

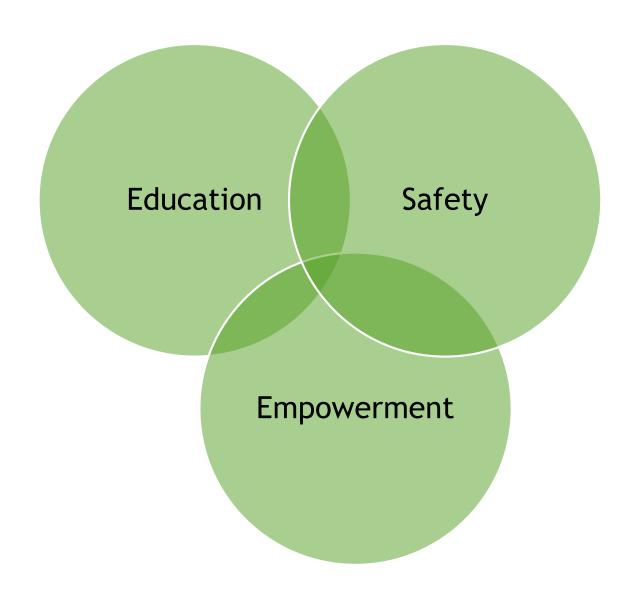
November 2015

Project Overview

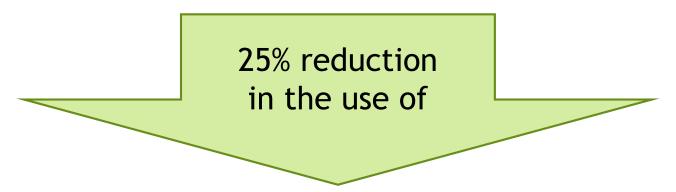
History and Goals

- ► \$1 million investment by the Ohio Office of Health Transformation and Department of Medicaid
- ► A public -private partnership: state departments, health systems, providers, community representatives, child & family advocates
- ► The three-year goals:
 - Increase timely access to safe and effective psychotropic medications and other treatments
 - ◆ Improve pediatric health outcomes
 - Reduce potential adverse effects

Priorities



Smart AIMS



- Atypical Antipsychotic medications in children less than 6 years of age
- 2 or more concomitant AAP medications for over 2 months duration
- 4 or more psychotropic medications in youth <18 years of age</p>

Collaborative Model

- Learning and community collaborative approach
- ► The Institute for Healthcare Improvement (IHI) Rapid Cycle Quality Improvement Model
 - Family centered and population based
 - Design, test, and implement evidence-based quality interventions in three pilot communities
 - Statewide rollout of community tested strategies

Structure

BEACON Statewide Stakeholder Meetings/All Pilot Communities Facilitators: QI Vendor and Clinical QI Leader

