AUTISM TECHNICAL ADVISORY GROUP

Recommendations to the Insurance Commissioner on Medically Necessary Coverage of Habilitative Services for Children with Autism and Autism Spectrum Disorders

April 2012

Martin O’Malley
Governor

Anthony G. Brown
Lt. Governor

Joshua M. Sharfstein, MD
Secretary, Department of Health and Mental Hygiene
# Table of Contents

**Executive Summary** .................................................................................................................. 3

Background ........................................................................................................................................ 5

Literature and Data Review ............................................................................................................... 8

Autism Legislation in Other States ................................................................................................. 11

Public Comment ................................................................................................................................ 13

Recommendations ............................................................................................................................. 13

Appendix A: Maryland Commission on Autism Evidence Based Practice Guidelines ............... 16

Appendix B: Maryland Autism Technical Advisory Group .............................................................. 17
Executive Summary

In 2012, a law passed by the Maryland General Assembly and signed by Governor Martin O’Malley charged the Maryland Department of Health and Mental Hygiene (DHMH) with convening an Autism Technical Advisory Group (ATAG) of experts to develop recommendations to the Insurance Commissioner regarding the medically necessary coverage of habilitative services for children with autism and autism spectrum disorders (ASD). The ATAG reviewed literature and guidelines on current evidence based treatments for autism spectrum disorders, as well as insurance mandates from other states. The ATAG also heard reports from the Maryland Insurance Administration and a private payer regarding current coverage for habilitative services and from the Maryland State Department of Education regarding the autism waiver and its associated school-based services. A public comment period was held to give the general public and other stakeholders the opportunity to provide their input. Sixty-three individuals submitted written comment and ten individuals provided verbal testimony.

After careful consideration of the scientific literature, review of actions in other states, and consideration of the testimony heard, the following are the findings and recommendations of the ATAG:

- Children 18 months of age through their 6th birthday with a diagnosis of ASD should receive 25 hours per week of comprehensive, individualized habilitative services that address social interactions, communication and language, and maladaptive behaviors. Prescriptions for habilitative services should be written by a licensed physician, with treatment goal(s) specified. Each child’s progress should be reviewed annually by the primary care physician or specialty physician and the child’s treatment team or therapeutic care team to determine if the current intervention plan is effective. Documentation of benefit will be required to continue coverage.

- Children aged 6 through their 19th birthday with a diagnosis of ASD should receive 10 hours per week of habilitative services beyond those received during the school day. Needs for leisure, recreation and family time should be considered when determining the number of hours of services outside the school day. Prescriptions for habilitative services should be written by a licensed physician, with treatment goal(s) specified. Each child’s progress should be reviewed annually by the primary care physician or specialty physician and the child’s treatment team or therapeutic care team to determine if the current intervention plan is effective. Documentation of benefit will be required to continue coverage.
Comprehensive habilitative services should be evidence-based and should include, but are not limited to:

- Behavioral health treatment, which refers to counseling and treatment programs, including applied behavior analysis, that are:
  - necessary to develop, maintain, or restore, to the maximum extent practicable, the functioning of an individual; and
  - provided by a Board Certified Behavior Analyst (BCBA) or Board Certified Assistant Behavior Analyst (BCABC), supervised by a BCBA or by a licensed psychologist so long as the services performed are commensurate with the psychologist's university training and supervised experience.

- Psychological care, which refers to direct or consultative services provided by a psychologist or social worker licensed in the state in which the psychologist or social worker practices.

- Therapeutic care, which refers to services provided by licensed or certified speech therapists, occupational therapists, or physical therapists
Recommendations for Medically Necessary Habilitative Services for Autism

**Background**

Senate Bill 744 and House Bill 1055 of 2012 charged the Maryland Department of Health and Mental Hygiene (DHMH) with convening an Autism Technical Advisory Group (ATAG) to develop recommendations to the Insurance Commissioner regarding the medically necessary coverage of habilitative services for children with autism and autism spectrum disorders. The advisory group was to consist of experts in the treatment of autism and autism spectrum disorders, and was to consider recommendations that are objective; clinically valid; compatible with established principles of health care; and flexible enough to allow for deviations from norms when justified on a case by case basis.

The literature on current evidence based treatments for autism spectrum disorders was reviewed and the ATAG heard reports from the Maryland Insurance Administration regarding current coverage for habilitative services. The Medical Director of CareFirst presented to the ATAG on their handling of claims for habilitative services, and representatives from the Maryland State Department of Education reported on the current status of the Autism Waiver in terms of population served and services covered. Public testimony was heard, in addition to an open public comment period, and autism specific insurance legislation from other states was reviewed.

