DEPARTMENT OF HEALTH
AND HOSPITALS

Prepared in Response to Senate Concurrent Resolution No. 39 of the 2014 Regular Session

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Health & Hospitals
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Place Stamp Here

After this symposium, I plan to:

Visit us online at www.DHH.la.gov/ADHD

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List of Acronyms in Report

AACAP – American Academy of Child and Adolescent Psychiatry

AAP – American Academy of Pediatrics

ADHD – Attention Deficit Hyperactivity Disorder

AHRQ – Agency for Health Care Research and Quality

CDC – Centers for Disease Control and Prevention

CME – Continuing Medical Education

DCFS – Department of Children and Family Services

DHH – Department of Health and Hospitals

DOE – Department of Education

DSM-5 – Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

DUR – Drug Utilization Review

EBPs – Evidence-Based Practices

FDA – U.S. Food and Drug Administration

IEP – Individualized Education Program

LEA – Local Education Agency

LMHP – Licensed Mental Health Professional

MTM – Medication Therapy Management

OBH – Office of Behavioral Health

OCDD – Office for Citizens with Disabilities

OJJ – Office of Juvenile Justice

PBIS – Positive Behavioral Interventions and Supports

PCPs – Primary Care Physicians

PNP – Pupil Needs Appraisal

SBLCs – School Building Level Committees

Introduction & Background

During the 2014 Regular Session, the Louisiana legislature passed Senate Concurrent Resolution No. 39 by Senator David Heitmeier. This resolution urged and requested DHH to study the most effective means to ensure the proper utilization of Attention Deficit Hyperactivity Disorder medications in Louisiana and to report findings to the Senate Committee on Health and Welfare and the House Committee on Health and Welfare. This document presents the findings of the Department.

Statement of the Problem

In March of 2014, Express Scripts, the largest pharmacy benefit manager in the United States, released a report titled, "Turning Attention to ADHD: U.S. Medication Trends for Attention Deficit Hyperactivity Disorder,"[1] which led to concern about high rates of ADHD medication in Louisiana and the drafting and passing of Senate Concurrent Resolution No. 39 on the issue. The Express Scripts report includes key statistics regarding ADHD medication in the United States and Louisiana, background information and ideas about the issue. The report used a sample size of 15 million privately insured, aged 0 to 64, and pharmacy claims of more than 400,000 people filling at least one ADHD medication over a five-year (2008-2012) period and evaluated records with aged 4 to 64.

Other key background information found in the Express Scripts report includes:

- Noting Attention Deficit Hyperactivity Disorder (ADHD) is one of the most commonly diagnosed conditions of childhood in the United States. According to the Centers for Disease Control (CDC), in 2012 11 percent of children ages 4 to 17 had been diagnosed with ADHD.
- Since the recognition of ADHD as a condition in 1980, the population treated for ADHD has exploded in the United States, and rates of treatment are higher in the United States than in other countries. Use of ADHD medications among Americans rose 35.5 percent from 2008 to 2012.
- Medication therapy is the most commonly used treatment. It is recommended as first line for children over 6, although behavioral therapy is the recommended first-line approach in children under 6.
- Boys aged 12 to 18 are the most prevalent consumers of medication for ADHD, with 9.3 percent of that population taking an ADHD medication in 2012, up from 7.9 percent in 2008.
- Spending on ADHD medication rose 14.2 percent in 2012, the greatest increase seen among any traditional drug category; it was forecast to grow nearly 25 percent by 2015.
- Only one out of four insured children taking ADHD medication received any form of psychotherapy in a 2010 study conducted by Express Scripts with RAND Health. The study also identified a wide disparity in the rates of psychotherapy received across the United States.

The Express Scripts report points to a variety of factors and trends that may be contributing to increased utilization of ADHD medication in children, including:

- increased awareness and acceptance of ADHD as a behavioral disorder;
- high-stakes testing in schools and increased pressure on schools to improve academic performance;
- misdiagnosis of other psychiatric disorders;
- children's exposure to "screen time" (while there is no conclusive evidence that screen time causes ADHD, it is associated with inattention and distractibility);
- lack of access to behavioral specialists;
- socio-economics; and
- use as an academic performance enhancer.

This report raised concern in Louisiana about the state's high levels of ADHD diagnosis and treatment, and whether these high rates reflect problems with overdiagnosis, misdiagnosis or

1 Express Scripts. "Turning Attention to ADHD: U.S. Medication Trends for Attention Deficit Hyperactivity Disorder." March 2014. http://lab.express-scripts.com/insights/industry-updates/~/media/89fb0aba100743b5956ad0b5ab286110.ashx

systemic barriers to accessing care in the state. The Department used this information as a jumping off point to study the issue of effective diagnosis and treatment of ADHD.

Work of the ADHD Task Force

Following Senate Concurrent Resolution No. 39, DHH Secretary Kathy Kliebert convened resources in the Department of Health and Hospitals to assemble a departmental task force to study the proper utilization of ADHD medication in Louisiana. This Task Force was composed of staff from the Office of the Secretary, the Office of Behavioral Health, the Office for Citizens with Developmental Disabilities, the Bureau of Health Services Financing (Medicaid) and the Office of Public Health. It included pediatricians, psychiatrists, psychologists, experts in maternal and child health, GIS experts and policy experts. The Task Force also received expertise in pediatrics/psychiatry from Tulane University and technical assistance from the Centers for Disease Control and Prevention.

As the resolution requested the Department study the **most effective means** to ensure proper utilization of ADHD medications in Louisiana and report findings, members of the Task Force made the initial decision to focus efforts on ADHD medication use in Louisiana's children, as the rates for children were particularly high and the group believed more effective results could be achieved if efforts were focused on ages 0-18. The Task Force examined the data and research on ADHD and ADHD medication in general and then, utilizing data and GIS expertise, looked into the hard data in Louisiana in order to provide the Task Force with a clearer picture of the trends in the state. The Task Force reviewed data from three sources: Medicaid (which covers 62 percent of Louisiana's children); Express Scripts (which includes information from the privately insured); and the Centers for Disease Control and Prevention (CDC) (which covers Louisiana and National trends). From this information, the Task Force created the most comprehensive picture of what was happening in the state regarding medication trends in children and as it compares with the rest of the country.

With these figures in mind, the Task Force began holding meetings and discussing what the data meant and what it might inform in terms of solutions, keeping in mind best practices in this field and recommendations based on other states' approaches. Starting in August of 2014, the Task Force held a total of eight meetings along with additional conference calls with Express Scripts, legislators and the CDC. The Task Force reached out to Susanna Visser, DrPH, head of the CDC's program on ADHD, to provide further data and technical assistance on this issue as well as insight into what was working and not working in other states regarding responses to proper utilization of ADHD medication.

The ADHD Symposium and Further Outreach

The ADHD Task Force, on behalf of Secretary Kliebert and the Department of Health and Hospitals, held an ADHD Symposium on December 9, 2014, as part of an outreach strategy to involve and educate the community as well as draw on their varying areas of expertise and gather potential solutions. Specifically, the Department invited and welcomed experts, leaders, and interested parties from medicine, behavioral health, health plan management, education, affected families, advocacy groups, and government to begin the larger discussion of solutions on how to best serve Louisiana's youth by sharing the data collected on ADHD medication rates for youth in Louisiana and the United States and best practices surrounding proper utilization of ADHD medications. The goals of the Symposium were twofold: to raise awareness and education about this issue and to bring partners together to develop solutions and discuss potential barriers and levers for change.

The event was highly successful, with larger-than-expected attendance. Over 150 people from a wide variety of fields attended in person, and over 70 attended via live-streaming webinars. In addition, from evaluations, the Task Force found 95 percent of in-person attendees rated the event as excellent or good and 97 percent rated the speakers as excellent or good.

The Task Force also received tremendous written feedback from attendees, with many particularly appreciating receiving the data on ADHD and ADHD medication rates and others noting that this work should continue. Seventy attendees made concrete plans for action following the event, which will be mailed back to them in the near future. Overall, the Task Force was pleased to find a significant interest in this issue and considerable enthusiasm and motivation to work to improve the current situation.

Additionally, the Task Force reached out to the Louisiana Association of Principals as part of outreach to classrooms, the context where most children operate. Recognizing the strong role of schools in identifying and responding when a child struggles to pay attention, Secretary Kliebert sent a letter to the Association seeking to work with schools interested in piloting creative strategies to improve the management of behavior and attention in children in ways that benefit both teachers and students. The Task Force pointed to recent, emerging research on innovative and inexpensive ways schools can respond to attention issues by focusing on increased physical activity in schools. The following articles, highlighting the issue, were shared with the Louisiana Association of Principals:

- "How Finland Keeps Kids Focused" http://www.theatlantic.com/education/archive/2014/06/how-finland-keeps-kids-focused/373544/
- "Put the Physical in Education" http://well.blogs.nytimes.com/2014/09/04/adhd-children-excercise-pe/?_php=true&_type=blogs&_r=0
- "Exercise Improves School Performance for Kids with ADHD" http://www.medicalnewstoday.com/articles/251573.php

DHH invited schools to pilot methods to integrate increased physical activity into their daily routine, such as:

- increasing the frequency of break times;
- considering physical activity in and out of the classroom;
- extending the time allotted for recess;
- increasing the length of the school day to incorporate additional breaks; and
- having children get up and move every so often (micro-breaks, 1-2 minutes).

The Basics on ADHD

ADHD is one of the most-common neurodevelopmental disorders of childhood. It is usually first diagnosed in childhood and often lasts into adulthood. Children with ADHD may have trouble paying attention or controlling impulsive behaviors (they may act without thinking about what the result will be), and they may be overly active.

Many children have trouble focusing and behaving at one time or another. These symptoms may reach the level of a disorder if they continue over time and cause difficulty at school, at home or with friends. Deciding if a child has ADHD is a several-step process. There is no single test to diagnose ADHD, and many other problems, like anxiety, depression, certain types of learning disabilities, the effects of trauma, early childhood adversity and toxic stress, can present similar symptoms. The American Psychiatric Association's Diagnostic and Statistical Manual, Fifth edition (DSM-5) is used by mental health professionals to help diagnose ADHD. In most cases, ADHD is best treated with a combination of behavior therapy and medication. Good treatment plans will include close monitoring, follow-ups and any changes needed along the way.

Treatment options for ADHD include:

- behavioral intervention strategies;
- parent management training;
- school accommodations and interventions; and
- medications.

Nationally Recognized, Empirically Based Guidelines

Fortunately, there is a strong body of research evidence to guide decision-making around ADHD assessment, diagnosis and treatment.

The American Academy of Pediatrics (AAP) first published guidelines on the diagnosis and evaluation of ADHD in 2000, with recommendations for treatment published in 2001. Based on new data collected since then, the AAP released new guidelines in 2011[2], which were endorsed by the American Academy of Family Physicians in 2012. These clinical practice guidelines provide evidence-based recommendations for the diagnosis and treatment of children diagnosed with ADHD. These guidelines are intended for use by clinicians working in primary care settings. The AAP guidelines are also broadly similar to practice parameters for the assessment and treatment of ADHD that have been developed by the American Academy of Child and Adolescent Psychiatrists (AACAP)[3].

Diagnosis and Evaluation

The following are the AAP recommendations for **diagnosis and evaluation** of ADHD:

- The primary care clinician should initiate an evaluation for ADHD for any child 4 through 18 years of age who presents with academic or behavioral problems and symptoms of inattention, hyperactivity or impulsivity.
- To make a diagnosis of ADHD, the primary care clinician should determine that diagnostic criteria have been met based on Diagnostic and Statistical Manual of Mental Disorders – Fifth edition (DSM-5). Making a diagnosis includes documenting that the child is impaired in more than one major setting (e.g., in school and at home). The primary care clinician should include reports from parents or guardians, teachers and/or other school and mental health clinicians involved in the child's care. The primary care clinician should also rule out any other possible cause.
- When evaluating a child for ADHD, the primary care clinician should assess whether other conditions are present that might coexist with ADHD, including emotional or behavioral (e.g., anxiety, depressive, oppositional defiant and conduct disorders), developmental (e.g., learning and language disorders or other neurodevelopmental disorders), and physical (e.g., tics or sleep apnea) conditions.
  - Note: while not specifically referenced in the 2011 ADHD guidelines, the role of trauma and toxic stress in contributing to behavioral dysregulation – which can also co-occur with or be mistaken for ADHD – was detailed by the AAP in 2012 when they released a policy statement[4] and technical report[5] for physicians to aid in understanding the impact of trauma and toxic stress on children's health.
- The primary care clinician should recognize ADHD as a chronic condition and, therefore, consider children and adolescents with ADHD as children and youth with special health care needs. Care for such children and youth should follow the principles of the chronic care model and the medical home.

Treatment

The following are the AAP recommendations for the **treatment** of ADHD:

- Recommendations for treatment of children and youth with ADHD vary depending on the patient's age:
  - For preschool-aged children (4–5 years of age), the primary care clinician should prescribe evidence-based parent- and/or teacher-administered behavior therapy

2 American Academy of Pediatrics. "Subcommittee on Attention-Deficit/Hyperactivity Disorder, Steering Committee on Quality Improvement and Management. ADHD: clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents." Pediatrics 128.5 (2011): 1007-1022. http://pediatrics.aappublications.org/content/early/2011/10/14/peds.2011-2654.full.pdf

3 Action, AACAP Official. "Practice parameter for the assessment and treatment of children and adolescents with attention-deficit/hyperactivity disorder." J. Am. Acad. Child Adolesc. Psychiatry 46.7 (2007). http://download.journals.elsevierhealth.com/pdfs/journals/0890-8567/PIIS0890856709621821.pdf

4 Garner, A.S., Shonkoff, J.P., Siegel, B.S., Dobbins, M.I., Earls, M.F., McGuinn, L., … & Wood, D.L. (2012). Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science Into Lifelong Health. *Pediatrics*, *129* (1), 224-231. http://pediatrics.aappublications.org/content/129/1/e224.long

5 Shonkoff, J.P., Garner, A.S., Siegel, B.S., Dobbins, M.I., Earls, M.F., McGuinn, L., … & Wood, D.L. (2012). The Lifelong Effects of Early Childhood Adversity and Toxic Stress. *Pediatrics*, *129* (1), 232-246. http://pediatrics.aappublications.org/content/129/1/e232.long

as the first line of treatment and may prescribe methylphenidate if the behavior interventions do not provide significant improvement and there is moderate-to severe continuing disturbance in the child's function. In areas where evidence-based behavioral treatments are not available, the clinician needs to weigh the risks of starting medication at an early age against the harm of delaying diagnosis and treatment.

- For elementary school-aged children (6–11 years of age), the primary care clinician should prescribe U.S. Food and Drug Administration–approved medications for ADHD and/or evidence-based parent- and/or teacher-administered behavior therapy as treatment for ADHD, preferably both. The evidence is particularly strong for stimulant medications and sufficient but less strong for atomoxetine, extended-release guanfacine and extended-release clonidine (in that order). The school environment, program or placement should be considered as part of any treatment plan.
- For adolescents (12–18 years of age), the primary care clinician should prescribe U.S. Food and Drug Administration–approved medications for ADHD with the assent of the adolescent and may prescribe behavior therapy as treatment for ADHD, preferably both.

- The primary care clinician should titrate (or adjust to the appropriate levels) doses of medication for ADHD to achieve maximum benefit with minimum adverse effects.

Why Behavioral Therapy?

Research shows that behavioral therapy can be an important part of treatment for children with ADHD. ADHD affects not only a child's ability to pay attention or sit still at school, it also affects his or her relationships with family and academic performance. Medication alone **can** improve ADHD symptoms, but **may not** improve the impairment or change parenting or social skills. Behavioral therapy can address these needs through parenting classes and therapy for children to learn appropriate social skills; this in turn can contribute to long-term results.