State Steering Committee Clinical Advisory Panel Pilot Community Chairs

Facilitator: QI Vendor and Clinical QI Leader

Meeting Schedule: Monthly Teleconference, Quarterly Face-to-Face

Central **Community Steering** Committee

Clinical and QI Facilitators

Meeting Schedule: Quarterly meetings beginning in August 2013

Chair: Dr. Jonathan Thackeray

Northeast **Community Steering** Committee

Clinical and QI Facilitators

Meeting Schedule: Quarterly meetings beginning in August 2013

Chair: Dr. Steven Jewell

Southwest **Community Steering**

Committee

Clinical and QI **Facilitators**

Meeting Schedule: Quarterly meetings beginning in August

2013

Chair: Dr. Rick Smith

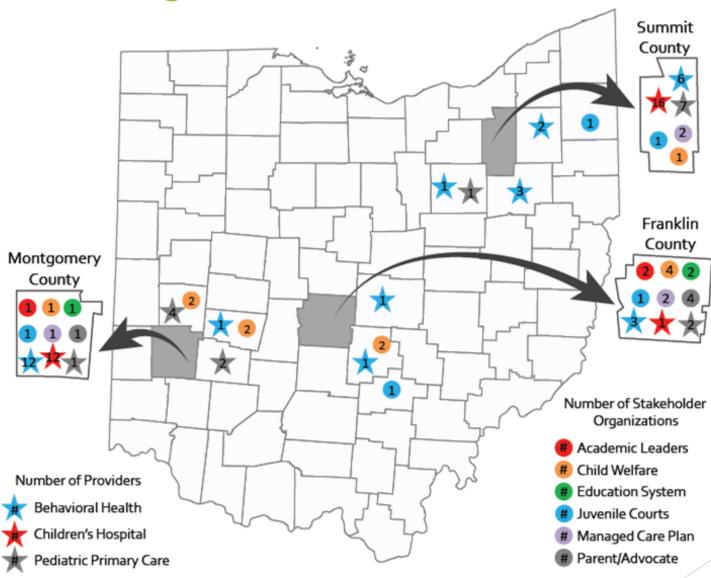
Role of Clinical Advisory Panel

- Experts in pediatrics, psychiatry, and pharmacology
 - Guide and review evidence-based/informed clinical guidelines, technical resources development, and implementation
 - Provide clinical, collegial support/guidance to the QI Team
 - Serve as faculty/resource in clinical guidelines training/seminar for clinicians
 - Provide clinical, collegial support/guidance to second opinion and outreach teams

Regional Pilot Communities

- Regional pilot community collaborations:
 - Northeast, Central and Southwest regions with 13 participating counties
 - Regional pilot communities chaired by respected clinical leader
 - ◆ 119 early adopters from hospitals, large practices, community mental health centers, and residential treatment centers
- Steering Committee Members:
 - Key Early Adopter Practices (Pediatricians, Psychiatrists, Psychologists, Nurse Practitioners, and Family Physicians)
 - Medicaid Managed Care Plans
 - Children's services agencies
 - Child and Family Court
 - Child and Youth Advocacy Organizations
 - Youth and Parents
 - Schools

Regional Pilot Communities



Stakeholder Engagement Strategies

- Standardization & Guidelines
 - Education and prescribing data feedback for quality improvement
- Consumer Empowerment
 - Advance understanding and shared-decision making
- Access and Coordination of Care
 - Build community collaboration (child welfare, schools, courts)

Provider Engagement: Clinical Decision Support

Minds Matter Toolkit

Resource Audiences

- Prescribers
- Parents
- Consumers
- Schools
- Agencies

Resource Topics

- Psychotropic medication guide
- Inattention, hyperactivity, impulsivity
- Disruptive behavior and aggression
- Moodiness and irritability

Resource Types

- Decision Algorithms
- Evidence-based guidelines
- Fact Sheets
- Online, ondemand learning modules

6 Decision Algorithms

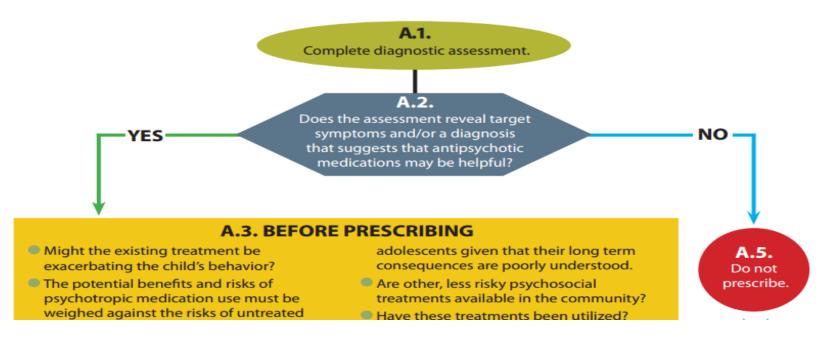
- Antipsychotic medication management in children under 6 years of age
- Avoiding the use of more than one AAP medication in children under 18 years of age
- Avoiding polypharmacy
- Inattention, hyperactivity, and impulsivity
- Disruptive behavior and aggression
- Moodiness and irritability

Decision Support Algorithms



Algorithm A

Antipsychotic Medication Management in Children Under 6 Years of Age



Care Guides Accompany Each Algorithm

Recognition, assessment, and diagnosis

 Medication algorithm, Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnostic criteria

Treatment

• Evidence-based treatment guidelines, medication resource tables

Monitoring

• Side effects and intervention monitoring charts

Education

• Fact sheets, links to existing clinical resources

Care Guides



Oppositional Defiant Disorder and Conduct Disorder Treatment Guide

DSM Criteria

Diagnostic criteria for 313.81 Oppositional Defiant Disorder

- A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months, during which four (or more) of the following are present:
 - (1) often loses temper
 - (2) often argues with adults
 - (3) often actively defies or refuses to comply with a dults' requests or rules $% \left(1\right) =\left(1\right) \left(1\right) \left($
 - (4) often deliberately annoys people

- (5) often blames others for his or her mistakes or misbehavior
- (6) is often touchy or easily annoyed by others
- (7) is often angry and resentful
- (8) is often spiteful or vindictive
- Note: Consider a criterion met only if the behavior occurs more frequently than is typically observed in individuals of comparable age and developmental level.
- B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.
- C. The behaviors do not occur exclusively during the course of a Psychotic or Mood Disorder.
- Criteria are not met for Conduct Disorder, and, if the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

