiety with Conduct Disorders	6%	5%	13%	12%
Anxiety with Suicidal Ideation	5%	4%	9%	10%
Anxiety with PTSD	4%	4%	7%	7%
Anxiety with Substance Use Disorder	3%	2%	3%	4%
Anxiety with Disruptive Mood Dysregulation Disorder	3%	2%	3%	3%
Anxiety with Mania and Bipolar	2%	2%	2%	2%
Anxiety with Schizophrenia, Schizotypal and Delusional Disorders	2%	2%	2%	1%
Anxiety with Personality Disorders	2%	2%	1%	1%

Depression and Comorbid Mental Health Diagnoses

**Table B3.** Percentage of New Hampshire Children/Teens Diagnosed With Depression and Comorbid Mental Health Diagnoses, by Comorbid Condition and Insurance Type, in 2019 and 2020

Comorbid Mental Health Diagnoses	Percentage of New Hampshire Children/Teens Insured Commercially With Depression and Comorbid Mental Health Diagnoses		Percentage of New Hampshire Children/Teens Insured by NH Medicaid With Depression and Comorbid Mental Health Diagnoses	
	2019	2020	2019	2020
Depression with Anxiety	67%	68%	57%	59%
Depression with Other Mental Health Disorder	32%	34%	33%	32%
Depression with ADHD	29%	29%	32%	31%
Depression with Adjustment Disorder	22%	21%	23%	20%
Depression Diagnosis Codes Only	15%	14%	17%	15%
Depression with Suicidal Ideation	14%	11%	14%	14%
Depression with PTSD	7%	9%	14%	14%
Depression with Conduct Disorders	6%	7%	14%	13%
Depression with Substance Use Disorder	6%	6%	7%	6%
Depression with Mania and Bipolar	5%	5%	5%	5%
Depression with Schizophrenia, Schizotypal and Delusional Disorders	5%	4%	3%	3%
Depression with Disruptive Mood Dysregulation Disorder	4%	4%	3%	2%
Depression with Personality Disorders	4%	4%	2%	2%

## Appendix C: Analysis of Pediatric Mental Health Care Providers and Mental Health Pharmaceutical Classes Data Tables

### Rates of Selected Mental Health Pharmaceutical Classes

**Table C1.** Prescriptions per 1,000 Members for “All Selected Mental Health Drugs” by Total Scripts Among New Hampshire Children/Teens Insured Commercially, by County, in 2019 and 2020

<b>County</b>	<b>Prescriptions per 1,000 Members for “Any Selected Mental Health Drugs” by Total Scripts Among New Hampshire Children/Teens Insured Commercially, 2019</b>	<b>Prescriptions per 1,000 Members for “Any Selected Mental Health Drugs” by Total Scripts Among New Hampshire Children/Teens Insured Commercially, 2020</b>
Belknap	1,165	1,067
Carroll	1,164	1,109
Cheshire	1,090	1,010
Coos	1,289	1,101
Grafton	1,373	1,254
Hillsborough	1,287	1,245
Merrimack	1,287	1,277
Rockingham	1,301	1,244
Strafford	1,291	1,335
Sullivan	1,032	1,039
<b>State</b>	<b>1,272</b>	<b>1,229</b>

**Table C2.** Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts Among New Hampshire Children/Teens Insured Commercially, by Age, in 2019 and 2020

Pharmaceutical Class	Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts Among New Hampshire Children/Teens Insured Commercially, 2019				Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts Among New Hampshire Children/Teens Insured Commercially, 2020			
	0-5	6-11	12-17	All Ages (0-17)	0-5	6-11	12-17	All Ages (0-17)
CNS Stimulants	10	522	721	<b>470</b>	10	491	663	<b>435</b>
Antidepressants	8	163	859	<b>406</b>	10	166	858	<b>406</b>
Antiadrenergic Agents, Centrally Acting	11	194	209	<b>152</b>	11	188	212	<b>151</b>
Anticonvulsants	44	95	214	<b>130</b>	40	88	201	<b>121</b>
Antipsychotics	1	36	131	<b>66</b>	1	34	140	<b>68</b>
Anxiolytics, Sedatives, and Hypnotics	8	30	74	<b>42</b>	9	28	77	<b>43</b>
Antimanic Agents	0	2	14	<b>7</b>	0	2	9	<b>4</b>
<b>Any Selected Mental Health Drugs</b>	<b>81</b>	<b>1,041</b>	<b>2,222</b>	<b>1,272</b>	<b>82</b>	<b>996</b>	<b>2,159</b>	<b>1,229</b>

**Table C3.** Prescriptions per 1,000 Members for “All Selected Mental Health Drugs” by Total Scripts Among New Hampshire Children/Teens Insured by NH Medicaid, by County, in 2019 and 2020