Behavioral therapy is a particularly important treatment option for preschoolers. The 2011 clinical practice guidelines from the American Academy of Pediatrics (AAP) recommend that doctors prescribe behavior interventions that are evidence-based as the first line of treatment for preschool-aged children (4–5 years of age) with ADHD.

The Agency for Health Care Research and Quality (AHRQ) conducted a review in 2010 of all existing studies on treatment options for preschoolers[6]. The review found enough evidence to recommend parent behavioral interventions as a good treatment option for preschoolers with disruptive behavior in general and as helpful for those with ADHD symptoms.

The AHRQ review found that effective parenting programs help parents develop a positive relationship with their child, teach them about how children develop and help them manage negative behavior with positive discipline. The review also found four programs for parents of preschoolers that include these key components:

- The Triple-P program (Positive Parenting of Preschoolers program),
- Incredible Years Parenting Program,
- Parent-Child Interaction Therapy, and
- New Forest Parenting Program.

Population-Level Data: Louisiana and the Nation

Data from the Centers for Disease Control and Prevention (CDC)

On December 9, 2014, Susanna Visser, DrPH, of the CDC presented at the ADHD Symposium organized by DHH in Baton Rouge.

6 Dashti, B., et al. Attention Deficit Hyperactivity Disorder: Effectiveness of Treatment in At-risk Preschoolers; Long-term Effectiveness in All Ages; and Variability in Prevalence, Diagnosis, and Treatment. Agency for Healthcare Research and Quality, 2011. http://www.effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productID=818

This presentation, *Epidemiology of Attention-Deficit/Hyperactivity Disorder: National and State-Based Patterns and Opportunities for Policy Evaluation*, provided additional insights into the current state of ADHD diagnosis and medication in Louisiana and the country, which are important to highlight and complement the data compiled within the Department.[7]

To provide some context, Dr. Visser noted the diagnosis of ADHD has significantly and steadily increased nationwide over the past decade. In the graph below (Figure 1), each data point represents a different study in a different year, estimating at that point in time the overall, nationwide rate of ADHD diagnosis. As can be seen, the estimate rose from approximately 7 percent in 1998 to 11 percent in 2012.

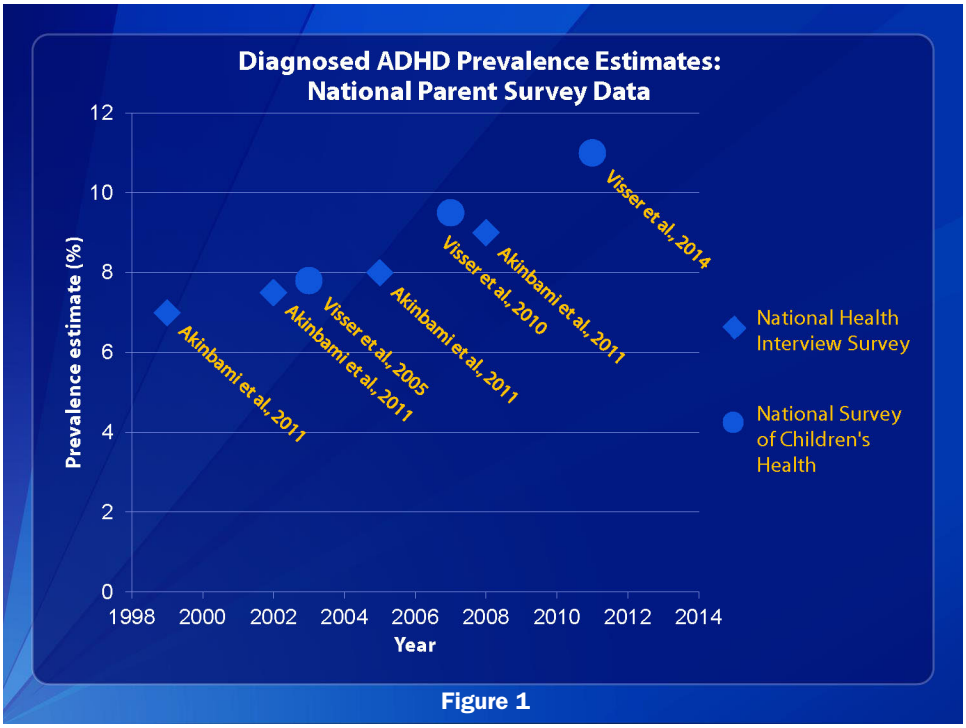


Figure 1

Demographic Patterns in ADHD Diagnosis and Treatment

CDC data also highlights age-related patterns in the diagnosis and treatment of ADHD. The national data in Figure 2 is presented separately for boys (on the left) and girls (on the right). As can be seen, rates of current ADHD diagnosis (the combination of the green and red portion of each bar) peak at age 11 for boys and age 14 for girls but then decline somewhat through the teen years. Rates of ADHD medication use (the green portion of the bars only) follow a similar age pattern.

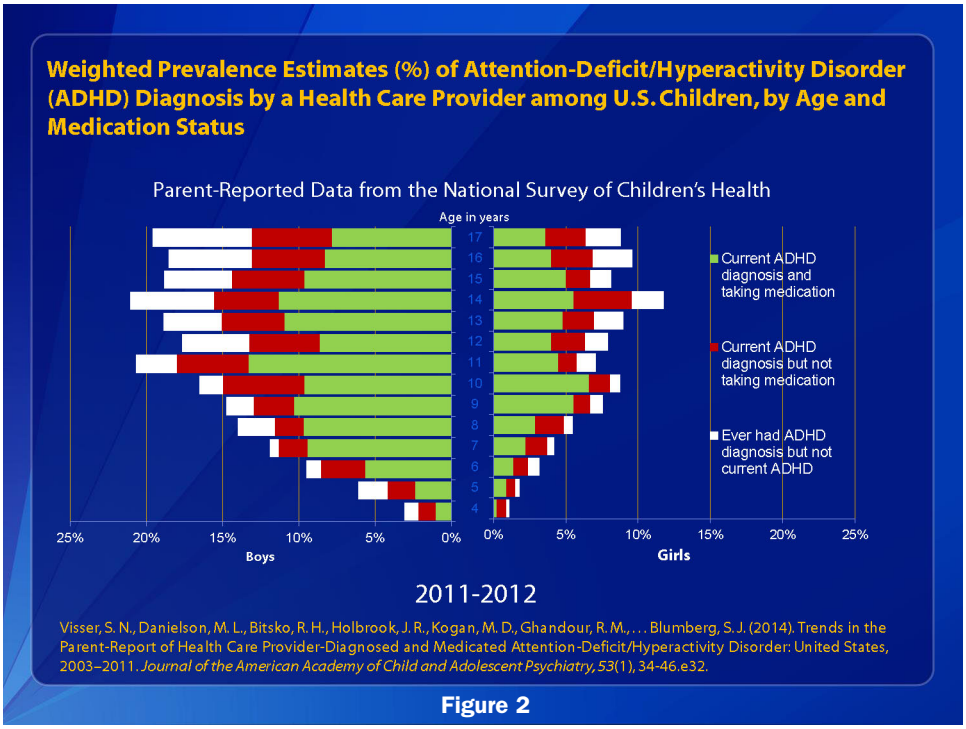


Figure 2

7 This presentation was developed by Dr. Visser and her colleagues on the Child Development Studies Team with the National Center on Birth Defects and Developmental Disabilities, Division of Human Development and Disabilities with the Centers for Disease Control and Prevention. Contributors included Joseph Holbrook, PhD and Melissa Danielson, MSPH. (The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.)

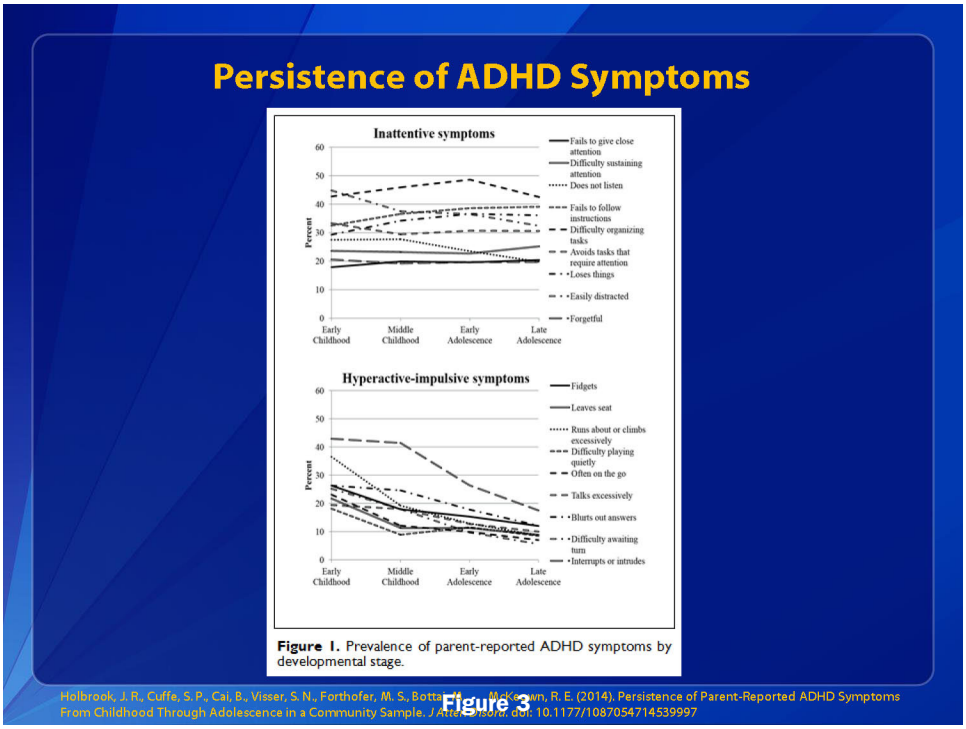


Figure 3

This age pattern in ADHD diagnosis and prescriptions coincides with data on the progression of a particular type of ADHD symptoms over time. ADHD symptoms are generally categorized into two groups: symptoms of *hyperactivity* and symptoms of *inattention*. As can be seen in Figure 3, many studies have found that the *inattentive* symptoms of ADHD remain relatively consistent across childhood. However, the pattern is very different for the *hyperactive* symptoms of ADHD. These hyperactive symptoms are more prevalent in younger children and around middle-childhood they begin to decrease steadily through the teen years. The fact that this pattern (hyperactive symptoms increasing in early to middle childhood, then decreasing) roughly matches the pattern of medication rates, peaking and then decreasing in the teen years, suggests that, in practice, ADHD may be more commonly diagnosed and treated in response to the *hyperactive* symptoms of ADHD. When these hyperactive symptoms began to decline for a child, ADHD medication use may be discontinued, even if the inattentive symptoms remain.

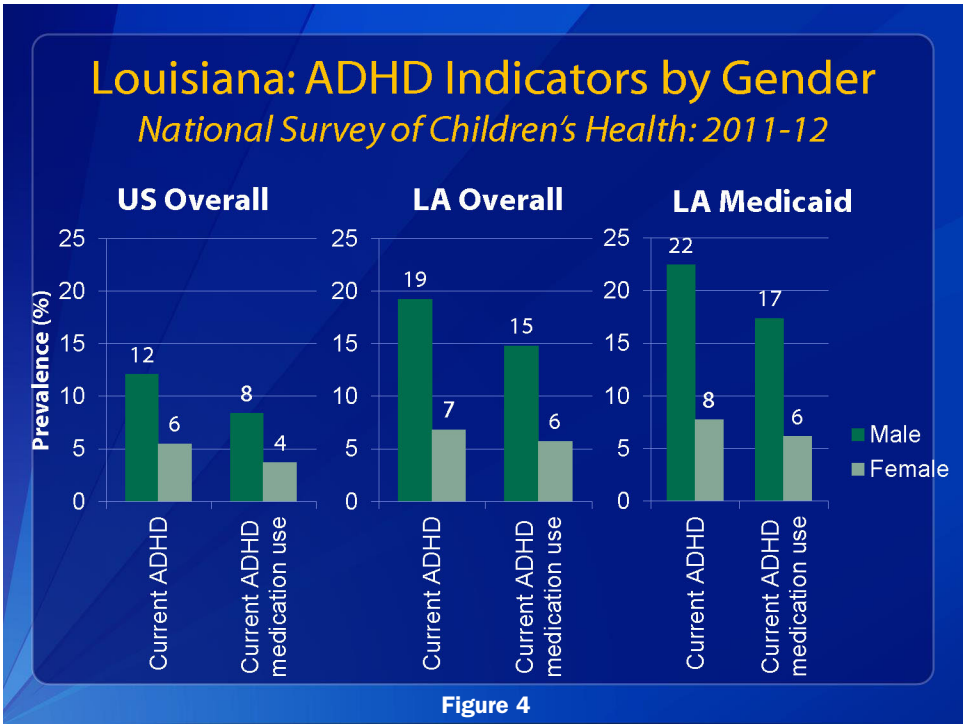


Figure 4

Data from the CDC also illuminates differences in ADHD diagnosis rates by gender and insurance type (Figure 4). In line with national trends, ADHD in Louisiana is more commonly diagnosed among boys. In addition, rates of ADHD diagnosis and treatment in Louisiana are higher among children receiving Medicaid than in the population as a whole. These two trends combine when analyzing the data on boys with Medicaid. According to 2012 data, 22 percent of boys receiving Medicaid in Louisiana were currently diagnosed with ADHD, and 17 percent of all boys on Medicaid were currently taking ADHD medication.

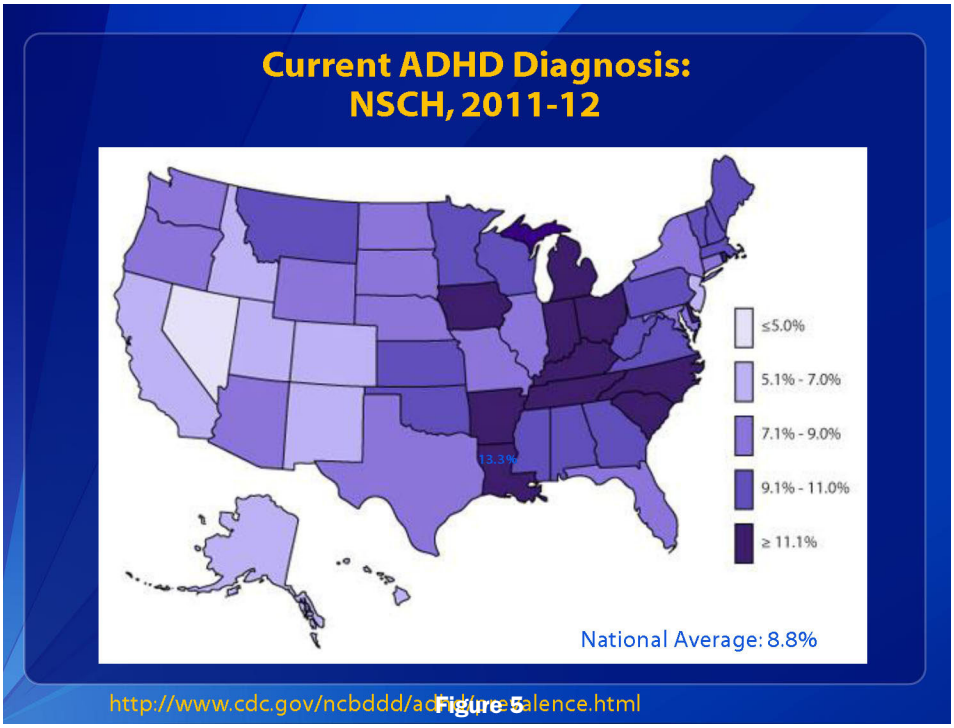


Figure 5

Louisiana vs. the Nation

As we know, the nationwide increases in ADHD diagnosis do not tell the whole story. There are striking state-level and regional differences in the prevalence of ADHD diagnosis. Figure 5 shows rates of ADHD diagnosis by state, with Louisiana at 13.3 percent, the third-highest rate of ADHD diagnosis in the nation.