Diagnostic criteria for 312.8 Conduct Disorder

A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:

Aggression to people and animals

- (1) often bullies, threatens, or intimidates others
- (2) often initiates physical fights
- (3) has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)
- (4) has been physically cruel to people
- (5) has been physically cruel to animals
- (6) has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)
- (7) has forced someone into sexual activity

Destruction of property

- (8) has deliberately engaged in fire setting with the intention of causing serious damage
- (9) has deliberately destroyed others' property (other than by fire setting

Online On-Demand Training Modules For Each Algorithm

Features:

- ◆ Training module developed for each decision algorithm
- Individually defined learning objectives
- Standard format which incorporates case study review and shared decision making
- ♦ 60-90 minutes in length
- Pre- and post-test which examines the practitioners knowledge in the area

Incentives for participation

- Lifelong Learning and Self-Assessment (Part 2) Maintenance of Certification through the American Board of Pediatrics
- Continuing Medical Education
- Continuing Education Units



Provider Engagement: Early Adopter Learning Collaborative

Practice Level Prescribing Data

- Notify clinicians when prescribing practices exceed established guidelines
- ◆ Support rapid cycle quality improvement using Plan-Do-Study-Act model to develop and refine interventions at the practice level
- Prompt prescribers to indicate planned changes or to provide rationale
- ◆ Identify common challenges to prescribing within guidelines

Early Adopter Practice Sites

- ▶ 44 practice sites/119 prescribers in the pilot regions
- Participation opportunities:
 - ♦ 6 online learning modules
 - Use standard of care in practice site
 - Active participation in identifying barriers and solutions
 - ◆ Test change by reviewing practice level data related to Minds Matter target measures
 - Share case review, perceived barriers, and solutions in monthly early adopter action calls
 - Pediatricians eligible to receive Maintenance of Certification (MOC) Part 4 Credit for participating

Consumer and Community Engagement: Decision Support

Materials for Consumers and Agencies

- Shared Decision Making Tools
 - ◆ Toolkit for families, youth and community workers
- Culturally competent and linguistically appropriate resources
 - Fact sheets
 - Links to existing resources
- Partnerships and resources for local efforts and systems of care

Shared Decision Making

- ► Tools to empower consumers to actively participate in the shared decision making process
 - Enhances communication
 - Provides youth, family, and guardians with support needed to make individualized care decisions
 - Facilitates shared processes among medical providers, youth, family, and guardians
 - Reviewed by consumers, youth, consumer advocates, social service organizations, mental health boards, school and court representatives, behavioral health centers and clinicians

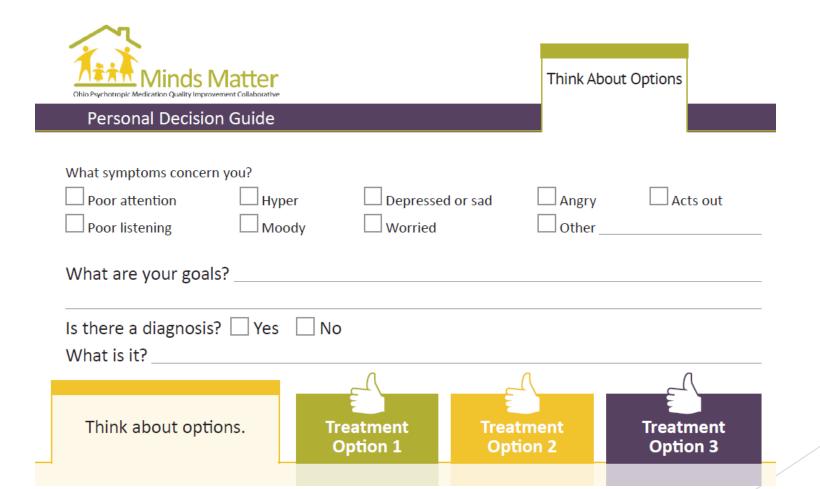
Shared Decision Making Toolkit

- ◆ Tools to empower consumers to actively participate in the shared decision making process
- Preparing for Mental Health Visit Questions
- Personal Decision Guide
- Information Sharing Checklist
- Medication Side Effects Watch List
- Tailored for youth in foster care
- Video for parents/caregivers/youth
- ◆ Training module for workers in utilizing the tools with parents/caregivers/youth
- ◆ Fact sheets for parents/caregivers/youth



