

**When is evidence ready for prime time?  
Addressing disparities in access for African-American children with ADHD.**

Janice L. Cooper, Ph.D.  
Director, Child Health and Mental Health  
National Center for Children in Poverty, Columbia University  
21<sup>st</sup> Annual Research and Training Conference  
Feb. 25, 2007, Tampa Florida

**NCCCP** National Center for Children in Poverty  
Columbia University  
MAILMAN SCHOOL OF PUBLIC HEALTH

## National Center for Children in Poverty

### Who We Are

- NCCP is a non-partisan, public interest research organization at Columbia University's Mailman School of Public Health
- NCCP uses research to promote the economic security, health, and well-being of America's low-income children and families
- Our ultimate goal: Improved outcomes for the next generation

**NCCCP** National Center for Children in Poverty  
Columbia University  
MAILMAN SCHOOL OF PUBLIC HEALTH [www.nccp.org](http://www.nccp.org)

## Acknowledgements

Annie E. Casey Foundation  
John D. & Catherine T. MacArthur Foundation  
The California Endowment  
Zellerbach Family Foundation  
Jane Knitzer, EdD  
Sarah Dababnah, Rachel Masi, Yumiko Aratani, Vivien Savath

**NCCCP** National Center for Children in Poverty  
Columbia University  
MAILMAN SCHOOL OF PUBLIC HEALTH [www.nccp.org](http://www.nccp.org)

## Overview

- Introduction
- Background
- Countercharges
- Methods
- Findings
- Implications

**NCCCP** National Center for Children in Poverty  
Columbia University  
MAILMAN SCHOOL OF PUBLIC HEALTH [www.nccp.org](http://www.nccp.org)

## Introduction

- Aims
  - Examine guideline level care in light of new data
  - Examine by race/ethnicity
  - Understand the larger contextual implications for researchers

**NCCCP** National Center for Children in Poverty  
Columbia University  
MAILMAN SCHOOL OF PUBLIC HEALTH [www.nccp.org](http://www.nccp.org)

## Background


- ADHD one of the most widely identified childhood disorders
- Nearly 9% of American children and adolescents (8-15) met the DSM-IV criteria for ADHD
- Poor children were more likely to meet criteria for ADHD diagnosis
- No difference between African-American and non-Hispanic/Latino Whites re: likelihood to meet criteria but African-American and Hispanic/Latino less well represented among subtype "inattentive"

Source: Froehlich et al., 2007

**NCCCP** National Center for Children in Poverty  
Columbia University  
MAILMAN SCHOOL OF PUBLIC HEALTH [www.nccp.org](http://www.nccp.org)


### Background

- 1999 MTA dictated gold standard for ADHD treatment
  - Stimulant only and Combination Stimulant and Behavioral treatment guideline level care
  - Behavioral only for children with no other co-occurring conditions not optimal care
- Critics charged
  - 14 months too short to base policy
  - Largely ignorant of physiological implications
  - Stimulants gateway to substance abuse

 National Center for Children & Poverty  
 Graduate University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH  
[www.nccp.org](http://www.nccp.org)

### Background


- Counter chargers:
  - Children with ADHD particularly children of color were suffering from disparities in access
  - No proof beyond speculation regarding charges of increase drug use, physiological changes
  - Quack factor, anti-psychiatrists suspicious messengers

 National Center for Children & Poverty  
 Graduate University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH  
[www.nccp.org](http://www.nccp.org)

### State of the Field 2000 on....

	Overall	Combo	Meds	Behav.	Community
Xage	11.8	11.7	12	11.6	11.8
Male	79%	76%	82%	79%	79%
White	62%	60%	67%	56%	65%
Af.Am	20%	18%	17%	27%	19%
Latino	7%	9%	9%	9%	4%
Other	11%	13%	8%	9%	13%

Source: MTA, 1999

 National Center for Children & Poverty  
 Graduate University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH  
[www.nccp.org](http://www.nccp.org)


### Shifting Evidence – quick story

- ADHD most commonly diagnosed child mental health condition
- Diagnosis and treatment remains controversial
- Significant consequences associated with lack of treatment for ADHD
- Does treatment conform with guidelines?

 National Center for Children & Poverty  
 Graduate University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH  
[www.nccp.org](http://www.nccp.org)


### Aims

- Examine treatment patterns in light of clinical evidence on efficacy (medication and psychosocial interventions)
- Examine individual and provider characteristics
- Examine treatment over time

 National Center for Children & Poverty  
 Graduate University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH  
[www.nccp.org](http://www.nccp.org)

### Study Design and Methods

- Florida Medicaid data 1996-2000
- Claims and enrollment data
- Individual choice model
  - Logistic, multinomial logistic regressions
  - Modified episode approach: all care within 365 days of first diagnosis

 National Center for Children & Poverty  
 Graduate University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH  
[www.nccp.org](http://www.nccp.org)

### Methods

- Dependent var. treatment choice
- No treatment
- Behavioral only
- Stimulant treatment
- Combination treatment
- Residual