Similar state-level differences are found when examining rates of medication use in the treatment of ADHD. As seen in Figure 6, in some states (most notably in the West) less than 65 percent of individuals with an ADHD diagnosis were currently taking medication for ADHD. In Louisiana, however, this rate was 78.7 percent. The combination of Louisiana's high rates of ADHD diagnosis and medication treatment for ADHD have resulted in 10.4 percent of children in Louisiana (ages 4-17) having taken medication for ADHD in 2012. This was well above the U.S. average (6.1 percent) and ranks Louisiana as the highest in the nation for medication treatment of ADHD in children.

Preschool Children

Dr. Visser's presentation also highlighted issues related to the diagnosis and treatment of preschool children. Very young children are an important area of focus in any investigation of ADHD diagnosis and treatment. Diagnosis of ADHD in very young children is less reliable than diagnosis in older children and research on the efficacy of medications for this age group is less conclusive. Therefore, the treatment recommendations for this age group differ from those for older children, with behavioral therapy being recommended as the first line of treatment (before medication) for children under the age of 6.

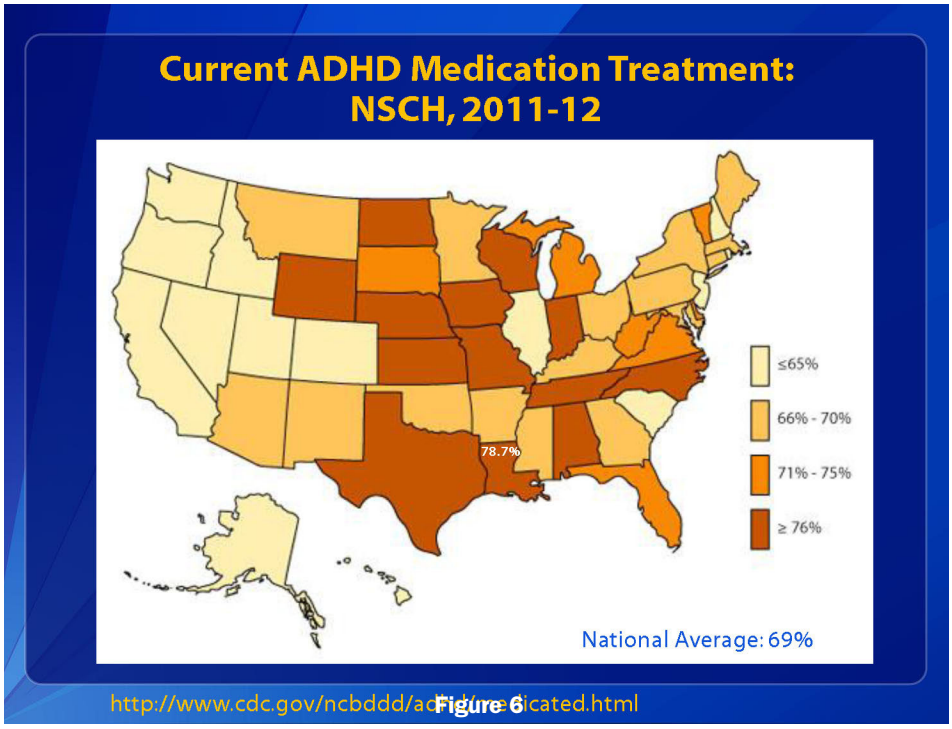


Figure 6

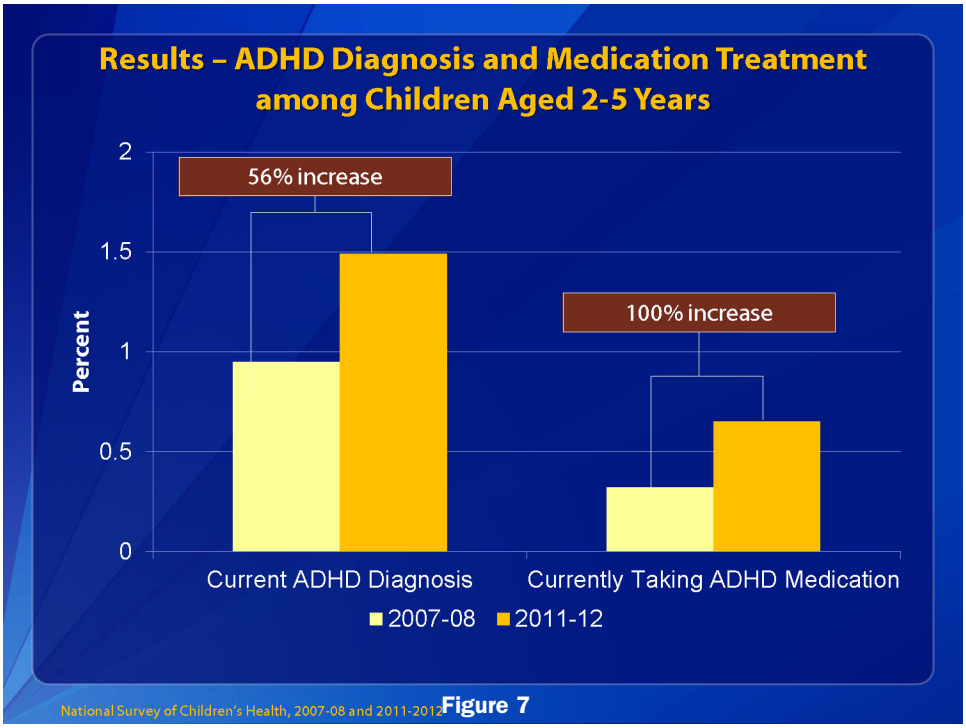


Figure 7

Given these concerns, the national data is striking. As seen in Figure 7, between 2008 and 2012 the rate of ADHD diagnosis in children aged 2-5 increased nationally by 56 percent. Even more dramatically, the rate of ADHD medication treatment for children aged 2-5 increased nationally by 100 percent.

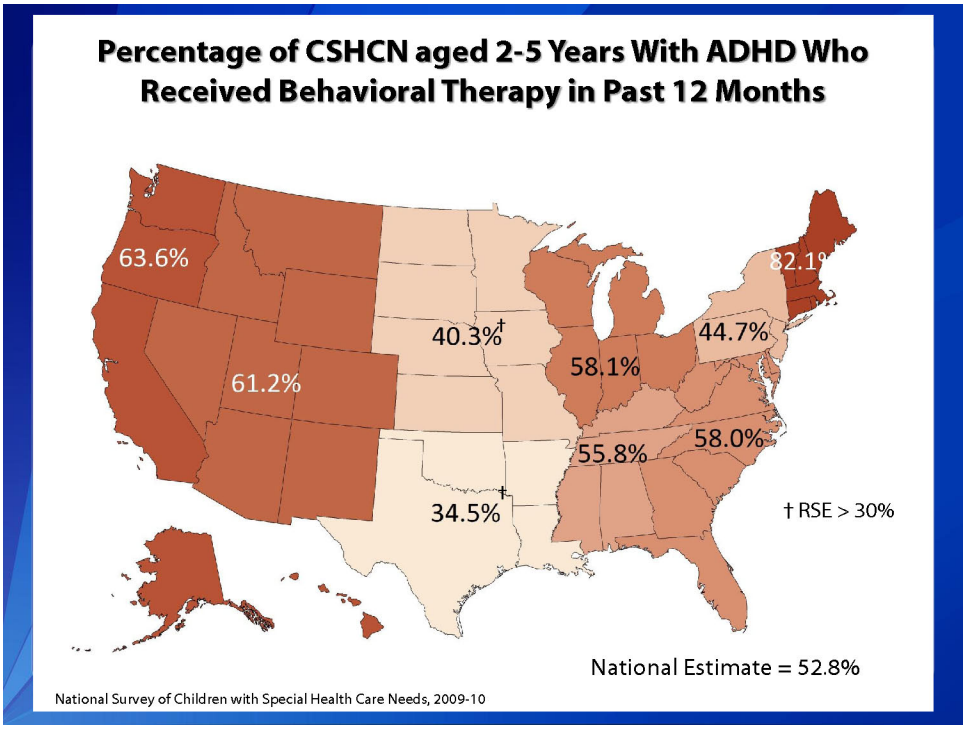


Figure 8

It is difficult to drill down further to identify state-level differences in diagnosis and treatment for this age group, given the limitations of data collection and reliability when the number of diagnosed children in this age group is relatively small. However, while CDC data was not able to reliably drill down to the state level on more specific findings, they were able to note regional trends. For example, in Figure 8, regional differences are evident in the percentage of children aged 2-5 years with an ADHD diagnosis who have received behavioral therapy in the past year. Louisiana is grouped within the region with the lowest rate of behavioral therapy for preschoolers with ADHD; only 34.5 percent of preschoolers with ADHD in this region, which includes La., Texas, Okla. and Miss., received behavioral therapy in the past year. Given that behavioral therapy is recommended to be the first line of treatment for ADHD in this age group, this is a concerning statistic. It suggests best practices for treatment of this age group are not consistently followed.

Louisiana Medicaid Data from the DHH Center for Population Health Informatics

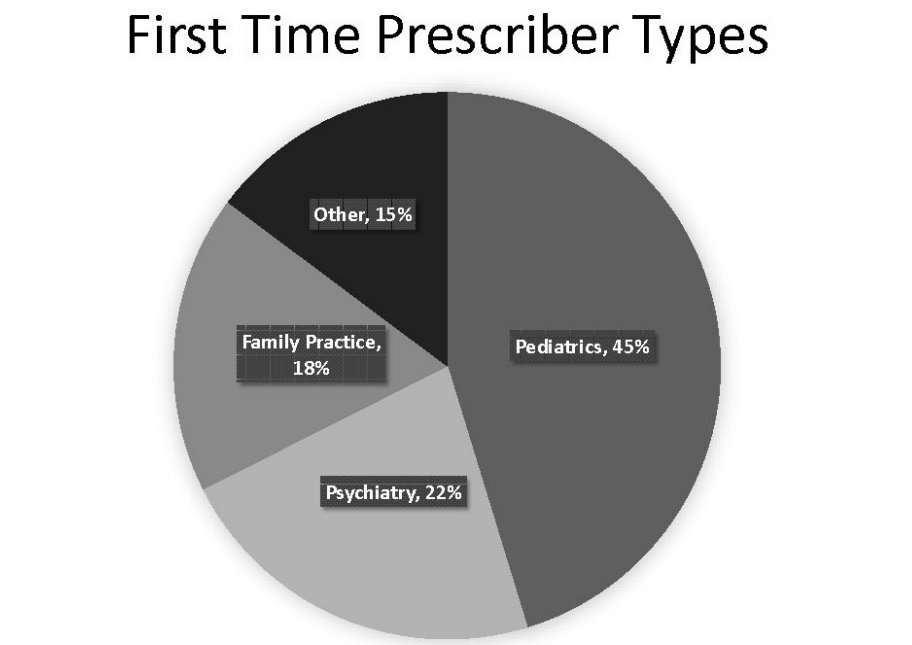
Data from the CDC and the Express Scripts report are able to illuminate nationwide trends and place Louisiana's data within the context of other states. To further increase understanding of ADHD diagnosis and treatment, DHH was also able to harness data

collected at a local level. To that end, the Department of Health and Hospitals' Office of Public Health utilized its Center for Population Health Informatics. Under the direction of Joseph Foxhood, Ryan Bilbo, GIS Manager and Chief Data Officer, spent the past year looking at ADHD prescription rates in the Medicaid population in Louisiana.[8]

The Center has created a picture of the demographic and geographic patterns of ADHD prescriptions among Louisiana's Medicaid children.

Key points include:

- Sixty-four percent of children aged 4 through 18 in Louisiana were, at some point in 2013, enrolled in Medicaid.
- In Louisiana 12.9 percent of children on Medicaid were prescribed a medication for ADHD.
- The highest rates of ADHD prescriptions were found in white, male 10-year-olds (35.8 percent).
- Children born in September were 26 percent more likely to have an ADHD prescription than those born in October.
  - The birth date cut-off for early entry into kindergarten is September 30.
- ADHD prescription rates vary across geography, and distinct differences are apparent across the nine DHH Regions.
  - Region 5 (the Lake Charles area) had a rate of 19.7 percent, twice as high as Region 8 (the Monroe area), which had a rate of 9.8 percent.



Source: MDW, Medicaid ADHD Rx (by Dosage Days Supplied and specialty/subspecialty) from 1/1/12 through 7/31/14

Figure 9

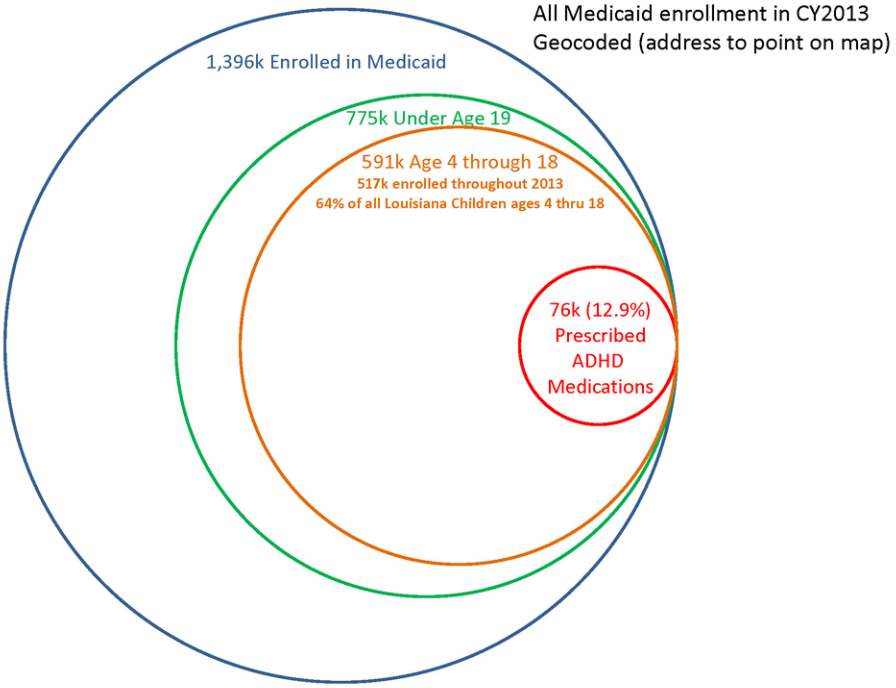


Figure 10

Relative to the U.S. rate, Louisiana Medicaid is spending approximately $30M medicating 30K more children.

Prescriber Types

The Task Force was interested to learn what types of providers in Louisiana are prescribing medications for ADHD. To answer this question,

8 He did so with assistance and support from Secretary Kathy Kliebert; partners in the Medicaid Quality Management, Statistics and Reporting section, Baifu Xu and Dr. Kangsun Lee; the Medicaid Medical Director, Dr. Rebekah Gee; Assistant Secretary JT Lane; and Dr. James Hussey.