Education, Empowerment, Safety

Personal Decision Guide



Medication Side Effects Watch List

Any medications may cause common, general side effects such as:

Tips about medications

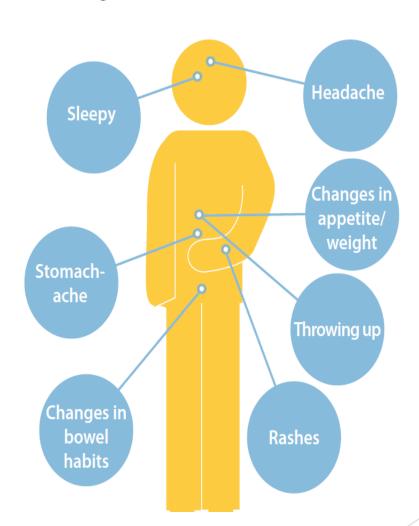
- Medications treat the symptoms of mental conditions.
- They cannot cure the condition, but they can help you feel and function better.
- Medications work differently for different people.
- There may be other uses for medications which is called "off-label."
- You should have therapy along with your medication.

About side effects

If these happen right after starting medication, they might be side effects. Some side effects go away with time.

About this watch list

Common side effects are listed, but there may be others you want to discuss with your doctor.



Information for Foster Care



Post-Emancipation

Foster Care

If you are turning 18:





Keep your health insurance:

- You can still get free Medicaid. Apply at medicaid.ohio.gov/ forohioans/programs/ fostercare.aspx
- Know your social security number.
- Keep the phone number for your health plan.

Phone #:_

(•

If you have to change doctors:

- Get your medical records.
- Keep a list of your past doctors and your prescriptions.
- Call your health plan to get a new doctor.
- Visit your new doctor for regular check-ups and to discuss any health issues.

Parent Fact Sheet Example



What every parent needs to know about Attention Deficit/Hyperactivity Disorder (ADHD)

WHAT IS ADHD?

Attention Deficit/Hyperactivity Disorder (ADHD) is a condition which includes difficulties with attention, increased activity, and difficulties with impulsivity.

WHAT ARE THE SYMPTOMS?

- Trouble paying attention
- Doesn't pay attention to details and makes careless mistakes
- Easily distracted
- Loses and forgets to do things
- Trouble finishing work
- Trouble listening or following directions
- Leaves seat and runs about or climbs excessively
- Blurts out answers
- Impatient
- Fidgets or squirms
- Talks too much
- Has difficulty playing quietly
- Interrupts or intrudes on others

HOW IS IT DIAGNOSED?

ADHD is usually first diagnosed during the elementary school years. A doctor will evaluate your child. Most likely, you and your child's teacher will be asked to complete a questionnaire.

HOW IS IT TREATED?

Medication can help improve attention and focus. However, it is important to discuss the risks and benefits of medication with your child's doctor.

Other treatment approaches may include therapy, social skills training, parent education, and modifications to your child's education program.

WHAT CAN I DO?

- Work with your child's doctor and teacher
- Establish structure and stick to it
- Set clear expectations and rules
- Use praise and positive reinforcement
- Encourage exercise and sleep
- Help your child eat right

WHERE CAN I GET HELP?



See the ADHD Parent Resources Section in the Minds Matter Tool Kit.

Consumer and Community Engagement: Access and Coordination

Pilot Region Care Coordination

- Facilitated collaboration between local agencies and providers
- Identified opportunities to increase coordination of services within each region
- Helped connect Medicaid Managed Care Plans to the early adopters to provide clarifications on medication prior authorization process, facilitate care coordination opportunities, and share feedback on prescribing data

Project Outcomes

Evaluation Measures

- ► Use of 2 or more AAP medications for more than 2 months duration;
- ► Use of 4 or more psychotropic medications for more than 2 months duration;
- Any use of AAP medications by young children (2-5 years of age).