County	Prescriptions per 1,000 Members for “Any Selected Mental Health Drugs” by Total Scripts Among New Hampshire Children/Teens Insured by NH Medicaid, 2019	Prescriptions per 1,000 Members for “Any Selected Mental Health Drugs” by Total Scripts Among New Hampshire Children/Teens Insured by NH Medicaid, 2020
Belknap	2,306	2,346
Carroll	1,927	2,212
Cheshire	2,221	2,120
Coos	2,674	2,829
Grafton	2,519	2,514
Hillsborough	1,955	1,975
Merrimack	2,232	2,432
Rockingham	2,398	2,521
Strafford	2,460	2,370
Sullivan	2,585	2,953
<b>State</b>	<b>2,224</b>	<b>2,291</b>

**Table C4.** Prescriptions per 1,000 Members for Selected Mental Health Pharmaceutical Classes by Total Scripts Among New Hampshire Children/Teens Insured by NH Medicaid, by Age, in 2019 and 2020

Pharmaceutical Class	Prescriptions per 1,000 Members for “All Selected Mental Health Drugs” by Total Scripts Among New Hampshire Children/Teens Insured by NH Medicaid, 2019				Prescriptions per 1,000 Members for “All Selected Mental Health Drugs” by Total Scripts New Hampshire Among Children/Teens Insured by NH Medicaid, 2020			
	0-5	6-11	12-17	All Ages (0-17)	0-5	6-11	12-17	All Ages (0-17)
CNS Stimulants	30	1,071	1,251	<b>807</b>	34	1,021	1,206	<b>782</b>
Antidepressants	4	260	1,198	<b>493</b>	5	277	1,253	<b>526</b>
Antiadrenergic Agents, Centrally Acting	42	563	625	<b>422</b>	50	620	667	<b>461</b>
Anticonvulsants	69	207	421	<b>236</b>	73	183	440	<b>237</b>
Antipsychotics	3	120	328	<b>153</b>	5	128	347	<b>165</b>
Anxiolytics, Sedatives, and Hypnotics	16	88	210	<b>106</b>	17	95	220	<b>114</b>
Antimanic Agents	0	1	20	<b>7</b>	0	3	20	<b>8</b>
<b>Any Selected Mental Health Drugs</b>	<b>166</b>	<b>2,309</b>	<b>4,054</b>	<b>2,224</b>	<b>183</b>	<b>2,327</b>	<b>4,152</b>	<b>2,291</b>

## Appendix D: Diagnosis Code Ranges for Mental Health Conditions

Condition and Code(s) or Code Ranges
<b>Anxiety</b>
F41*
<b>Depression</b>
F32*-F33*
<b>ADHD</b>
F90*
<b>Schizophrenia, Schizotypal and Delusional Disorders</b>
F20*-F29*
<b>Mania and Bipolar</b>
F30*-F31*
<b>Disruptive Mood Dysregulation Disorder</b>
F34.81
<b>PTSD</b>
F43.10, F43.11, F43.12
<b>Adjustment Disorder</b>
F43.20-F43.29
<b>Personality Disorders</b>
F60*
<b>Conduct Disorders</b>
F91*
<b>Other Mental Health Disorder (F34.81 Excluded)</b>
F34.0, F34.1, F34.8, F34.9, F39*, F40*, F42*, F43.8, F43.9, F44*, F45*, F48*, F50*-F55*, F59*, F63*-F66*, F68*, F69*, F93*-F95*, F98*, F99*
<i>Other Mental Health Disorders include: persistent mood disorders, unspecified mood disorders, phobic anxiety disorders, obsessive-compulsive disorders, other reactions to severe stress, reaction to severe stress unspecified, dissociative and conversion disorders, somatoform disorders, eating disorders, sleep disorders, sexual dysfunction (not due to substance or known physiological condition), abuse of non-psychoactive substances, unspecified behavioral syndromes associated with physiological disturbances and physical factors, impulse disorders, gender identity disorders, paraphilias, other sexual disorders, unspecified disorder of adult personality and behavior, emotional disorders with onset specific to childhood, disorders of social functioning with onset specific to childhood and adolescence, tic disorder, other behavioral</i>

<i>and emotional disorders with onset usually occurring in childhood and adolescence, and mental disorder, not otherwise specified</i>
<b>Suicidal Ideation</b>
R45.851, T14.91, T14.91X, T40.0X2A, T40.0X2D, T40.0X2S, T40.1X2A, T40.1X2D, T40.1X2S, T40.2X2A, T40.2X2D, T40.2X2S, T40.3X2A, T40.3X2D, T40.3X2S, T40.4X2A, T40.4X2D, T40.4X2S, T40.5X2A, T40.5X2D, T40.5X2S, T40.7X2A, T40.7X2D, T40.7X2S, T40.8X2A, T40.8X2D, T40.8X2S, T40.412A, T40.412D, T40.412S, T40.422A, T40.422D, T40.422S, T40.492A, T40.492D, T40.492S, T40.602A, T40.602D, T40.602S, T40.692A, T40.692D, T40.692S, T40.902A, T40.902D, T40.902S, T40.992A, T40.992D, T40.992S
<b>Substance User Disorder</b>
F10*-F16*, F18*, F19*



## Appendix E: Treatment and Pharmaceutical Codes

The codes below are used for detected treatment in Professional and Outpatient claims. Any Inpatient Stay with any mental health diagnosis on the claim line was considered service utilization for a mental health condition.