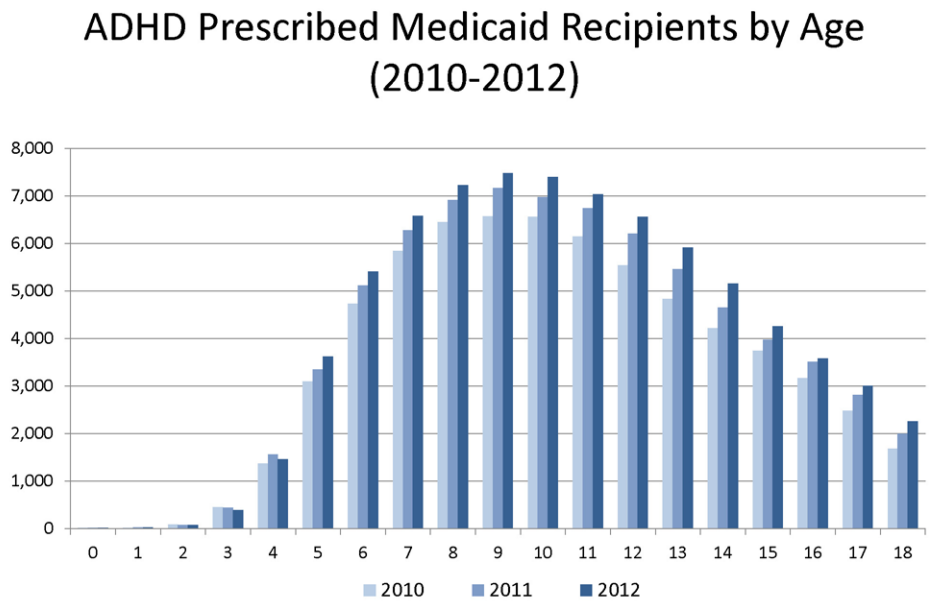


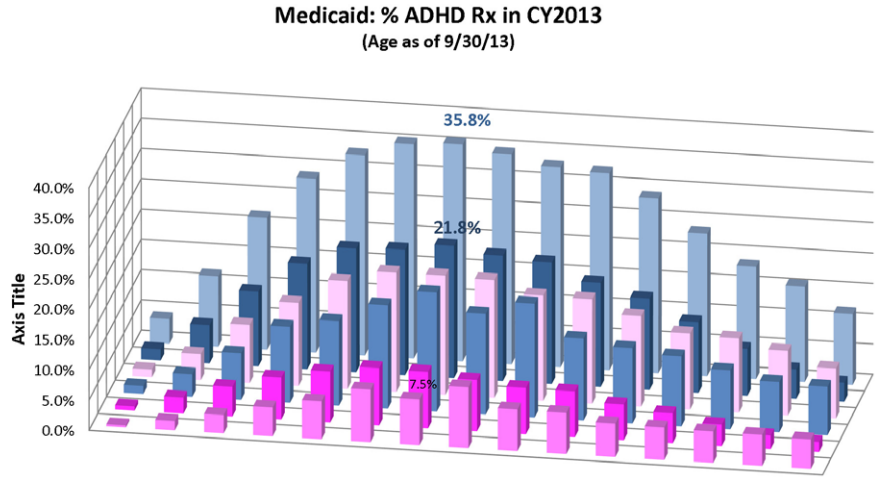
Figure 11

OPH analyzed first-time prescriptions and their associated dosage days for ADHD medications and divided these amongst specialties. As can be seen below, first-time prescribers include pediatricians, family practice physicians and psychiatrists. The majority (63 percent) of dosage days linked to first-time prescriptions were prescribed by either a pediatrician or a family practice physician; in other words, a primary care physician (PCP) as opposed to a psychiatrist. Psychiatrists accounted for 22 percent of the dosage days linked to first-time prescriptions.

When looking beyond first-time prescriptions to **all** prescriptions statewide, OPH found in claims-year 2011 that there were 1,104 prescribers of ADHD medications for Medicaid enrollees in Louisiana. In terms of dosage days, OPH found that 10 percent of these prescribers were responsible for 78 percent of the total supply of ADHD medications in the state.

Demographic Differences in Rates of ADHD Diagnosis and Treatment

OPH found 591,000, or 64 percent of Louisiana children aged 4 through 18, were on Medicaid for at least one month in 2013, and that 517,000, (87 percent of the 591,000 above), were enrolled for all 12 months of 2013, providing a large sample size.



	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Other Females	0.3%	1.5%	3.0%	4.7%	6.3%	8.7%	7.5%	10.0%	6.9%	6.8%	5.5%	5.3%	5.2%	5.1%	4.8%
Black Females	0.7%	2.6%	4.9%	6.9%	8.4%	9.5%	9.3%	8.5%	7.7%	7.6%	5.9%	4.9%	3.6%	2.3%	1.7%
Other Males	1.3%	3.7%	7.7%	12.5%	14.0%	17.1%	19.6%	16.6%	18.8%	13.5%	12.4%	11.6%	9.7%	8.3%	8.0%
White Females	1.3%	4.3%	9.6%	13.7%	17.8%	19.7%	19.7%	19.4%	17.4%	17.2%	14.9%	12.6%	12.2%	10.7%	8.2%
Black Males	1.8%	6.3%	12.3%	17.4%	20.4%	20.7%	21.8%	20.7%	20.1%	17.2%	15.1%	11.7%	7.8%	4.8%	3.1%
White Males	4.1%	11.6%	21.8%	28.7%	33.0%	35.4%	35.8%	34.6%	33.0%	32.5%	28.8%	23.5%	18.5%	15.7%	11.7%

Figure 12

Figure 11 illustrates the age distribution of prescriptions for ADHD medication in Louisiana over the course of three years (2010-2012). As can be seen, in the Louisiana Medicaid population prescriptions for ADHD medications peak at the ages of 9-10 years old and then decrease throughout the teen years. ADHD prescriptions increased between 2010-2012 across the board for all age cohorts, and this peak (at ages 9-10) remained the same over the three years of data that were examined.

In Figure 12, data on ADHD prescriptions by age are further broken down by demographic

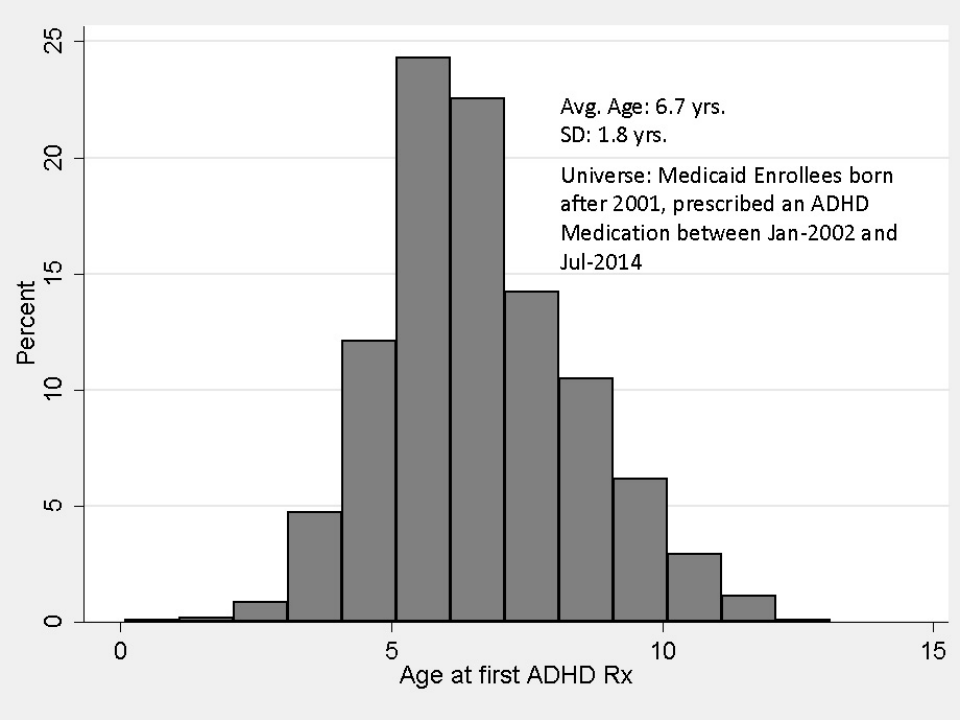


Figure 13

group. Similar to national trends, white males have the highest rates of ADHD prescriptions in the Louisiana Medicaid population. To illustrate this point, 35.8 percent of white, male 10-year-olds on Medicaid in Louisiana were prescribed medication for ADHD according to 2013 data.

The Task Force noted that the pattern of Louisiana's rates of ADHD prescriptions peaking at ages 9-10 roughly matches national age patterns, with the peak and decline of ADHD treatment following the decline of hyperactive symptoms across the late childhood and the teen years. The earlier peak and decline in LA Medicaid data may be explained by the fact that national data from the CDC include the privately insured and Express Scripts data is exclusively comprised of privately insured. The Task Force noticed the peak of ADHD medication in ages 9-10 in Louisiana also coincides with the beginning of LEAP testing.

The Task Force was also interested in learning the age at which children receive their first diagnosis of ADHD. As seen in Figure 13, data suggest the average age of the first ADHD diagnosis for Louisiana Medicaid recipients was 6.7 years old.

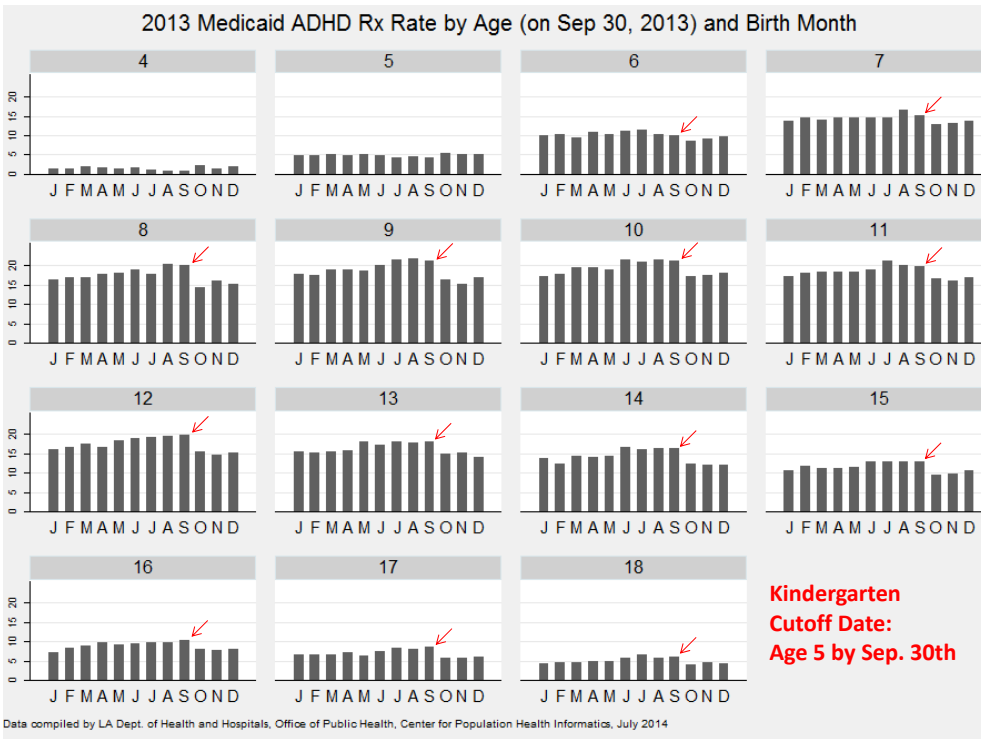


Figure 14

One additional age-related pattern was noted in the Louisiana Medicaid data. Each graph (Figure 14) shows an age group and the distribution of ADHD diagnoses across that age group according to the child's birth month. Starting with the 6-year-olds, a pattern emerges; children born in September are more likely to be diagnosed with ADHD than children born in October (on each graph, the red arrow indicates the drop-off of ADHD rates between

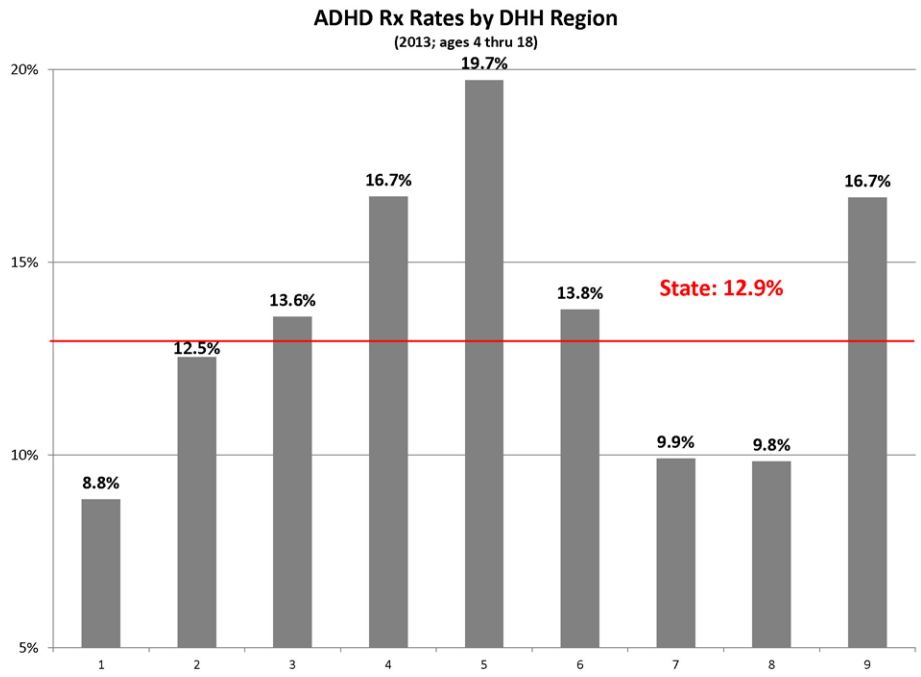


Figure 15

September-birthday children and October-birthday children). Because of Louisiana's kindergarten cut-off date (a child must be 5 by September 30 to enter kindergarten), the youngest children in a class are likely born in September while the oldest are likely born in October. Overall, children born in September were 26 percent more likely to have an ADHD prescription than those born in October. This pattern suggests some children may be diagnosed with ADHD when, in actuality, they are typically developing children who are merely behind their grade cohort in their level of attention/behavioral regulation by virtue of being younger.

Regional Differences within Louisiana in Rates of ADHD

The DHH Center for Population Health Informatics was able to use geo-coding to explore regional differences in ADHD prescriptions.

Differences at the regional level were expected to be small due to large sample size. However, unexpectedly large differences at the regional level were found. The graph in Figure 15 shows the large variations in Medicaid ADHD prescription rates among Louisiana DHH's nine administrative regions as compared to the overall state average as represented by the red line.

The map in Figure 16 shows the same data, mapped at a parish level. Generally, the southwest has higher rates than the northeast, a pattern that persists along the I-10/I-12 corridor with the exception of New Orleans.