Autism and autism spectrum disorders (ASD) are a group of developmental disorders which are manifested by impairments in communication, social interactions and stereotyped and repetitive behaviors. These disorders are often accompanied by intellectual disability and a host of complex behavioral challenges. Children diagnosed with ASD require multiple interventions in order to address their needs, often including speech and language therapy, occupational therapy and behavioral therapy. These interventions are delivered by a variety of service providers, including early intervention programs, K-12 educational systems and private providers. The prevalence of ASD has most recently been estimated at 1 in 88 children\(^1\) in 2012 by the CDC’s Autism and Developmental Disabilities Monitoring Network. Maryland is one of the states participating in this monitoring, and state prevalence is a bit higher, at 1 in 80 children.

ASD treatment is centered on interventions aimed at improving functioning in core deficit areas as well as other areas in order to maximize a child’s developmental progress. These target areas include communication, problem-solving skills, adaptive skills, social skills, self-regulation, and attention. They are addressed through speech and language therapy, occupational therapy, physical therapy, behavioral therapy, and medications. Early intervention programs are intended to address many of the treatment needs, although these are variable depending on resources of the local program. School-based services for school-aged children are limited to addressing skills that affect a child’s ability to access their educational program. Therefore, if a child is having significant difficulty with adaptive skills, temper tantrums or aggression at home, social cognition, social communication or emotion regulation, these would not be addressed through educational services.

---

Families with children diagnosed with ASD have significant challenges in obtaining health care, and financial barriers play a major role. The 2009-10 National Survey of Children with Special Health Care Needs (NS-CSHCN) revealed that although 92.4% of Maryland children with special health care needs (CSHCN) are insured, 34.7% of their families indicate that their insurance is inadequate to meet their needs. Among CSHCN who have emotional, behavioral or developmental concerns, 43.8% indicate that insurance is inadequate. This is demonstrated by the fact that out-of-pocket spending is greater for families of children with ASD than for families of children with any SHCN. According to the 2010 Maryland Parent Survey, 30.6% of families of children with ASD spend between $1000 - $5000 per year compared to 27.6% of families of children with any SHCN, and 21% of families of children with ASD spend over $5000 yearly compared to 14.9% of families of children with any SHCN.

In summary, while most children with ASD in Maryland have insurance their families continue to face financial barriers to health care. Despite current legislation surrounding habilitative services, children with emotional, behavioral or developmental concerns, including ASD, have difficulty accessing services.

**Current Legislation and Health Plan Coverage**

Maryland currently has legislation (§ 15-835 of the Insurance Article) which requires insurers that provide services “on an expense-incurred basis under health insurance policies or contracts that are issued or delivered in the State” to provide coverage for habilitative services for children under 19 years of age. “Habilitative services are defined as “services, including occupational therapy, physical therapy, and speech therapy, for the treatment of a child with a congenital or genetic birth defect to enhance the child’s ability to function”. While this is not an exclusive definition, it has been interpreted as applying to only occupational, physical and speech therapy.

Tinna Quigley, a representative of the MIA presented to the ATAG on the current enforcement of this legislation. This enforcement is provided in two ways – through contract review and through complaint investigation. The MIA reviews every contract for regulated health plans before they are approved for sale. If the contracts don’t contain coverage for habilitative services, the MIA will not allow the plans to sell in Maryland. The appeals and grievances unit investigates medical necessity complaints, while the life and health unit handles other types of complaints (such as the amount of the deductible). Medical necessity is determined by an independent review organization and the MIA typically supports the recommendation that is returned. There is not specific information available regarding coverage of services other than occupational, physical and speech therapy or complaints pertaining to behavioral therapy.

---

Dr. Charles Medani, the Pediatric Medical Director for CareFirst BlueCross BlueShield, presented on this carrier’s approach to coverage of habilitative services. Coverage provided to individuals is based on the type of contract under which they are covered. Self-insured contracts are those in which an employer purchases services and the carrier administers the plan. These contracts are not subject to state insurance legislation (unregulated market). For plans that are subject to insurance mandates (regulated market), services specifically cited in the legislation (such as physical and occupational therapy) are not subject to a review by CareFirst regarding the evidence base of the therapy.

When habilitative services are requested, the request goes to the medical policy unit for review if there is a benefit for that service. The vast majority of requests do not face medical review. For non-traditional services determinations are made on a case-by-case basis. Medical reviews are typically conducted by registered nurses (RNs), who are trained to review cases in a particular clinical area. The patient’s physician must submit a medical history and care plan, although they rarely consider these in making determinations, as most effective and safe services are approved. Denials cannot be issued by the RN but must come from physician review.

