



# The Value Proposition: Collaborative Research

## ADHD Research Study: Physician Compliance with the American Academy of Pediatrics Guidelines on the Diagnosis and Treatment of ADHD in Children

### BACKGROUND

The National Institute of Health awarded Vanderbilt University a research grant in late 2000 to participate in a study entitled *Improving Pediatricians' Use of ADHD Guidelines*. As Vanderbilt required the expertise and services of community pediatricians for the project, the University entered into an agreement in May 2001 with Kids Health First, formally Kids First Research Institute, to participate in this study.

The Principal Investigator for this project was Dr. Leonard Bickman, Vanderbilt University-VIPPS. The project directors for KHF were Edward Gotlieb, M.D. and Jaquelin Gotlieb, M.D., who chaired the Kids First Research Institute.

*Dr. Bickman has granted permission to reference the study in this summary document.*

### PURPOSE

The purpose of this study was to describe pediatricians' practices for assessing and treating ADHD, the effect of these efforts on children and the direct and indirect costs of this disorder in the community setting.

The desired outcome of the study was to identify an intervention that would educate and motivate pediatricians to increase their adherence to the AAP ADHD Guidelines.

### STUDY DESIGN

There were three phases to the study. The Pre- and Post Intervention phases involved retrospective studies of pediatrician assessment, diagnosis and treatment of ADHD. The Pre-Intervention phase included anonymous chart audits for children, diagnosed with ADHD by the pediatrician, through one year of treatment. The Longitudinal phase consisted of interviews of parents whose children were seen by a pediatrician for school or behavioral concerns and were diagnosed with ADHD by the pediatrician, the C-DISC, or both.<sup>1</sup>

### OUR ROLE

Eighty pediatricians from 22 practices in the KHF network volunteered to participate in this project. These pediatricians represented approximately half of the physician membership at that time. As part of the project, the pediatricians answered a questionnaire related to their characteristics and attitudes at the time of the consent to participate. The questionnaire revealed the following:

- 83% of the pediatricians supported the belief that ADHD is a valid diagnosis.
- Between 59-64% of the pediatricians rated themselves as being very knowledgeable regarding diagnostic and treatment methods for ADHD
- 58% of them reported familiarity with the AAP guidelines for ADHD and a strong desire to learn about treatment methods for ADHD

Half of the physicians enrolled in the group, received an academic detailing-based intervention.<sup>2</sup> The remaining half enrolled in the Control group and did not receive any intervention. There were no significant differences in pediatrician characteristics between the two groups based on multiple factors, such as medical experience and biographical demographics.

### DATA COLLECTION

During the Pre-Intervention, Longitudinal and Post-Intervention phases, 808 anonymous charts were audited. Parents of children with ADHD were also interviewed.

**Quality – Care – Innovation...FIRST**

## RESULTS AND CONCLUSIONS

For purposes of this document, only those objectives related specifically to adherence to the AAP Guidelines for ADHD are included in these excerpted results. Additionally, other physicians outside of the KHF network participated in this study. The reported results include all physician participants and not just those results compiled from the KHF physicians.

- Results indicated that the **academic-detailing-based intervention had no effect on pediatrician adherence to the AAP guidelines for the Intervention group.**
- On average, the **overall adherence to the guidelines was better for diagnosis (83.4%)** than for treatment (37.1%).
- Overall adherence to the guidelines ranged from 40-70%, with an average of 4.76/18 guidelines, per pediatrician, which were below 70% in terms of adherence.
- Results could not predict which pediatricians would comply with, or increase their adherence to the guidelines.
- **84% of the pediatricians indicated they were “highly motivated” or “somewhat motivated” to learn more about evaluating, diagnosing and treating ADHD.**
- There was **significant superiority in symptom reduction for the more guideline-adherent pediatricians.**
- Under diagnosed cases of ADHD were somewhat more likely to be Hispanic children
- Children showed **fewer ADHD symptoms when medicated.**
- Many physicians also identified barriers to the management of ADHD within their practice settings, which included lack of sufficient time to address ADHD in the office, the complexity of the cases and low reimbursement.

**As the children, managed by pediatricians who adhered to the guidelines, showed more improvement in their ADHD symptoms over time, KHF recommends that all pediatricians adhere to the AAP guidelines for ADHD.**

The results of this study may also be useful in identifying further research opportunities in the area of ADHD.

As the AAP guidelines for ADHD had only recently been published in 2000 and then revised in 2001, the level of knowledge and familiarity with the guidelines may look very different today.

## ACKNOWLEDGEMENT

Kids Health First would like to thank Dr. Leonard Bickman-VIPPS, Vanderbilt University for including Kids Health First in this research project. We would like to thank Drs. Edward and Jaquelin Gotlieb for their role in this project, as well as the physician practice members who volunteered their time and resources.

Moving forward, KHF will continue to provide opportunities such as this for our practice members. Collaborative research efforts will further our mission towards providing the highest quality of healthcare to our patients and families.

If you would like more information specifically related to this research study or others, please call 770.333.0033 for a more detailed report.

*<sup>1</sup>Improving Pediatricians' Use of ADHD Guidelines: NIH Grant awarded to Vanderbilt University; Principal Investigator, Dr. Leonard Bickman-VIPPS*

*<sup>2</sup>Academic-detailing-based intervention is an educational vehicle which has shown to be effective in promoting clinical use of evidence based practice recommendations into community based pediatric offices, and therefore should a) improve knowledge and skills for addressing ADHD and b)improve adherence to the guidelines for purposes of evaluating, diagnosing and treating, and c)improve outcomes for children with ADHD.*

*The physicians and other healthcare providers affiliated with Kids Health First are independent providers and are not employed by Kids Health First.*