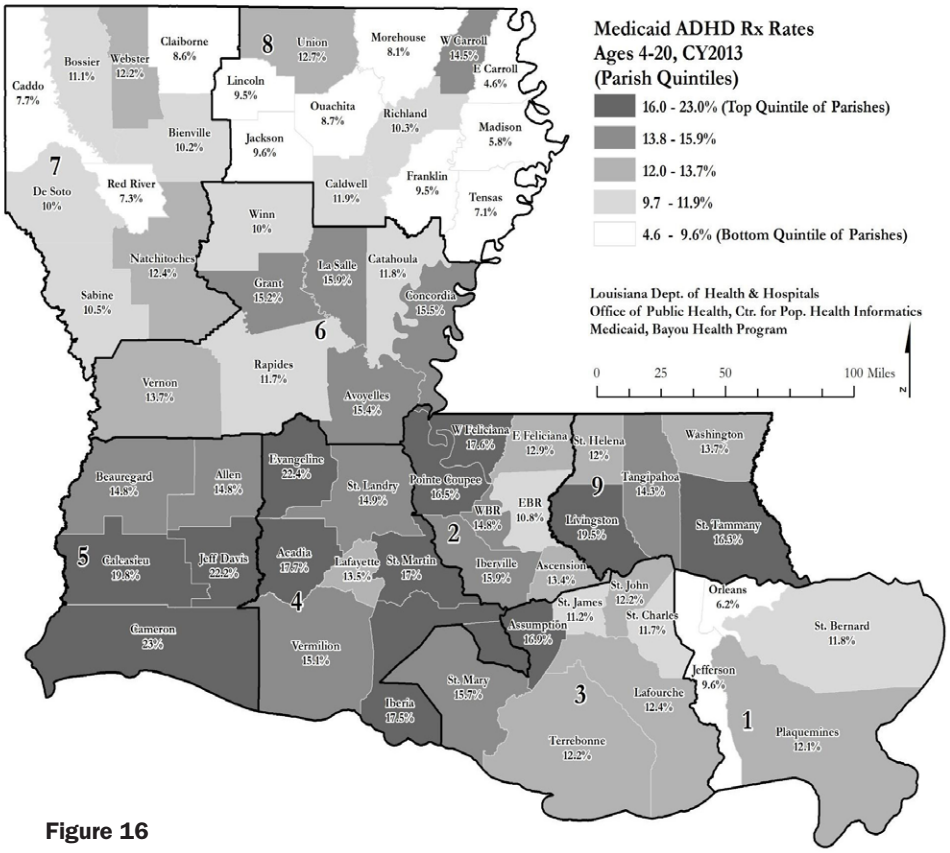


Figure 16

Seeking an explanation, OPH attempted to learn whether these regional differences were merely a function of different demographic mixes in the regions, as national data indicate that ADHD diagnosis rates are linked to age, race and gender. He developed a model to control for these factors and learn whether, when taking these demographic factors into account, any regional differences would remain. Specifically, he created a probit model to estimate the probability that a Louisiana child of a certain age (4 through 18), race (white, black or other) and gender who was enrolled in Medicaid in 2013 would be prescribed medication for ADHD that year.

In Figure 17, one can see the predicted rates in light gray (controlling for age, race and gender) alongside the actual rates in dark gray. As can be seen, some variation was explained by different age, race and gender mixes. In many cases the light gray bars representing the probability model are closer to the state mean (the red line) than the dark gray bars. In two cases, however, controlling for demographics only accentuated the regional differences; the probability rates in Regions 2 and 6 moved **away** from the mean.

This same probability model mapped at the census-tract level is shown in Figure 18. Red indicates higher than expected ADHD prescription rates, and blue indicates lower. Darker shades of red and blue indicate larger or smaller differences, respectively.

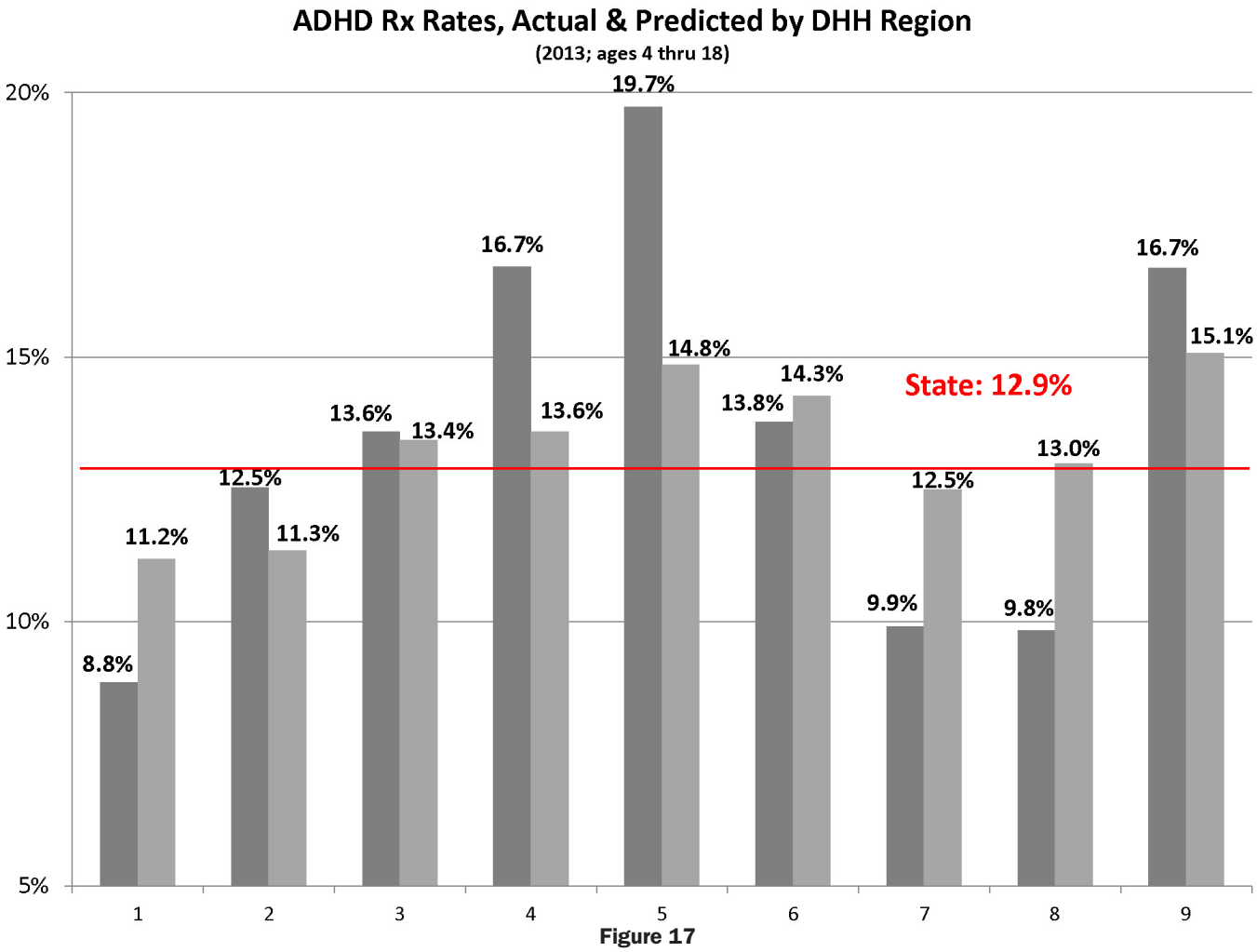


Figure 17

The expected rates were set controlling for age, race and gender mix within each census tract. Essentially, a statewide rate was estimated for each age, race and gender cohort then applied to that cohort within each census tract. There were varying rates of ADHD prescriptions which age, race and gender mix could not account for, indicating that local factors play an unexpected role.

Louisiana Dept. of Health & Hospitals,

This Census Tract Map shows the difference between the local and state rates of ADHD Rx among Medicaid enrolled (2011) under 21 (as of Jun-2011).

These rates were tallied by age, race, and gender groupings thus accounting for those effects.

Red indicates higher than state rate, blue is lower. Tracts grouped by quintile of that difference where:

- 80 - 100%ile (15 - 133)
- 60 - 80%ile (2 - 14)
- 40 - 60%ile (-4 - 1)
- 20 - 40%ile (-12 - -5)
- 0 - 20%ile (-74 - -13)

Prescription Data:
Medicaid CY2011

Enrollment Locations:
Apr-2012 MEDS

Boundaries:
U.S. Bureau of Census, 2010 Tracts

Basemap:
Esri, DeLorme, Navteq

0 15 30 Miles

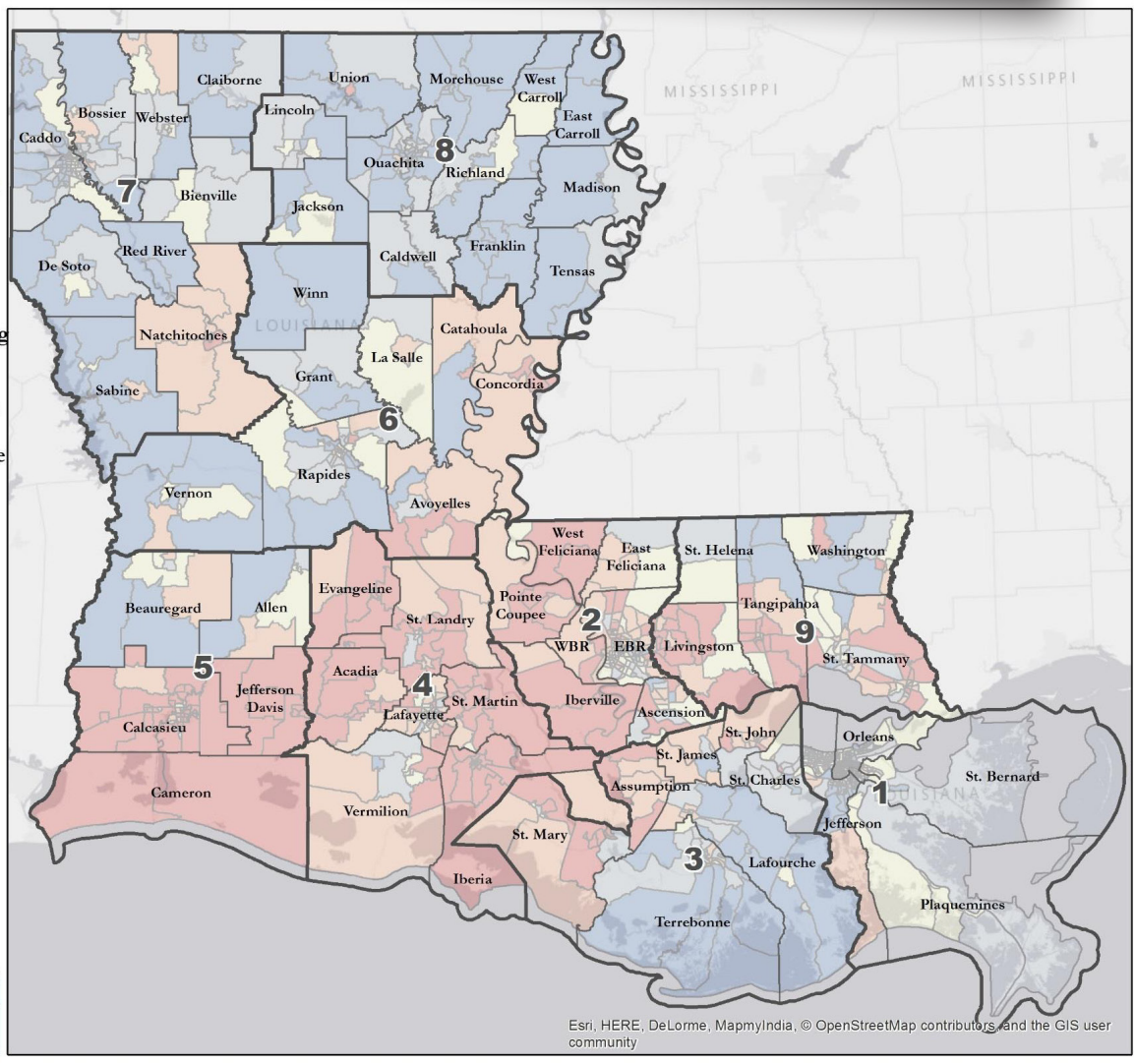


Figure 18

Zooming in on the map (see Figure 19), Mr. Bilbo found Region 8 had the lowest number of ADHD-prescribed Medicaid enrollees relative to state rates for age-race-gender cohorts. In this map, each census tract is labeled with the difference between the actual and predicted number of ADHD prescriptions. For example, the top-right census tract below is labeled with "-33." This means in this tract, there were 33 **fewer** children with ADHD prescriptions than had been predicted based on the age, race and gender mix of children within that census tract.

Mr. Bilbo found Region 5 had the highest number of ADHD-prescribed Medicaid enrollees relative to prediction. Again, each tract is labeled with the difference between the actual rates and the predicted rates of ADHD prescriptions. For example, the top-right census tract below is labeled with "93." This means in this tract, there were 93 **more** children with ADHD prescriptions than had been predicted based on the age, race and gender mix of children within that census tract.

To study the regional differences further, OPH looked at an area of the state that had both census tracts with higher-than-predicted rates and tracts with lower-than-predicted rates. East Baton Rouge Parish had both.

Figure 22 focuses on this area at higher resolution and relative to school attendance zones for three elementary schools. This was

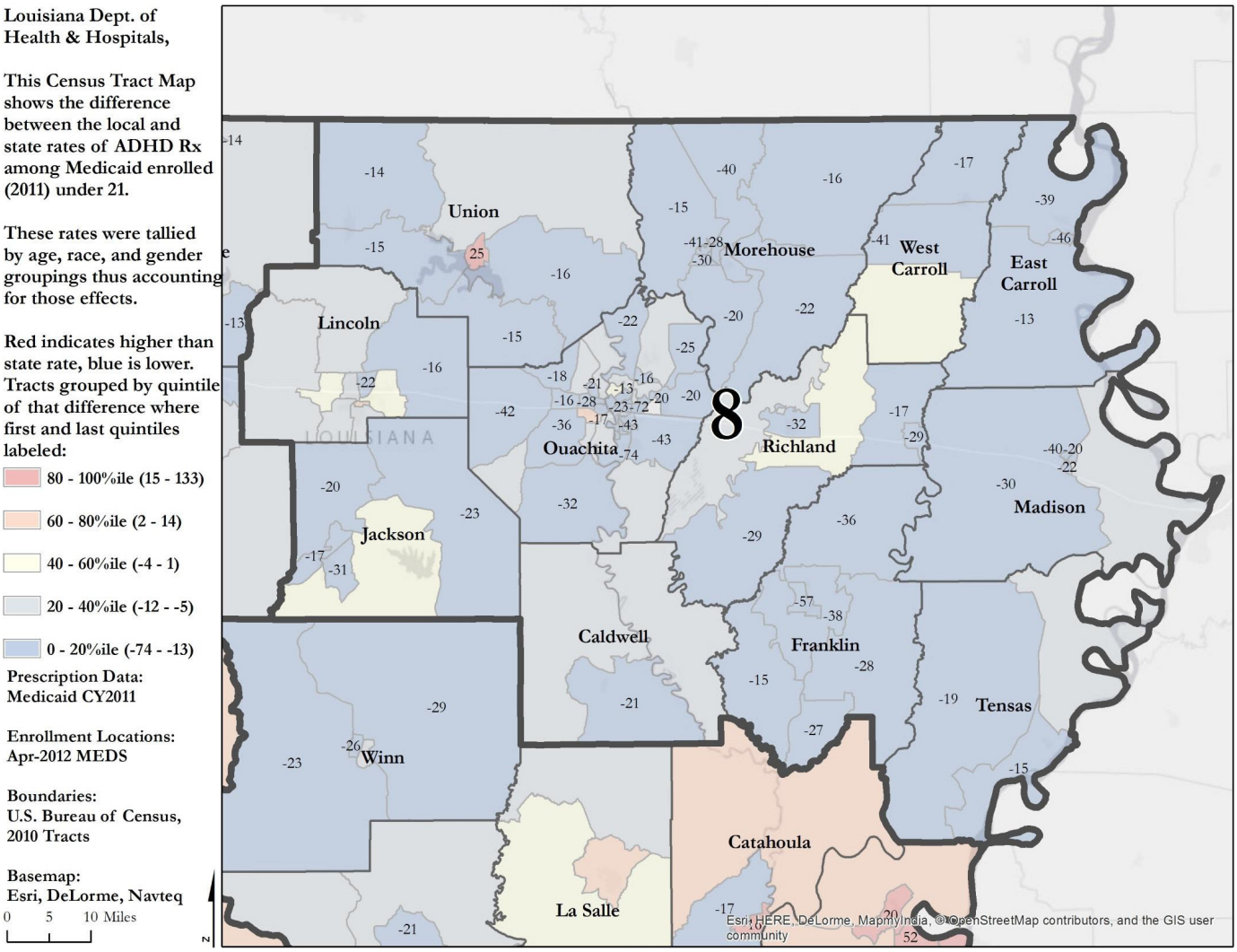


Figure 19

studied because schools have been discussed as a possible driver of ADHD prescriptions. The lack of correlation between school attendance zones and local ADHD prescription rates indicates that hot spots do not necessarily follow attendance zones in this particular area.