Evaluation Design-Provider Engagement

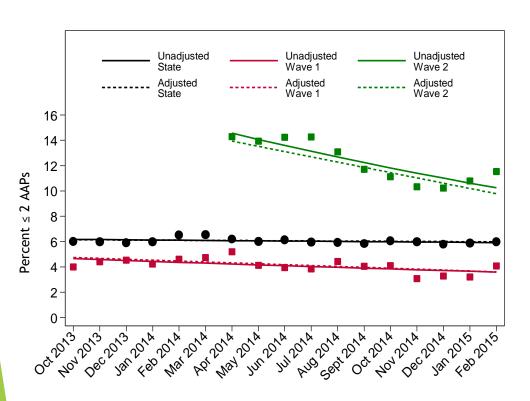
- 1. Assess change in proportion of children on psychotropic medications with prescribing patterns that exceed thresholds identified in SMART Aims.
 - Using random effects logistic regression analysis for interaction between time and intervention with adjustment for case mix (age, race, gender, eligibility status, diagnosis, psychiatric and medical comorbidity).
- 2. Control for changes in population over time ("patient churn") by tracking prescribing experienced by individual children over time.
 - Using Cox proportional hazards analysis for length of time to transition a child on a roster to within guidelines treatment.
- 3. Assess impact on capacity to serve mental health conditions.
 - Using proportion of children served by provider type.
- 4. Assess impact of participation on provider knowledge, skills & capacity.
 - Using provider feedback survey.

Evaluation Design-Consumer and Community Engagement

- 5. Impact on empowerment and participation in mental health care across systems of care.
 - Using community stakeholder and consumer interviews.

Design 1: Reduction in prevalence of ≥ 2 AAPs

Percent of children on psychotropic medication with ≥ 2 AAPs



Change over time (adjusted):

--- Wave 1 (n=2,130) 23.8% reduction*
--- Wave 2 (n=1,170) 29.8% reduction*
--- State (n=27,521) 2.6% reduction, ns

Summary:

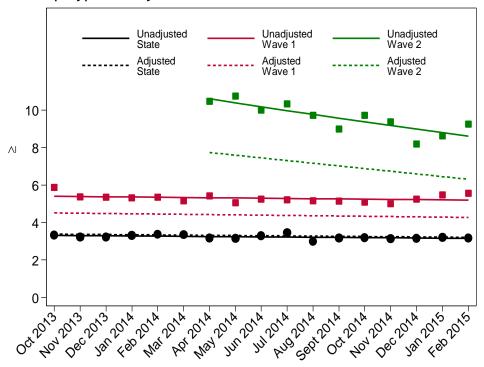
- Among Wave 1 and 2 early adopters, there was a significant reduction in the prevalence of children on
 ≥ 2 AAPs.
- In contrast the prevalence in the state was unchanged.

Note: Wave 1 providers include higher proportion of children's hospitals and pediatrician practices. Wave 2 providers include higher proportion of CMHCs and residential treatment.

^{*}Significant, p<.05

Design 1: Reduction in prevalence of ≥ 4 psychotropic medications

Percent of children on psychotropic medication with polypharmacy ≥ 4



Change over time (adjusted):

--- Wave 1 (n=8,222) 3.9% reduction, ns --- Wave 2 (n=3,412) 18.8% reduction* --- State (n=143,057) 4.5% reduction*

Summary:

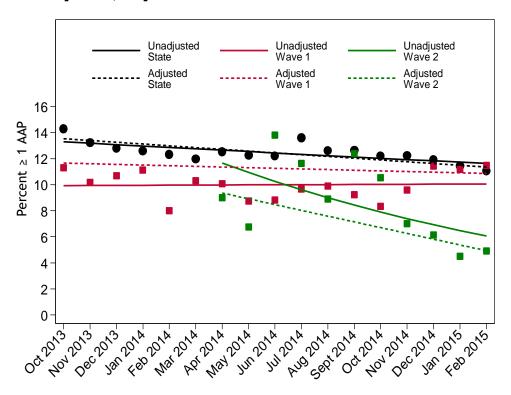
- Among Wave 2 early adopters and state, there was a significant reduction in the prevalence of children on ≥ 4 psychotropic medications.
- Reduction in prevalence was significantly greater for Wave 2 than state during the same timeframe.
- No change in the prevalence among children seen by Wave 1 early adopters.

Note: Wave 1 providers include higher proportion of children's hospitals and pediatrician practices. Wave 2 providers include higher proportion of Community Mental Health Centers (CMHCs) and residential treatment.

^{*}Significant, p<.05

Design 1: Reduction in prevalence of AAP use among children 2 to 5 years on any psychotropic medication

Percent of children between 2 and 5 years on an AAP [N=146,260]



Change over time (adjusted):

- --- Wave 1 (n=646) 6.9% reduction, ns
- -- Wave 2 (n=277) 47.5% reduction*
- --- State (n=9,649) 16.1% reduction*

Summary:

- Among Wave 2 early adopters and state, there was a significant reduction in the prevalence of AAP use among young children (2 - 5 years of age) on a psychotropic medication.
- No change in the prevalence among children seen by Wave 1 early adopters.

Note: Wave 1 providers include higher proportion of children's hospitals and pediatrician practices. Wave 2 providers include higher proportion of CMHCs and residential treatment.