CareFirst does not cover educational services, and the determination of educational versus medical is typically made by case review and discussion with the case manager. If a child requires a service that is not being received at school and has a benefit, that child will likely be covered. Discussion of Applied Behavioral Analysis (ABA) specifically revealed that CareFirst considers this to be experimental and investigational, and Dr. Medani cited a recent RAND report.

Services Provided by MSDE

Testimony was provided by June Cohen and Marjorie Schulbank from MSDE regarding services provided by the Maryland State Department of Education (MSDE). The Autism Waiver in Maryland is administered by MSDE. Eligibility is determined by a child's level of need, risk for institutionalization and child's income/assets (not those of the family). There are currently 900 slots on the waiver with recent state funding approved for another 10 slots. There are 3,800 children waiting for their application to be reviewed, and the typical wait to receive services is over 5 years. Services offered include intensive individual support services (capped at 25 hours per week), therapeutic integration (capped at 20 hours per week), and respite services. There is a review process for residential habilitation and service coordination is provided on regular basis. The total cost of services provided through the waiver is $22 million annually for 900 children.

The waiver program has been evaluated by Towson University through consumer satisfaction surveys on quality of life. Researchers have found that families still have a lower quality of life than

those without children with autism, but there is some improvement. There is also a difference in employment as more parents were able to go back to work.

Services are provided in the school system through a combination of state, local, and federal funds, however, services vary widely by county. Services that a child receives might depend on the amount of providers in a given school system. There also may be situations where IEPs send children to non-public schools.

**Literature and Data Review**

In order to complete its charge, the ATAG reviewed the findings of several groups with regard to evidence based treatment for autism. The Behavior Analyst Certification Board defines applied behavior analysis as an “applied science that develops methods of changing behavior and a profession that provides services to meet diverse behavioral needs”. Despite this accurate and broad definition of ABA, this term is often used to refer to a very specific type of behavioral intervention, discrete trial training. This intervention consists of structured sessions in which the child is given prompts to demonstrate a target behavior (such as “look at me”; “put in”; label an object, etc.). Target behaviors increase in complexity as the child progresses.

Several review studies were examined by the group. In 2008 Ospina and colleagues at University of Alberta reviewed 31 studies of discrete trial training with a total of 770 participants. They found inconsistent results, but overall better outcomes were better than no treatment or regular instruction for motor and functional skills. Results were variable when compared to special education, and there was no difference compared to other autism specific interventions. The overall conclusion of this review was that behavioral intervention works for children with ASD, but that there is not good evidence for one specific type of intervention (such as communication-focused interventions, environmental modifications, developmental approaches or ABA) over another.

A second review from April 2011 was done for the Agency for Healthcare Research and Quality (AHRQ). Seventy-eight behavioral studies were reviewed with positive findings for a variety of behavioral interventions, and some specific advantages for discrete trial training, however the strength of the evidence was described as low. Study quality was assessed using the following criteria: study design, diagnostic approach, participant ascertainment, intervention characteristics, participation.

---


outcomes measurement, statistical analysis, and applicability. The AHRQ review concluded that there is some support for intensive behavioral and developmental intervention (greater than 30 hours per week) but these studies require replication, and need to be studied in non-research settings.

The RAND Report was published in the November 2012 issue of *Pediatrics*.\(^6\) This group brought together an expert panel to review evidence on nonmedical autism treatments and create guidelines. Moderate evidence was found for behavioral intervention resulting in improvement in language, adaptive skills and IQ, though there was not enough evidence to point to use of one specific intervention over another. A dose response effect for behavioral interventions was noted for language and adaptive skills. Recommendations for amount of intervention were for children to receive direct intervention for a minimum of 25 hours per week 12 months a year. Although older individuals were considered in need of direct intervention, models of service and amount of time were considered inconclusive. Finally, the RAND report guidelines stated the following:

- Interventions specifically targeting social communication and social skills should be offered to individuals with ASDs.
- Those with limited language or not improving in multiple interventions for communication should be offered the opportunity to use the Picture Exchange Communication System (PECS) with ongoing monitoring and intervention.
- Augmentative or Alternative Communication should be considered if PECS not successful.

In addition to the medical literature, various groups have published guidelines concerning the treatment of children with ASD. A December 2008 Autism Task Force Report published by MSDE, Division of Special Education/Early Intervention Services: Service Delivery Recommendations for Young Children with Autism drew on recommendations in the 2007 clinical report published in *Pediatrics*.\(^7\) This report included “a functional approach to behaviors” as one of the essential elements of intervention. The amount of direct intervention recommended was 10 to 20 hours per week (begin with minimum of 10 hours and increase as tolerated) for birth to 3 years; and 15 – 30 hours per week (begin with minimum of 15 hours and increase as tolerated) for children aged 3 to 5 years.