Another hypothesis to investigate was whether individual or small groups of prescribers may affect unusually high rates in

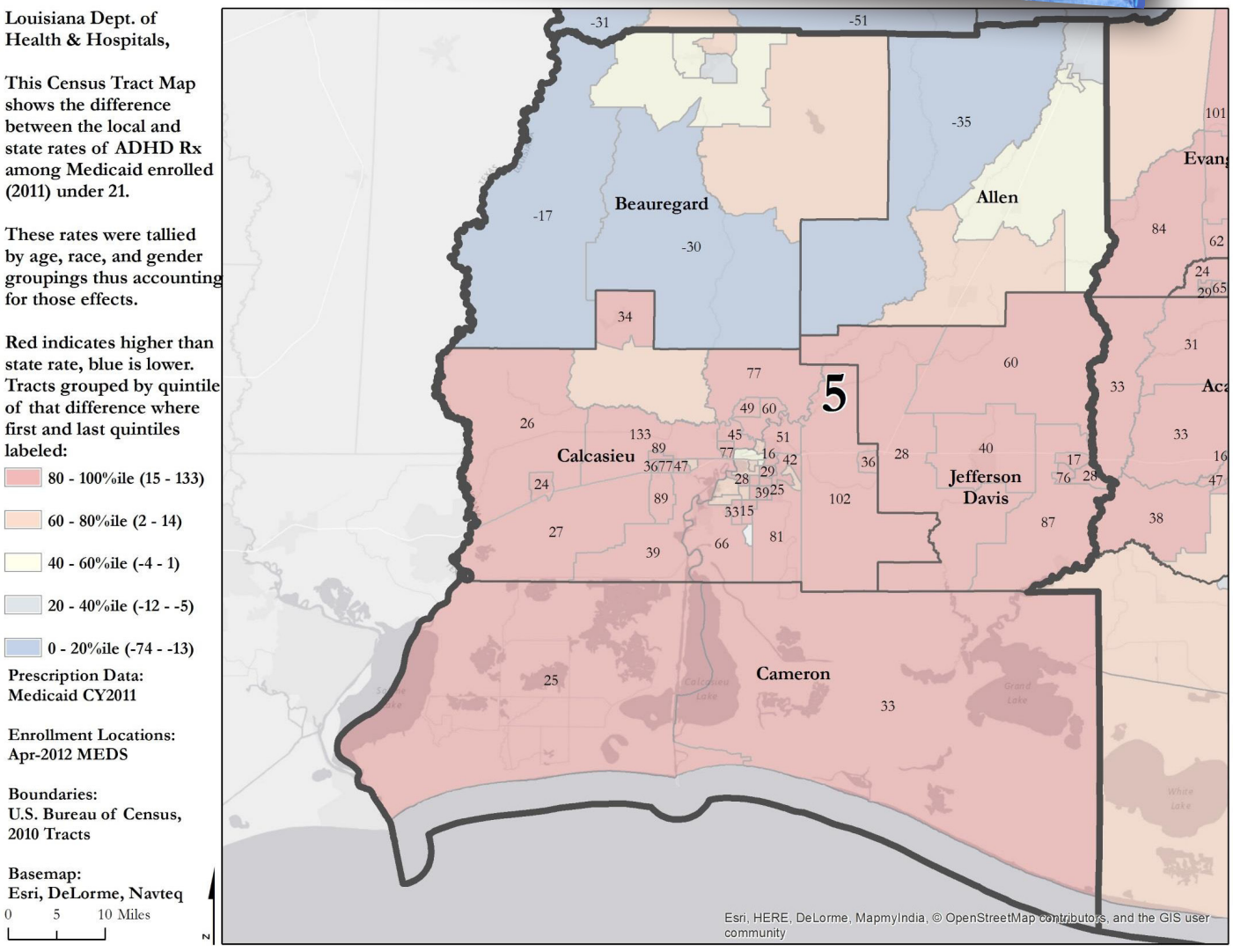


Figure 20

their areas. This seemed like a reasonable hypothesis given that, statewide, it was found that 10 percent of prescribers were responsible for 78 percent of the supply of ADHD medications in the state (according to 2011 data). In the Glen Oaks area one can see the largest first-time prescriber accounted for approximately 10 percent of cases (Figure 23). Prescribing at relatively young ages was not of particular concern here as the average age at first prescription here was close to seven.

In summary, among the Medicaid population in Louisiana, geographic disparity in ADHD prescription rates is pronounced and cannot be fully explained by demographic variations. Additional explorations at a smaller scale suggest they may not be accounted for by school attendance zones either. In this particular locality (a small area within East Baton Rouge Parish), geographic differences did not seem highly attributable to a small number prescribers. Further investigation would be needed to determine whether lone actors contribute to strong regional differences in other areas of the state.

Further questions remain and the Task Force asked the Center for Population Health Informatics to explore the additional questions:

- What are the effects of network adequacy on the regional differences. Are there issues accessing primary care? Are there enough behavioral specialists? How might provider mix contribute?

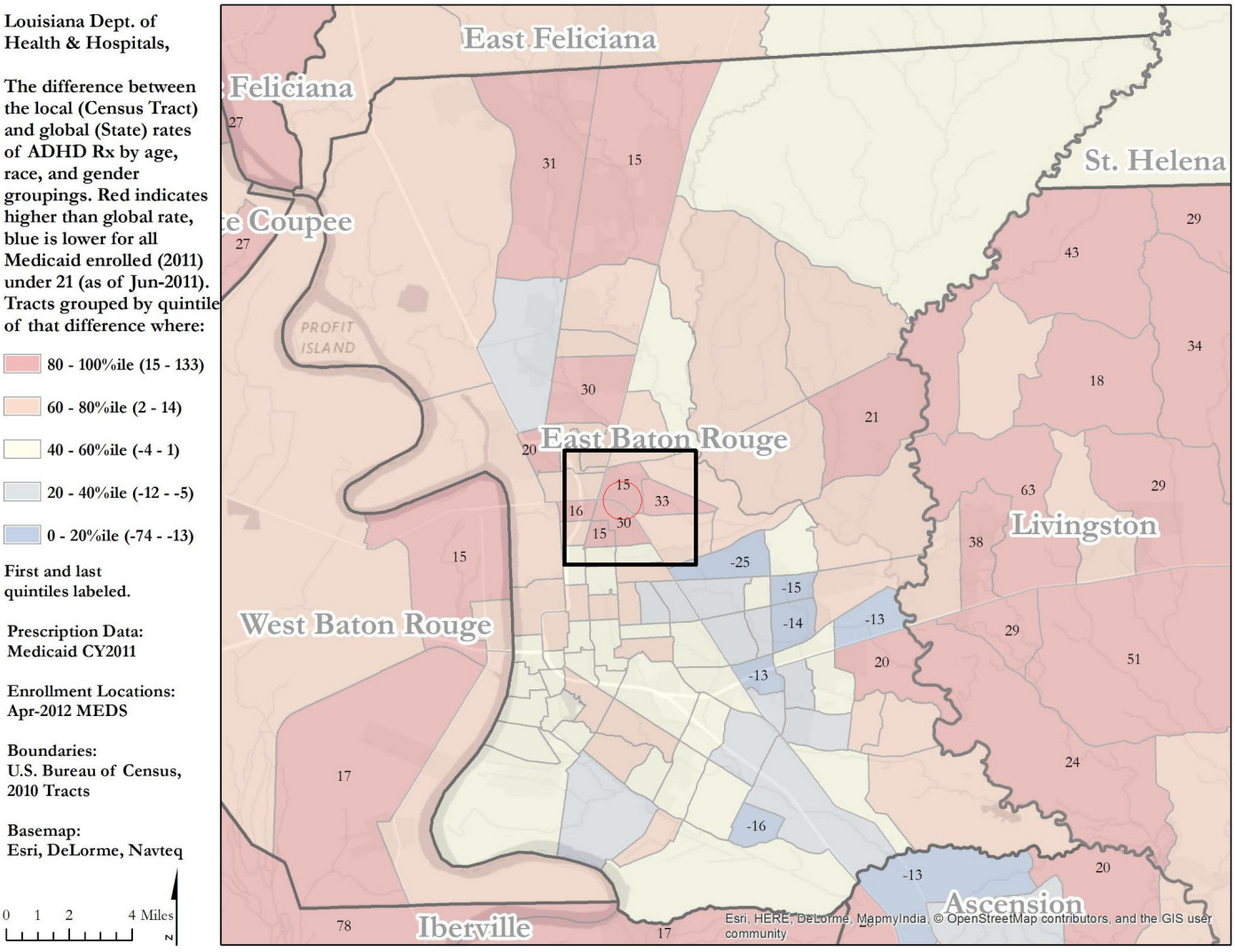


Figure 21

- How many receiving ADHD prescriptions are also receiving or have received behavioral therapy?
- How many receiving ADHD prescriptions were diagnosed with ADHD along with Autism?
- When linking to school data to inspect grade **and** birth month, do the results change? Are there school performance effects.

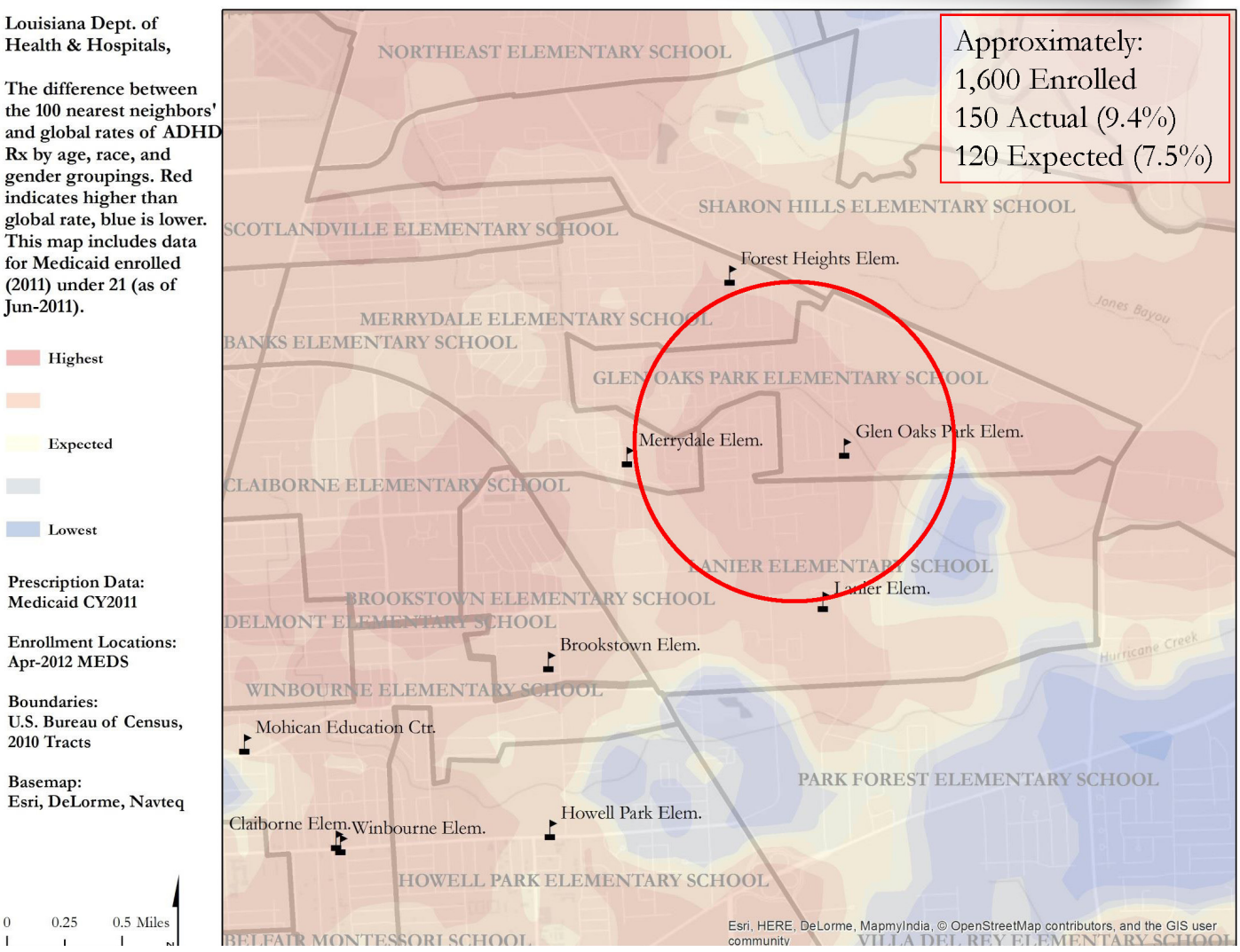


Figure 22

Data to answer these questions are not yet available, but the Center for Population Health Informatics will continue to work on them as the Task Force's work continues in order to ensure data are informing the Task Force's recommendations.

Recommendations

The Task Force identified key goals that would need to be achieved to align Louisiana with national best-practice guidelines and ensure the effective diagnosis and treatment of

Louisiana Dept. of Health & Hospitals,

The difference between the 100 nearest neighbors' and global ages at first ADHD Rx. Red indicates younger than global rate, blue is older. This map includes data for Medicaid enrolled (2011) under 21 (as of Jun-2011).