*Significant, p<.05

Design 1 Outcomes Summary

- ► Overall, OMM providers in Waves 1 and 2 demonstrated reduction in prevalence of AAP polypharmacy relative to statewide trends during the same timeframe.
- Wave 2 OMM and state providers showed reduction in prevalence of ≥ 4 psychotropic medications and AAP use among young children (2-5 years of age); however, Wave 2 providers showed greater reduction in prevalence of ≥ 4 psychotropic medications than state.
- Wave 1 OMM providers demonstrated no change in prevalence of ≥ 4 psychotropic medications or prevalence of AAPs by young children.

Design 1: Prevalence Among Children in Foster Care

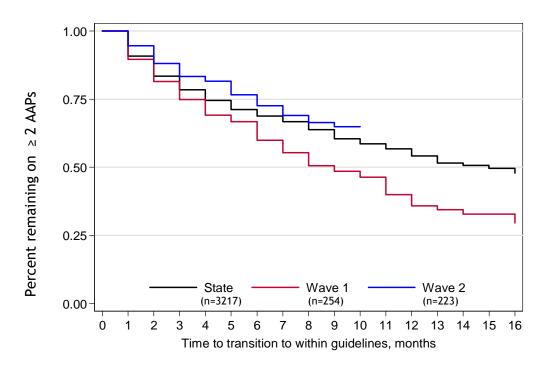
	OMM Foster		OMM Non Foster	
	Pre	Post	Pre	Post
≥ 2 AAPs	13.3% (n=128)	15.2 % (n=105)	8.0 % (n=1,378)	7.1 % (n=1,347)
≥ 4 Psych	17.3% (n=224)	12.9 % (n=220)	7.5 % (n=5,077	7.0 % (<i>n</i> =5,127)

Outcome Summary

- Overall, the rate of polypharmacy and prescribing AAPs to young children remained higher among children in foster care relative to non-foster care.
- No statistically significant differences were identified in the rate of change in prevalence of quality indicators among foster and non foster children.

Design 2: Time to Transition Children to Within Guidelines for AAP Polypharmacy

Percent of children with ≥ 2 AAPs who transition to within guidelines each month*



• Based on survival analysis of prescribing data for individual children over time

Median Time to Transition

OMM (Wave 1): 9 monthsStatewide: 15 months

Wave 1-State Hazard Ratio = 1.42 (1.14 - 1.76)* Wave 2-State Hazard Ratio = .81 (.59 - 1.10), ns

Summary:

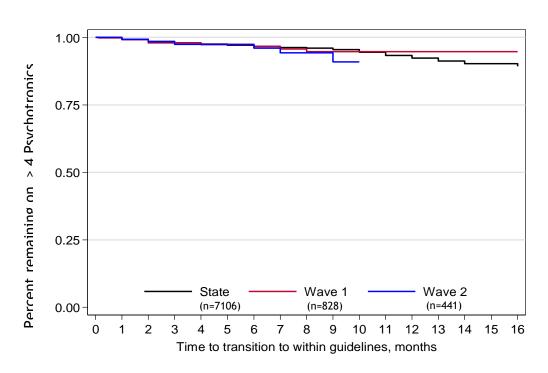
- Length of exposure was 6 months less among children with ≥ 2 AAPs seen by Wave 1 providers compared to the state.
- The likelihood of transitioning to treatment within guidelines was 35% greater for wave 1 than for the state.

Note: The likelihood of transitioning to treatment within guidelines was 35% greater for wave 1 than for the state.

^{*}Significant, p<.05

Design 2: Time to Transition Children to Within Guidelines for Psychotropic Polypharmacy

Percent of children with ≥ 4 psychotropics who transition to within guidelines each month*



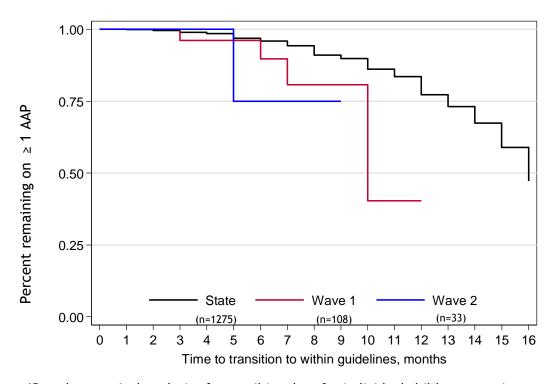
*Based on survival analysis of prescribing data for individual children over time