---


The Maryland Commission on Autism completed its report to the legislature in September 2012. The Evidence Based Practice workgroup did not make recommendations regarding specific interventions, but did provide guidelines for creating individual treatment plans for children and adults with ASD. Guidelines were also provided for evaluating the status of an intervention ranging from practice-based evidence to promising practices to evidence-based practice.

The 2009 report of the National Standards Project, of the National Autism Center, a non-profit organization advocating evidence-based treatment for ASD, utilized a large group of expert panelists and reviewers to determine treatments that were considered ‘established, emerging, or unestablished.’ The National Standards Project is a large systematic evidence review performed by the National Autism Center. Studies were chosen based on having a focus on ASD, defined as Autistic Disorder, Asperger’s Syndrome, or Pervasive Developmental Disorder–Not Otherwise Specified (PDD-NOS). Child focused interventions (as opposed to parent-focused, for example), and publication in a peer reviewed journal were the other inclusion criteria for this systematic review. There 5 exclusionary criteria as well. Studies were excluded if: 1) children had uncommon co-morbid conditions; 2) treatment was not educational or behavioral in nature; 3) they did not present empirical data and quantitative analysis; 4) the primary focus was on mediating factors and not treatment outcome; and 5) data was not available separately for those less than 22 years of age.

Established treatments were considered those “which several well-controlled studies have shown the intervention to produce beneficial effects. There is compelling scientific evidence to show these treatments are effective.” The following interventions were cited as Established Treatments:

- Antecedent Package
- Behavioral Package
- Comprehensive Behavioral Treatment for Young Children
- Joint Attention Intervention
- Modeling
- Naturalistic Teaching Strategies
- Peer Training Package
- Pivotal Response Treatment
- Schedules
- Self-management
- Story-based Intervention Package

---


The National Professional Development Center on ASD, a multi-university center promoting evidence-based practice in the treatment of ASD, provides a list of evidence-based practices for children and youth that is periodically updated. The current list is as follows:

- Antecedent-Based Interventions (ABI)
- Computer-Aided Instruction
- Differential Reinforcement
- Discrete Trial Training
- Extinction
- Functional Behavior Assessment
- Functional Communication Training
- Naturalistic Intervention
- Parent-Implemented Intervention
- Peer-Mediated Instruction and Intervention
- Picture Exchange Communication System (PECS)
- Pivotal Response Training
- Prompting
- Reinforcement
- Response Interruption/Redirection
- Self-Management
- Social Narratives
- Social Skills Groups
- Speech Generating Devices/VOCA
- Structured Work Systems
- Task Analysis
- Time Delay
- Video Modeling
- Visual Supports

**Autism Legislation in Other States**

Currently, 34 states have legislation requiring coverage of treatment for ASD. Mandates vary from more limited to very broad coverage, as well as in the requirement for specific professionals to prescribe or monitor the therapy. Caps on coverage also vary among states. Some representative samples are provided here.\(^\text{10}\)

**Arizona:**

Speech language services are not clearly defined in the statute. However, behavioral therapy is specifically defined as applied behavioral analysis and coverage limitations for behavioral therapy are set out.

**Delaware:**
Requires all health benefit plans to provide coverage for the screening and diagnosis of autism spectrum disorders and the treatment of autism spectrum disorders in individuals less than 21 years of age. Treatment includes: behavioral health treatment; pharmacy care; psychiatric care; psychological care; therapeutic care (including services provided by a speech, occupational, or physical therapists or an aide or assistant under their supervision); items and equipment necessary to provide, receive, or advance in the above listed services, including those necessary for applied behavioral analysis; and any care for individuals with autism spectrum disorders that is determined by the Secretary of the Department of Health and Social Services, based upon their review of best practices and/or evidence-based research, to be medically necessary.

Coverage under this section shall not be denied on the basis that the treatment is habilitative or non-restorative in nature.