Prescriber	Count	Min	Max	Avg	SD
Prescriber 1	16	4.6	11.3	6.3	1.5
Prescriber 2	7	5.8	9.0	7.5	1.1
Prescriber 3	7	4.6	6.8	5.8	1.0
Prescriber 4	5	5	7.5	6.4	1.1
Prescriber 5	5	7.2	9.9	8.9	1.3
Prescriber 6-57	110	4.1	10.2	7.1	0.5

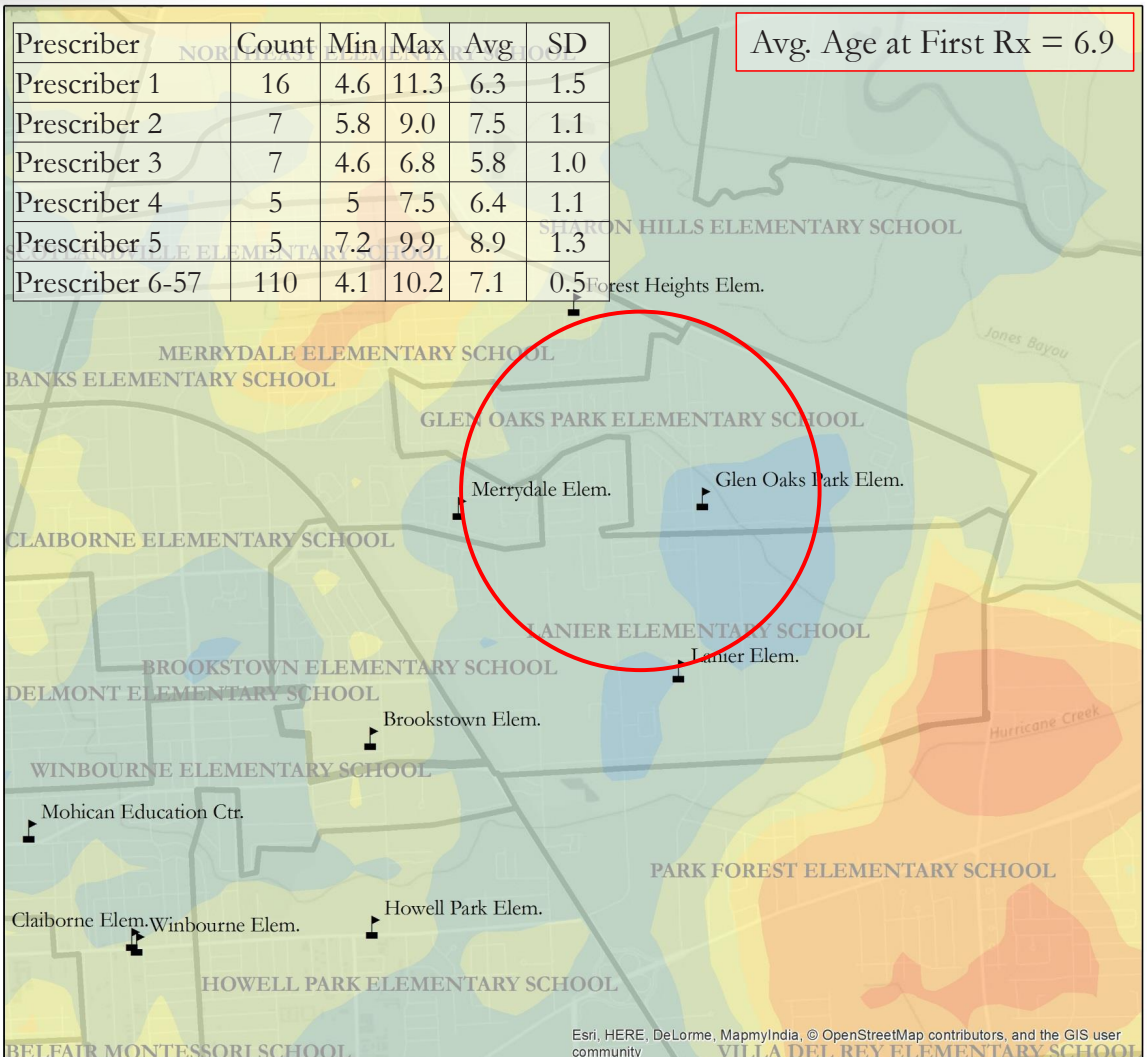


Figure 23

ADHD. The three major goals are **to increase the accuracy of ADHD diagnosis**, **to increase access to behavioral therapy for ADHD**, and **to increase alignment of pharmacological treatment with evidence-based guidelines**. Each of these goals will be outlined below, with a summary of the rationale for each. The report will then describe objectives necessary to achieve each goal, as well as specific policy actions that could serve as levers to achieve each objective and goal.

Goal 1: Increasing the accuracy of ADHD diagnosis vs. other disorders or typical variation

Rationale

A review of the data on ADHD diagnosis and treatment both nationally and in Louisiana and a wide-ranging exploration of the literature on ADHD instructed the Task Force that a key component in ensuring ADHD medications are used effectively is to ensure that ADHD is diagnosed accurately in the first place. High rates of ADHD diagnosis may result from **misdiagnosis** and **overdiagnosis**.

Misdiagnosis can occur all too easily, particularly in children. Children with ADHD generally gain the attention of health care providers as a result of the difficulty they experience in managing and regulating their own behaviors (behavioral dysregulation). However, behavioral dysregulation is not unique to ADHD. It is a very common symptom presentation in children that can result from any of a number of behavioral health concerns. If children are misdiagnosed with ADHD, they may not receive the help they need for the depression, anxiety, trauma or family problems that actually underlie their behavior.

Overdiagnosis is also a concern when it comes to ADHD. ADHD is diagnosed when children cross a certain threshold on the continuum of inattention and hyperactivity. That threshold between typical variation and an actual disorder of ADHD can be difficult to define. Children may be diagnosed with ADHD when they more accurately belong on the other side of the line. This may occur when adults expect or a particular setting demands more attention, more regulation and less physical activity than what is actually developmentally appropriate for children of a particular age.

Excellent care for children necessitates making the correct diagnosis, so that children get the care and support they truly need. In other words, if the problem that is troubling children is misunderstood, then the wrong solution will be offered. Therefore, a key step in any approach aimed at ensuring effective treatment for ADHD is to increase the accuracy of ADHD assessment and diagnosis. This would mean that:

- youths with ADHD would be accurately identified,
- youths who did not have ADHD but experienced behavioral dysregulation stemming from a different condition would be identified and correctly diagnosed and
- youths whose behavioral dysregulation was on the high end of normal but who did not meet clinical criteria for ADHD would not be diagnosed and prescribed treatment for a disorder they did not have.

Objectives: *Increasing the accuracy of ADHD Diagnosis vs. other disorders or typical variation*

In practice, increasing the accuracy of ADHD diagnosis can be accomplished by:

- primary care physicians aligning their ADHD assessment practices with national guidelines, such as those provided by the AAP;
  - This includes use of standardized assessment tools and procedures, and screening and assessment to rule out alternate causes of behavioral dysregulation.
- primary care physicians consulting with mental health specialists on more complex cases and/or referring more complex cases to mental health clinicians for a more comprehensive assessment;
- educating physicians, teachers and parents about ADHD to help them distinguish it from other disorders or typical variation; and
  - Education on developmentally appropriate expectations for attention, regulation, and physical activity should be included.

- increasing the ability of schools, parents and others to understand and support youth with typical development and variation in attention, regulation and need for physical activity.

Specific Levers for Change: *Increasing the accuracy of ADHD Diagnosis vs. other disorders or typical variation*

Drilling down even further, the Task Force, with the input of a variety of community members and stakeholders, identified a wide range of potential levers that would make the above objectives possible. The actions below do not comprise a comprehensive list but they do provide a samples of specific policy changes and tasks that could be undertaken in order to achieve the above objectives.

- Potential actions at the DHH level include the actions listed below.
  - Examining Medicaid policies on coding and billing procedures to support good assessment practices (e.g.: the use of standardized measures, assessments and case discussions) and encouraging collaboration with and among Bayou Health plans to set standard procedures that support these good assessment practices.
  - Examining system-wide need for mental health consultation and/or skilled mental health assessment by a licensed mental health professional (LMHP).
    - Exploring other state approaches that support increased access to mental health assessment.
    - Exploring additional approaches and funding sources for mental health consultation, including possible Medicaid funding for a billable consultation service.
  - Partnering with educational institutions on utilizing scholarships or loan repayment support to incentivize child mental health professionals to serve low-resource areas and provide needed services.
  - Supporting the provision of continuing medical education (CME) to providers around ADHD assessment, differential diagnosis and treatment, and/or encouraging health plans to do so.
  - Exploring avenues to provide access to care for parents in cases when parental mental health issues may be an underlying problem presenting as a child's dysregulated behaviors.
    - As studies show that children's diagnoses may resolve if parental mental illness is effectively treated, leveraging all points of entry may improve outcomes. For example, when a parent brings their child in to a physician or mental health clinician for evaluation for a psychiatric diagnosis of the child, this can serve as an entry point for the parent to be screened and referred to mental health care. Parents may, at this point, may also be linked to peer support professionals who can serve as care navigators and assist parents in accessing appropriate services and support.
- Developing performance measures and expectations for health plans regarding the use of best practices, including health plan use of incentives to increase best practices from providers.
  - Best practices for health plans are noted below under "Potential actions at the Health Plan level."
- Potential actions at the Health Plan level are listed below.
  - Working with DHH (OBH and Medicaid) to develop policies on coding and billing procedures to support good assessment practices.
    - For example, working to develop coding and billing procedures that will support:
      - evaluation for ADHD to be initiated by a primary care physician (PCP) and then completed more comprehensively by a mental health clinician on the same day;
      - the administration and scoring of standardized measures for ADHD to be completed by both a parent and a teacher;

- case discussion with teachers and other collateral sources of information about a child's behavior in various settings; and
- reimbursing PCPs for visits that do not include the child (e.g. for psychoeducation about ADHD, information about parenting a child with ADHD, behavioral intervention training, etc.).

- Providing access to child psychiatry consultation or developmental behavioral pediatric consultation to primary care providers to assist with more complicated diagnoses.
- Using performance expectations and incentives for providers to:
  - increase physician use of standardized measures from multiple reporters to make ADHD diagnosis;
  - increase physician screening to identify and rule out alternative causes of behavioral dysregulation in children, including screening for other behavioral health disorders affecting the child and parental mental health concerns, such as parental depression;
  - increase referrals to behavioral health care providers for both children and parents following positive screens for other behavioral health disorders and/or parental mental health concerns;
  - increase physician education to parents regarding ADHD vs. typical variation, including education on developmentally appropriate expectations for attention, regulation and physical activity;
  - increase physician education to parents regarding non-pharmacological strategies to decrease behavioral dysregulation, such as attention to sleep, diet, media use and physical activity;
  - increase access to, linkages with, and co-location of mental health clinicians in primary care; and
  - increase the use of peer support professionals to provide peer support to parents and serve as care navigators to assist parents in accessing the range of services available for children and families.

- Potential actions in collaboration with other child-serving agencies (DOE, DCFS, OJJ) are listed below.
  - Encouraging collaboration among the child-serving agencies (DHH, DCFS, OJJ and DOE) to clarify state-level policy and guidance that directly addresses ADHD.
    - In current statute and policy, ADHD is addressed minimally and often indirectly. For example, guidance on screening and 504 accommodations for ADHD within the education system is provided indirectly based on a bulletin covering "dyslexia and related disorders," which does not specifically mention ADHD.
  - Increasing professional development for teachers and other school personnel, such as school social workers, principals, assistant principals, etc., on ADHD in relation to both typical development of behavioral and emotional regulation and developmentally appropriate expectations for attention and physical activity.
  - Collaborating with DOE to develop a toolkit of guidance for schools related to ADHD.
    - Such a toolkit would be voluntary, but may be popular with school leaders if it provides valuable guidance in areas that can otherwise be unclear.
    - Such a toolkit could provide information on:
      - developmentally appropriate expectations for attention, regulation and physical activity;
      - screening procedures that more accurately identify youth with ADHD;
      - strategies that may be used both in the classroom and school-wide to benefit youths with ADHD as well as youth with typical variation in attention and behavioral regulation, including strategies to integrate physical activity into the classroom and school day in order to meet

students' developmentally appropriate needs for physical activity;

- funding sources that schools may be able to direct towards further training for staff related to ADHD; and
- creating linkages with private providers of mental health services for youth.

- Assisting schools to structure and promote school breakfast and lunch programs so more children take advantage of the service.
  - There is evidence that school lunch programs do not serve all food-insecure youth and that hunger interferes with attention. Many districts are already expanding access to these programs using the federally-funded community eligibility option that is newly available to districts. This option allows all students to receive free breakfast and lunch if 40 percent or more of the students in a given school are eligible. When all students have access to the program, the social stigma associated with free meals is alleviated, which may in turn increase a child's willingness to participate. Research has suggested that other structural changes, such as offering breakfast in the classroom and scheduling lunch after recess, may also help increase students' utilization of the breakfast and lunch program.
- Working with DCFS to develop a plan for better access to care for this vulnerable population and ensure they are receiving adequate evaluations and treatment.

Goal 2: Increasing access and linkage to behavioral therapies and parent support

Rationale

When used appropriately, pharmacological treatment for ADHD is often highly effective and can be the best treatment approach for managing the symptoms of ADHD. However, at times, ADHD medication is prescribed not because it is the best option, but because it is seen as the only or most logistically feasible option. When parents, doctors and teachers do not have access to or are unaware of a robust system of evidence-based behavioral therapies for children, they will be left with a prescription as their best or only treatment option. National best-practice standards strongly suggest that, to reduce unnecessary ADHD diagnosis and prescribing, expanding certain areas of behavioral health services for children will play a key role. In fact, national data suggests an inverse relationship between access to behavioral health services and use of ADHD-related medications.

One particular best practice guideline has received great attention from the Task Force: that behavioral therapies with empirical support should be the first line of treatment for children under the age of 6. Recommended by the AAP, these therapies are termed *evidence-based practices*, or EBPs. The use of EBPs is well-supported by research and has wide consensus across professional groups nationwide. If Louisiana's ADHD initiative is to succeed in helping physicians change their prescribing practices, then providing them with an alternative prescription, that of referral to behavioral treatment, is needed. This was a topic of great interest to many of the stakeholders who attended the ADHD Symposium. Physicians, educators and parents all voiced the need for this practice.Currently, there are several efforts in the state that have begun to address this issue. For one, managed care resources (in partnership with our universities) have been utilized to build the workforce of therapists trained to deliver evidence-based therapies for young children. Once the workforce is developed, there is a plan to designate providers of these evidence-based therapies as preferred providers, who will be incentivized to deliver these preferred treatments via increased referrals, ease of authorization, increased units authorized, etc. This is a well-conceived approach that is still under development in Louisiana, and should be continued and expanded. Secondly, one of the DHH regional human service districts has embarked upon a partnership with a local university (with funding from the Office of Behavioral Health) to pilot specialty clinics providing specialized services to children. Clinics are being piloted to target Complex ADHD, Trauma and Infant Mental Health. These pilots can be used to refine an approach and evaluate outcomes, as well as to

estimate the true costs of such specialized care and determine the feasibility of expanding these types of services to other regions in the state.

One additional issue relates to support for parents. Therapies which are evidence-based practices (EBPs), particularly those for young children, require a great deal of hard work from parents. These therapies often require parents to not only transport their children to the appointment, but to also participate fully in the meeting with the therapist, learn and practice new behavioral management strategies during the visit under the coaching of the therapist, and then practice these new strategies again and again at home with their child during the days, weeks and months ahead. Research shows that when parents are struggling with issues such as stress or their own depression, evidence-based therapies for their children become less effective because stressed or depressed parents are less able to learn and utilize the strategies effectively. Therefore, to ensure the success of treatment for children, access to clinical and logistical support for parents is essential. Specifically, these child-focused treatments are most likely to be effective if parents' mental health needs (e.g. depression) are treated effectively with empirically supported interventions targeted towards the parents. Another component of an approach to support parents is to employ peer support professionals. Acting on research on clinical outcomes and cost-effectiveness that suggests both parents and their children benefit when parents receive support from **other parents** who share similar life experiences Louisiana has already made strides to join the nationwide move towards increasing peer support.

Objectives: Increasing access and linkage to behavioral therapies and parent support

In practice, increasing access and linkage to behavioral therapies and parent support can be accomplished by:

- increasing the workforce of therapists and other providers of culturally relevant, evidence-based behavioral therapies (for children and also their parents) and family support;
- sustaining access to culturally relevant, evidence-based behavioral therapies (for children and also their parents) and family support through attention to network development, geographic access and utilization; and
- increasing the ability of doctors and teachers to link children and families to providers of these behavioral therapies and family support.

Specific Levers for Change: *Increasing access and linkage to behavioral therapies and parent support*

Drilling down even further, the Task Force, with the input of many community members and stakeholders, identified a wide range of potential levers that would make the above objectives possible. The actions below do not comprise a comprehensive list, but provide a sample of specific policy changes and tasks that could be undertaken in order to achieve the above objectives.