Wave 1-State Hazard Ratio = .85 (.63 - 1.14), ns Wave 2-State Hazard Ratio = .88 (.59 - 1.31), ns

Note: The likelihood of transitioning to treatment within guidelines was no different for wave 1, wave 2 and state

Design 2: Time to Transition Children to Within Guidelines for Young Children

Percent of young children on AAPs who transition to within guidelines each month*



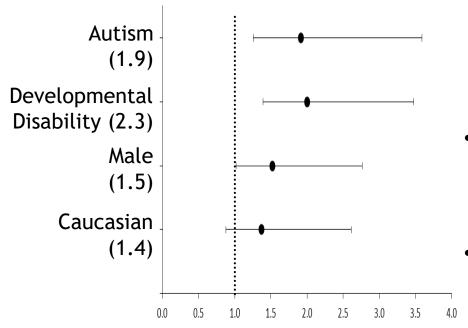
*Based on survival analysis of prescribing data for individual children over time

Wave 1-State Hazard Ratio = .88 (.37 - 2.07), ns Wave 2-State Hazard Ratio = .48 (.06 - 3.60), ns

Note: The likelihood of transitioning to treatment within guidelines was no different for wave 1, wave 2 and state

Design 2: Caseload Mix and Population

Characteristics of children more likely to remain above prescribing guidelines (odds ratios)

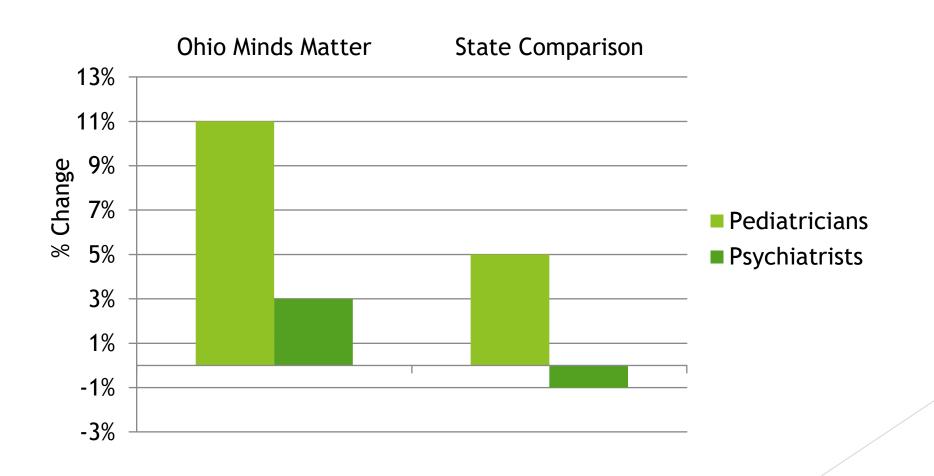


- Children without a diagnosis of autism or developmental disability were more likely to transition to within guidelines treatment than children who had these diagnoses.
- Also, females were more likely to be transitioned to within guidelines treatment than males.
- Additional analyses are underway to explore differences related to diagnostic profile

Design 2 Outcomes Summary

- ► For one of the three measures (AAP polypharmacy), results revealed reduced length of exposure and more rapid transition to within guidelines for children served by Minds Matter providers in Wave 1 relative to state.
- Among children exposed to ≥2 AAPs, those served by OMM providers had a median of 6 months less exposure during the 16 month study period.
- Exposure was longer for males and those children with autism or a developmental disability.

Design 3: Increased Identification of Mental Health Conditions



Design 3 Outcomes Summary

- ► OMM providers demonstrated a larger capacity to serve children with mental health conditions relative to state providers.
- ► The increase in capacity to serve children with mental health conditions were greater for pediatricians than for psychiatrists.

Design 4: Increased Provider Knowledge and Skills

Benefits	Non Psychiatrist (n=15)	Psychiatrist (n=10)
Increased <i>confidence</i> to address needs of	67%	40%
children with Serious Emotional Disorders		
Increased <i>knowledge</i> about safe and	60%	44%
effective treatment		
Improved <i>communication</i> with parents	53%	30%
and caregivers		
Improved engagement of parents/	53%	40%
caregivers in treatment decisions		

Design 4: Improved Clinical Capacity

- Practice level feedback improves clinical management
 - Identify children outside prescribing guidelines
 - Provide medical directors with a tool for training and supervision
- Increase evidenced-based mental health clinical knowledge
 - Algorithms represent detailed outline of best practice
 - Comprehensive teaching tools as well as "refresher" for seasoned clinicians
 - Pediatricians and other clinicians gain knowledge and confidence in diagnosing and treating mental health conditions
 - Provides non-mental health clinicians with guidelines