National Center for Children & Poverty  
Georgetown University  
WATKINS SCHOOL OF PUBLIC HEALTH

www.nccp.org

### Describing variables and methods

- Behavioral only: threshold of 4+ visits
- Combo: 3 mos. Stimulant therapy & 4+ visits behavioral
- Combo include at least one episode of dual treatment
- Episode defined: Start DOS for stimulant script & end tx break >28 days
- Stimulant episode where 3+ scripts
- Residual: treatment options that do not meet above

National Center for Children & Poverty  
Georgetown University  
WATKINS SCHOOL OF PUBLIC HEALTH

www.nccp.org

### Population Characteristics: '96-'00 n=105,251

Male	76.4%
AFDC/TANF	64.5%
White	45.5%
Black	30.1%
Latino	9.9%
Age 6-9	41.2%
Age 10-13	41.3%

National Center for Children & Poverty  
Georgetown University  
WATKINS SCHOOL OF PUBLIC HEALTH

www.nccp.org

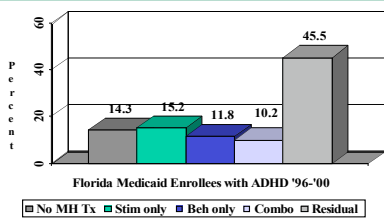
### Clinical Characteristics '96-'00

Mental health comorbidity	36.5%
Medical comorbidity	12.1%
Case management	27.9%
Mental health inpatient use	4.6%
Primary treating clinician is mental health specialist	48.7%

National Center for Children & Poverty  
Georgetown University  
WATKINS SCHOOL OF PUBLIC HEALTH

www.nccp.org

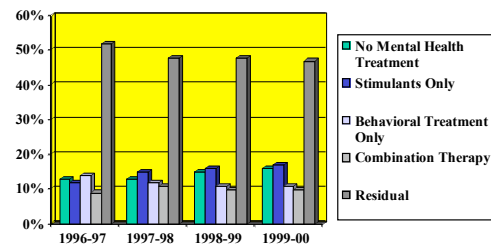
### Treatment for Children with ADHD in Florida Medicaid



National Center for Children & Poverty  
Georgetown University  
WATKINS SCHOOL OF PUBLIC HEALTH

www.nccp.org

### Treatment Trends for Children and Adolescent Enrollees with ADHD



National Center for Children & Poverty  
Georgetown University  
WATKINS SCHOOL OF PUBLIC HEALTH

www.nccp.org

### Treatment Choice Model Results

Over time


- White children less likely to receive guideline level care
- Males more likely to receive no MH treatment, behavioral only and residual care
- Specialty provider and case management decreasingly associated with:
  - Behavioral only treatment
  - Residual treatment
  - Combination therapy

 National Center for Children & Poverty  
 Georgetown University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH

www.nccp.org

### MTA Results 24 & 36 months


- All treatment groups improved
- No difference in clinical & functional outcomes between groups
- Instead of having improved outcomes for medication, it was a significant indicator of "deterioration"
- Youth who received special ed. Services between 24-36 months got worse

 National Center for Children & Poverty  
 Georgetown University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH


www.nccp.org

### Other outcomes: ADHD-related medication and Substance Use

- Approximately 12% of youth in MTA sample reported substance 24 months vs 6% of youth in control group
- By 36 months the proportion of youth in the MTA cohort who reported substance use had doubled, while only 8% of the control group reported substance use



Source: (Molina et al., 2007); (Swanson et al., 2007).


 National Center for Children & Poverty  
 Georgetown University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH

www.nccp.org

### Other outcomes

- Association between ADHD-medication and growth rates
  - Youth with consistent medication youth were shorter and lighter than control group
- Association between ADHD-related medication use and delinquency
  - More than ¼ (27%) of youth in MTA sample reported moderate to serious delinquency (stealing, violence, possession of weapon) at 36 months versus < than 1/10 (8%) in control group reported moderate to serious delinquency
  - At 24 and 36 months MTA enrolled children with higher delinquency were more likely to receive medication to treat ADHD. Youth who received behavioral tx only were less likely to be delinquent


Sources: (Molina et al., 2007; Swanson et al., 2007).

 National Center for Children & Poverty  
 Georgetown University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH

www.nccp.org

### Further research


- Replication of MTA work on:
  - Substance use
  - Delinquency (problems with admin data)
  - Growth rates
- Use other Medicaid data to review quality care

 National Center for Children & Poverty  
 Georgetown University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH

www.nccp.org

### Implications

- Prior interpretation
- New interpretation
- How do we address community concerns?
- MTA did not release race/ethnicity
- What is the role of the researcher of color?
- Is the argument for operationalizing clc?

 National Center for Children & Poverty  
 Georgetown University  
 WASHINGTON SCHOOL OF PUBLIC HEALTH

www.nccp.org

Visit NCCP's Website  
Sign Up for our updates!!

- [www.nccp.org](http://www.nccp.org)
- <http://www.nccp.org/projects/unclaimedchildren.html>

Janice L. Cooper  
[cooper@nccp.org](mailto:cooper@nccp.org)



The screenshot shows the NCCP website homepage with a navigation menu (Home, About Us, Services, etc.), a main content area with several articles, and a sidebar with a search box and quick facts. The NCCP logo is visible in the top left of the screenshot.

**NCCP** National Center for  
Children of Poverty  
www.nccp.org