- Potential actions at the DHH level are listed below.
  - Examining the need for culturally relevant, evidence-based behavioral therapies for children with ADHD, especially EBPs for children under age 6.
  - Examining policies in other states that have led to increased access to EBPs for children with ADHD, such as rate floors.
  - Examining the need for culturally relevant, evidence-based behavioral therapies for children with disorders with symptoms that overlap with ADHD, especially EBPs for children under age 6.
  - Examining policies in other states that have led to increased access to EBPs for children with disorders with symptoms that overlap with ADHD.
  - Determining the expectations and funding needed for training and workforce development.
  - Partnering with educational institutions on utilizing scholarships or loan repayment support to incentivize child mental health professionals to serve low-resource areas and provide needed services.

- Developing performance measures and expectations for health plans regarding network adequacy and the utilization of EBPs, including the use of incentives.
  - Such performance measures should particularly target network adequacy and utilization of EBPs for children under age 6.
- Developing performance measures and expectations for health plans regarding integration strategies to increase linkage between physicians and behavioral health providers, such as fast-tracked referrals and co-location.
- Determining policies and practices for health plans to support the use of peer support professionals.
  - Such professionals can provide culturally relevant peer support to parents and serve as care navigators while assisting parents in accessing the range of services available for children and families.
- Collaborate to develop potential health home models to provide integrated, coordinated care at the child psychiatry and primary care levels.

▸ Potential actions at the health plan level are listed below.

- Delivering training and workforce development on culturally relevant, evidence-based therapies to providers, particularly on EBPs for children under age 6.
- Developing networks for behavioral health providers, including the use of preferred provider strategies in order to assist with provider recruitment and network sustainability and focusing particularly on providers of behavioral health care to children under age 6.
- Keeping up-to-date and accurate lists of behavioral health specialists accepting new clients.
- Developing integration strategies to ensure easy linkage between physicians and behavioral health providers, such as fast-tracked referrals and co-location.
- Increasing use of peer support professionals to provide culturally relevant peer support to parents and serve as care navigators to assist parents in accessing the range of services available for children and families.
- Measuring outcomes, including rates of psychotherapy appointments for children under 6 with ADHD diagnoses and the proportion of children under 6 with ADHD who receive psychotherapy.

▸ Potential actions in collaboration with other child-serving agencies (DOE, DCFS, OJJ) are listed below.

- Increasing training delivered to teachers and other school personnel, such as school social workers, principals, and assistant principals on strategies to support and accommodate youth who have difficulty with attention or behavior regulation.
  - Such training should include strategies that support children's developmentally appropriate needs for physical activity and legal issues related to protections and accommodations for children with ADHD. Training may be particularly effective if targeted to school social workers and other school staff who lead and influence the school building level committees (SBLCs). SBLCs are tasked with understanding youths' behaviors and planning individualized interventions and accommodations that will benefit students who may be struggling in the classroom. For example, movement/physical activity is a potential accommodation that could be approved by relevant team members as part of a child's pupil needs appraisal (PNP), 504 plan or individualized education program (IEP). Such strategies could be used more often if SBLCs were provided with information and guidance about the efficacy of their approach and how they could be used.

- Collaborating on behavioral supports and interventions within schools.
  - Potential approaches include:
    - continuing to build the ability of local education agencies (LEAs) to harness Medicaid funding for clinical services provided to youth in the school setting;
    - schools harnessing other sources of funding, such as funds specifically set aside to participate in positive behavioral interventions and supports (PBIS) consortiums to enhance PBIS fidelity;
      - Note: Funds for PBIS programs had previously been provided by the State, but such programs are now funded at the district-level and are not mandatory. Providing information on funding sources to school leaders may help schools enhance PBIS, and training on these funding sources could be included in a DHH/DOE toolkit for districts and schools as described above.
  - bringing private providers to school campuses to provide services for Medicaid-eligible youth; and
    - Note: Information on how to create linkages with private providers of mental health services for youth could be included in a DHH/DOE toolkit for districts and schools as described above.
  - continuing Louisiana's focus on early childhood education and development, including prevention and intervention in the form of teaching social-emotional skills.
- Working with DCFS to develop a plan for better access to care for this vulnerable population and to ensure they are receiving adequate evaluations and treatment.

Goal 3: Improve the alignment of pharmacological treatment with evidence-based guidelines

RATIONALE

There is broad consensus among professional groups, including the American Academy of Pediatrics and the American Academy of Child and Adolescent Psychiatry, on clinical best-practice guidelines for the treatment of ADHD. These guidelines vary based on age, presentation and comorbidities, and may include recommendations for pharmacological treatment and treatment with behavioral therapies. For example, for children under the age of 6, evidence-based parent- and/or teacher-administered behavior therapy is recommended as the first line of treatment, and evidence-based treatment also supports the use of stimulants if behavioral interventions are insufficient to improve symptoms. In older, school-aged children and adolescents, evidence-based guidelines support both the prescription of FDA-approved medications for ADHD and evidence-based behavior therapy. The choice of pharmacologic interventions available includes both stimulants and non-stimulants. With accurate diagnoses, stimulant medications are highly effective for most children in reducing core symptoms of ADHD. The evidence base also supports the use of some non-stimulants (e.g., atomoxetine, guanfacine, and clonidine) but these medications have less empirical support. Anecdotally, antipsychotic agents have been increasingly used for children with ADHD symptoms. These medications may be associated with serious metabolic and endocrinologic (hormonal) side effects and have no rigorous data supporting their use as ADHD medications. Any and all medications have the potential for adverse reactions and long- and short-term side effects, especially if not prescribed in safe and approved dose ranges. For these and other reasons, process-of-care and medication treatment algorithms have been developed to help assure practitioners prescribe appropriately and safely and treat in a manner consistent with the evidence. For these reasons, it is important to assure that all practitioners are prescribing in alignment with evidence-based guidelines.

Objectives: *Improve the alignment of pharmacological treatment with evidence-based guidelines*

In practice, improving the alignment of pharmacological treatment with evidence-based guidelines can be accomplished by:

- initiating a thorough evaluation of youth presenting with academic or behavioral problems, including identification of any symptoms or behaviors which might coexist with ADHD or otherwise contribute to the academic or behavioral problem (e.g., anxiety, depression, oppositional-defiant disorder, developmental issues, language impairments, other neurologic impairments, trauma and toxic stress, etc.);
- referencing evidence-based treatment guidelines and recommendations specific to the child's age, developmental status and co-existing diagnoses;
- prescribing of empirically supported medications as indicated for age and diagnoses;
- the titration (adjusting to the appropriate levels) of medication doses to achieve maximum benefit with minimum adverse effects paired with regularly scheduled assessments of effectiveness and adverse effects; and
- the regular and repeated use of reliable instruments and ongoing assessment to monitor the nature and degree of functional impairment in children and adolescents with ADHD for desired therapeutic, academic and behavioral improvement over time and for the development of any possible adverse effects.

Specific Levers for Change: *Improve the alignment of pharmacological treatment with evidence-based guidelines*

Drilling down even further, the Task Force, with the input of many community members and stakeholders, identified a wide range of potential levers that would make the above objectives possible. The actions below do not comprise a comprehensive list, but they do provide samples of specific policy changes and tasks that could be undertaken in order to achieve the above objectives.

- Potential actions at the DHH level are listed below.
  - Adopting DHH-approved guidelines for specific screening, diagnostic evaluation and evidence-based treatment for both PCPs and behavioral health specialists that would be used by Bayou Health plan providers, including pharmacists, PCPs and other clinical professionals.
    - It is recommended that DHH adopt a minimum standard of practice each plan must meet or exceed (e.g., AAP guidelines).
    - DHH may need to establish new services/codes within Medicaid to assure all necessary services are reimbursable. Such guidelines might be useful for distribution in the form of educational letters for outlier prescribers as part of a retrospective drug utilization review (DUR) process and/or might be used to provide continuing education to prescribers and other clinicians.
  - Developing **Louisiana-specific materials to facilitate the education of parents and teachers** relative to the recognition, referral and non-pharmacologic management of ADHD and conditions with presenting symptoms that include inattention, impulsivity or hyperactivity and might be misdiagnosed as ADHD, including nutritional, activity, sleep and lifestyle risk factors.
    - Such materials might be employed as part of a retrospective drug utilization review process in which claims data is reviewed to identify member outliers, such as youths aged 48 months or younger on psychotropic meds, and/or used as basis for more formalized or scheduled didactic learning opportunities.
  - **Developing managed care and PCP incentives** for Bayou Health plans to assure enhanced access to behavioral health specialists for youth under age 6, sentinel prescriptions, consultation, referral, use of EBPs or other services related to ADHD.
  - Facilitating **common or shared formularies and appropriateness of use guidelines, educational letters**, etc.
  - Developing and implementing health plan outcome measures and routine,

standardized quality reports related to prescriber educational offerings; practitioner use of evidenced-based ADHD screening; evaluation; treatment; and specialty referral, including the use of stimulants versus non-pharmacologic therapies.

- Developing pharmacy reporting specific to ADHD and stimulants, including, but not limited to, prior authorization approvals, denials and/or modifications related to stimulants.
- Developing reports and quality measures related to the prescribing of ADHD medications, including, but not limited to, the following:
  - the percentage of children who had one follow-up visit with a practitioner with a prescribing authority during the 30-day initiation phase.;
  - the percentage of children who remained on ADHD medication for at least 210 days and who, in addition to the visit in the initiation phase, had at least two additional follow-up visits with a practitioner within 270 days (nine months) after the initiation phase ended;
  - the percentage of children under age 6 who had a referral to a licensed mental health professional or developmental/behavioral pediatrician during the 30-day initiation phase; and
  - the percentage of children under age 6 who remained on ADHD medication for at least 210 days and who had at least two additional follow up visits with a licensed mental health professional or developmental/behavioral pediatrician within 270 days (nine months) after the initiation phase ended.

- Potential actions at the health plan level are listed below.
  - Employing the resources of Bayou Health plan behavioral health medical directors to oversee, monitor and assist with the management of psychopharmacology, including any pharmacy benefit management activities related to establishment of prior authorization and step therapy requirements.
  - Providing clinical peer-to-peer and case management consultations and clinical guidance for contracted primary care physicians (PCPs) treating behavioral health-related concerns not requiring referral to behavior health specialists, including ADHD and other disorders that present with hyperactivity, inattention or impulsivity.
  - Establishing a **single formulary across all Bayou Health Plans** for the use of all psychotropic medications for all enrolled youth.
  - Developing and adopting program(s) similar to other states' efforts.
    - Wyoming, Washington, and Montana provide a phone line covered by a child psychiatrist during usual business hours, which provides consultation regarding any mental health issue for primary care providers. PCPs are required to submit for review any prescriptions that exceed predetermined dose or medication limits. http://www.palforkids.org/index.html
    - Maryland mandates peer review of prescriptions for pediatric, atypical, antipsychotic agents. Such medications are sometimes used to target impulsivity, but they are not indicated or empirically supported in ADHD. Providers fax clinical information supporting the use of the medication, and cases are reviewed by pharmacist within 24 hours. A child psychiatrist will also review complex cases. https://mmcp.dhmh.maryland.gov/pap/SitePages/Peer%20Review%20Program.aspx.
      - In Louisiana, this might be used for psychotropic medications prescribed to those younger than 48 months as a very cautious start to target this vulnerable population.
    - North Carolina has created the Antipsychotic Registry (A+ Kids) program. This program mandates the documentation

of safety monitoring for youths under 18 years of age who are prescribed any off-label or non-FDA-approved polypharmacy or high dose. The registry includes clinical data supporting the use of the medication but does not prohibit prescriptions. It been shown to be associated with a decline in prescriptions for atypical antipsychotic agents. https://www.communitycarenc.org/population-management/behavioral-health-page/kids/

- Illinois has mandated that the administration of psychotropic meds to foster children requires a consent request to be filed with the child protection office. Such a request requires some basic demographic information as well as clinical information. Psychiatric nurses review the request information and forward requests to child psychiatrists for further review.
  - This recommendation for this specific population can be implemented in conjunction with models described above that target the general population and is consistent with the AACAP Best Practice Guidelines for children in foster care.

- Developing comprehensive care programs (disease management) for youth under age 6 with ADHD and other disorders that present with inattention, hyperactivity or impulsivity.
  - This may include behavioral health care navigators who can be available to provide outreach to youth, families and/or DCFS case workers to assure timely and thorough behavioral health specialist access for evaluation, treatment and follow up care. Care navigators would help arrange appointments and check with families/guardians to remind of appointments, address access barriers and provide other case management services. Care navigators are useful in situations in which, given the high rates of physical and psychiatric comorbidities, coordinated care is especially important. Their use would likely increase access to evidence-based treatments and decrease exposure to multiple medications and could also decrease costs.
- Developing geo-access reports documenting the geographic availability of contracted network behavioral specialty providers willing and available to evaluate and treat youth with ADHD.
- Developing and providing targeted, evidence-based education and training for Bayou Health plan PCPs related to commonly encountered behavioral health issues frequently treated by PCPs, including ADHD and other disorders that may present with inattention, hyperactivity or impulsivity.
  - Such education might also be provided via educational letters to outlier prescribers, as continuing medical education for physicians and/or other health professionals, and to parents and teachers.
- Establishing appropriateness of use authorization criteria for prescribing of stimulants in youth and adults.
- Including medication therapy management (MTM) services targeting members under age 6 diagnosed with ADHD and/or prescribed stimulants.
  - Such MTM services should include coordination between the health plan, the member, the pharmacist and the prescriber.

- Potential actions taken in collaboration with other child-serving agencies (DOE, DCFS, OJJ) are listed below.
  - Working with DCFS to evaluate medication use in this population, review informed consent policies and practice and develop an approach by which these children can access appropriate care as minimally defined as a good, clinical assessment of the differential diagnoses.
    - Coordinated care is especially important given the high rates of physical and psychiatric comorbidities. DHH might particularly target the use of **behavioral health care navigators** on youths in the custody of DCFS. Care navigators would

place additional attention on the medical treatment these youths receive beyond the levels already provided by DCFS, which often lacks the resources to effectively monitor such treatment. Thus, care navigators would likely decrease the rate at which these youths are exposed to multiple medications, all while decreasing costs.

- Working with DCFS to evaluate appropriate medication use in its population by **ensuring health care professionals, families and case workers are involved with implementing informed-consent policies and practice** for all DCFS youths prescribed psychotropic medications, including ADHD medications.
- Considering child psychiatry review of treatment plans for children on medications in the DCFS system.
  - In Illinois, the cases of all children on medications in their state's custodial care are reviewed by a pharmacist, and any prescriptions beyond pre-defined practice parameters are reviewed for approval by a child psychiatrist.

Summary & Conclusions

DHH is committed to collaborating with our partners and stakeholders to ensure ADHD medication is used effectively in Louisiana and guided by nationally recognized, best-practice guidelines for the identification, diagnosis and treatment of ADHD. Creative thinking about innovative solutions will be required. After comprehensive study of the issue, the Task Force identified the following three major goals:

1. increase the accuracy of ADHD diagnosis vs. other disorders or typical variation,
2. increase access and linkage to behavioral therapies and parent support and
3. improve the alignment of pharmacological treatment with evidence-based guidelines.

In addition, the Task Force identified objectives and specific policy efforts that can be made to accomplish these goals.

DHH and the ADHD Task Force propose that, as we complete the phase in which we have studied the issue, we now move towards the design and implementation of plans to achieve our goals. We propose this work be guided by the ADHD Task Force, which we would like to see continue and expand through a new resolution. We are reaching out to additional stakeholders and will be excited to expand our membership beyond DHH to include partners within the other child-serving agencies, such as the Department of Education, The Department of Child and Family Services and the Office of Juvenile Justice, as well as partnering with family members and consumer advocates. We propose this expanded Task Force will guide the formation and efforts of specific workgroups, which can focus on crafting policy and solutions in areas such as health care and education. The Department looks forward to working with the Legislature to tackle this important issue for Louisiana and its residents.

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