### Procedure codes:

- |                             |         |                         |                         |
|-----------------------------|---------|-------------------------|-------------------------|
| • 90832 (with MH Diagnosis) | • 90806 | • 90882                 | • H0038 (with CMHC NPI) |
| • 90833 (with MH Diagnosis) | • 90807 | • 90885                 | • 97155 (with CMHC NPI) |
| • 90834 (with MH Diagnosis) | • 90808 | • 90825                 | • 97156 (with CMHC NPI) |
| • 90836 (with MH Diagnosis) | • 90809 | • 90831                 | • 97151 (with CMHC NPI) |
| • 90837 (with MH Diagnosis) | • 90810 | • 90843                 | • H2022 (with CMHC NPI) |
| • 90838 (with MH Diagnosis) | • 90812 | • 90844                 | • T1023 (with CMHC NPI) |
| • 90839 (with MH Diagnosis) | • 90817 | • 90887                 | • H2012 (with CMHC NPI) |
| • 90840 (with MH Diagnosis) | • 90822 | • 90889                 | • 96130 (with CMHC NPI) |
| • S0201 (with MH Diagnosis) | • 90823 | • 90899                 | • 96131 (with CMHC NPI) |
| • 96150 (with MH Diagnosis) | • 90824 | • H2019 (with CMHC NPI) | • 96138 (with CMHC NPI) |
| • 96151 (with MH Diagnosis) | • 90826 | • T1027 (with CMHC NPI) | • 96139 (with CMHC NPI) |
| • 96152 (with MH Diagnosis) | • 90827 | • H2027 (with CMHC NPI) | • H0031 (with CMHC NPI) |
| • 96154 (with MH Diagnosis) | • 90857 | • H2010 (with CMHC NPI) | • 96153 (with CMHC NPI) |
| • 96155 (with MH Diagnosis) | • 90862 | • H2023 (with CMHC NPI) | • 96133 (with CMHC NPI) |
| • 96156 (with MH Diagnosis) | • 90845 | • H0035 (with CMHC NPI) | • 96132 (with CMHC NPI) |
| • 96157 (with MH Diagnosis) | • 90846 | • H2001 (with CMHC NPI) | • 96116 (with CMHC NPI) |
| • 96158 (with MH Diagnosis) | • 90847 | • H2018 (with CMHC NPI) | • 99404 (with CMHC NPI) |
| • 99251 (with MH Diagnosis) | • 90849 | • T1016 (with CMHC NPI) | • H2017 (with CMHC NPI) |
| • 99252 (with MH Diagnosis) | • 90853 | • H2020 (with CMHC NPI) | • 92507 (with CMHC NPI) |
| • 99253 (with MH Diagnosis) | • 90863 | • H0034 (with CMHC NPI) | • H0032 (with CMHC NPI) |
| • 99254 (with MH Diagnosis) | • 90875 | • H2015 (with CMHC NPI) | • S9480 (with CMHC NPI) |
| • 99255 (with MH Diagnosis) | • 90876 | • S9485 (with CMHC NPI) | • 96110 (with CMHC NPI) |
| • 99281 (with MH Diagnosis) | • 90867 | • S9484 (with CMHC NPI) | • 96136 (with CMHC NPI) |
| • 99282 (with MH Diagnosis) | • 90868 | • H2011 (with CMHC NPI) | • 96137 (with CMHC NPI) |
| • 99283 (with MH Diagnosis) | • 90869 | • H0043 (with CMHC NPI) | • G0176 (with CMHC NPI) |
| • 99284 (with MH Diagnosis) | • 90870 | • 97153 (with CMHC NPI) | • G0177 (with CMHC NPI) |
| • 99285 (with MH Diagnosis) | • 90871 | • H0040 (with CMHC NPI) | • G0410 (with CMHC NPI) |
| • 90804                     | • 90880 | • 90785 (with CMHC NPI) | • G0411 (with CMHC NPI) |

### Community Mental Health Center NPIs:

- 1003914466
- 1013092857
- 1174635684
- 1285793190
- 1497944623
- 1609848811
- 1649331224
- 1689863342
- 1700955028
- 1770588444
- 1902994866
- 1942264940

### Drug Classes:

The pharmaceutical analysis uses Lexicomp drug classes. Drugs were flagged as mental pharmaceutical treatment if they were in the following classes:

- Anxiolytics, sedatives, and hypnotics
- Antiadrenergic agents, centrally acting
- Anticonvulsants
- Antidepressants
- Antimanic agents
- Antipsychotics
- CNS stimulants

## **Appendix F: Supplemental Data Sources and Uses**

- American Medical Association (AMA): Procedure codes and descriptions
- American Hospital Association (AHA): Revenue codes
- Centers for Medicare and Medicaid Services (CMS): ICD 10 procedure codes
- National Uniform Claim Committee (NUCC): Provider taxonomies
- National Plan & Provider Enumeration System (NPPES): Provider information