Design 5: Reported Benefits Across Systems of Care

- Improved engagement and accountability through effective shared decision making tools
 - Empowers youth to participate and track progress and parents to advocate for their children
 - Increases family and patient buy-in for more active participation in treatment
 - Helps build cooperative relationships between clinicians/workers and families for improved communication and outcomes
 - Highlights that each child is unique and discourages a "cookie cutter" approach to mental health treatment
 - Emphasizes importance of other treatment modalities in addition to medication
 - Exposes youth to the diagnostic process to help them look at their behaviors more objectively
 - Facilitates information sharing across systems and serves as a check and balance of prescribing patterns

Design 5: Reported Benefits Across Systems of Care

- Increased care coordination
 - Encourages and facilitates partnerships across systems of care
 - Enables schools, courts and agencies to be a cooperative component in care
- Evidence based tools advance credible, shared knowledge base
 - Guidelines allow workers from all systems to speak "common" language
 - Reduces communication gaps and barriers between systems
 - Provides nurse practitioners and social workers with tools and information to monitor patient medication regimens, alert prescribing clinicians to safe prescribing practices, and motivate clinician engagement
 - ◆ Eases burden on families by providing a "one stop shop" for trusted information and resources including medication side effects watch list

Design 5: Reported Benefits Across Systems of Care

- Improved long range care planning and efficiency
 - Helps families, clinicians and workers think about the totality of the patient's circumstances, form a long term plan of care, and establish communication for continued follow through
 - Enhances cross-system communication for efficient service delivery
 - Facilitates efficient appointments because family, clinician and worker are on same page

Design 5: Feedback from Consumers and Workers

- "The toolkit gives me confidence that my opinion is important." - Foster parent
- "I wish I had this years ago!" 17 year old female
- "Make sure she has the toolkit!" 15 year old female to a foster parent
- "We've been dreaming of something like this for years!" -Child welfare case worker
- "If only I would have had this when my foster children were younger!" Foster parent

- Systems of care are fragmented and/or lacking coordination
- ► There is a need to bridge system gaps, integrate care, and establish public and private partnerships
 - ◆ Public-private partnerships with high impact providers, multiple points of access & other systems of care helps bridge gaps for children with complex needs
- Culturally & linguistically appropriate shared decision making for youth, family & doctors is essential to facilitating personal responsibility for health care

- ► There is a need to improve the understanding & the prescribing of psychotropic meds among systems of care workforce
- Education alone does not change behaviors/improve access
- Meaningful and rapid data feedback to clinicians and practices may help to improve clinical accountability
- Cross system partnerships and informed, engaged consumers support accountability and efficiency

- Large scale and diverse participation is needed to impact change
 - Make participation for busy clinicians feasible, desirable and/or necessary
 - Identify and engage prescribing hot spotters (large primary care providers and hospital systems and outlying prescribers)
 - Use champions to reach out to new clinicians/resistant providers
 - Quality improvement is not sufficient incentive for every provider
 - Engage community mental health centers, residential programs and Federal Qualified Health Centers (FQHCs)
 - Use child service agencies as champions

Lessons Learned: Return on Investment

- Among children in FFS (including foster care), median pharmacy cost savings associated with transition to within guidelines treatment was at least \$154 per month¹
- ▶ Based on wave 1 results, children served by OMM providers who were on ≥ 2 AAPs transitioned 6 months sooner than state average
- ▶ If length of exposure was reduced by 6 months, total state pharmaceutical savings could be as high as \$2.88 million²
- Non-monetized benefits include improved patient safety
 - 1. Data Source: Fee-for-service pharmacy data from October, 2013 February, 2015 for Wave 1 Minds Matter early adopter patients (n=27).
 - 2. N = 3,214 children in the state received ≥ 2 AAPs from October, 2013 February, 2015

Next Steps for Minds Matter

Next Steps for Minds Matter

- Existing funding for the collaborative ends November 2015
- Bridge funding contribution with OhioMHAS to support prescribing pattern feedback until HEDIS Atypical Antipsychotic (AAP) Medication measure is incorporated into managed care contracts
- Continued engagement of Clinical Advisory Panel
- Web-based resources will remain available

Contact

- For more information see Minds Matter website:
 - www.ohiomindsmatter.org
- **Contact:**
 - Submit a contact form via the Minds Matter website.
- Pediatric Psychiatry Network (PPN):
 - http://ppn.mh.ohio.gov/default.aspx
 - ◆ (877) PSY OHIO
 - **♦** (877) 779 6446