**Illinois:**
Requires certain health insurers to provide individuals under 21 years of age coverage for the diagnosis of autism spectrum disorders and for the treatment of autism spectrum disorders. Treatment includes the following care prescribed, provided, or ordered for an individual diagnosed with an autism spectrum disorder by (A) a physician licensed to practice medicine in all its branches, or (B) a certified, registered, or licensed health care professional with expertise in treating effects of autism spectrum disorders when the care is determined to be medically necessary and ordered by a physician licensed to practice medicine in all its branches; psychiatric care, meaning direct, consultative, or diagnostic services provided by a licensed psychiatrist; psychological care, meaning direct or consultative services provided by a licensed psychologist; habilitative or rehabilitative care, meaning professional, counseling, and guidance services and treatment programs, including applied behavior analysis, that are intended to develop, maintain, and restore the functioning of an individual; therapeutic care, including behavioral, speech, occupational, and physical therapies. Coverage provided shall be subject to a maximum benefit of $36,000 per year, but shall not be subject to any limits on the number of visits to a service provider.

**Indiana:**
Note: Speech language services are not specifically defined in the statute. Coverage is "limited to treatment that is prescribed by the insured's treating physician in accordance with a treatment plan."

**Kansas:**
Coverage for benefits for any covered person diagnosed with one or more autism spectrum disorders and whose age is between birth and less than seven years shall not exceed $36,000 per year. Coverage for benefits for any covered person diagnosed with one or more autism spectrum disorders...
disorders and whose age is at least seven years and less than 19 years shall not exceed $27,000 per year.

**Kentucky:**
Coverage under this section shall be subject to a maximum annual benefit per covered individual as follows: for individuals between the ages of one (1) through their seventh birthday, the maximum annual benefit shall be $50,000 per individual; for individuals between the ages of seven (7) through 21, the maximum benefit shall be $1,000, per month per individual.

In addition to state mandates, the federal government’s Office of Personnel Management announced in December 2012 that it would permit coverage for applied behavioral analysis in its federal employee health benefits; previously such coverage was denied as it was deemed “educational.”

**Public Comment**
A public comment period was held in December, 2012 to give the general public and other stakeholders the opportunity to provide their opinion to the ATAG. Of the 63 written comments received, 62 were in support of a mandate for habilitative services for children with ASD. One written comment argued against a mandate for habilitative services. In addition to written comment, 10 individuals provided verbal testimony at ATAG meetings. All 10 verbal testimonies were supportive of a mandate of habilitative services. All public comments and public testimonies are available on the ATAG website at http://dhmh.maryland.gov/atag/.

**Recommendations**
After careful consideration of the testimony heard, literature and recommendations reviewed, and the clinical expertise of the ATAG, recommendations were formulated regarding insurance coverage for children with ASD. The ATAG developed separate recommendations of intensity of services for children 18 months to age 5 and age 5 through age 19, as well as recommendations for the scope of services and prescription plan and review.

The field of autism treatment continues to evolve. Early intensive intervention provides the best opportunity to maximize long-term functioning and outcomes of children with ASD. Randomized controlled clinical trials have been conducted for some treatments, especially treatments involving applied behavior analysis (ABA), as well as some developmentally-based\textsuperscript{11,12} or integrated

ABA/developmental treatments. Single subject design study designs also contribute to evidence for the efficacy of an intervention method. Generally, sample sizes are not large in the autism treatment studies and this is because these studies are usually federally or foundation funded, rather than being funded through drug companies where budgets are considerably higher and afford substantially larger samples sizes and the conduct of multi-site trials. As noted above in the description of the National Standards Project, empirical and quantitative data are available regarding behavioral treatments for autism. This project is currently being updated to review research conducted since 2007 (verbal communication to one of the ATAG members).

Ages 18 Months to 5 Years

Early intensive intervention provides the best opportunity to maximize long-term functioning and outcomes of children with ASD. Currently in Maryland, a diagnosis of ASD can be made by a licensed physician, licensed psychologist, or licensed speech and language pathologist.

Recommendation: Given that a reliable and stable diagnosis of ASD is not currently made prior to 18 months, children diagnosed with an ASD from 18 months of age through their 6th birthday should receive 25 hours per week of comprehensive, individualized habilitative services that address social interactions, communication and language, and maladaptive behaviors. A prescription with treatment goals should be written by a licensed physician, with yearly review of progress by the primary care physician or specialty physician and the child’s treatment team or therapeutic care team.

Ages 6 to 19 Years

School aged children with ASD continue to require direct intervention; however their needs are often variable depending on their developmental stage and environmental factors. The school system is required to provide services to address a child’s ability to access their educational program, leaving needs specific to the home environment or non-educational concerns to be covered by insurance.

Recommendation: When a specific therapeutic goal is identified, children age 6 through their 19th birthday should receive 10 hours per week of habilitative services beyond those received during

---


the school day. Needs for leisure, recreation and family time should be considered when determining the number of hours of services outside the school day. A prescription with treatment goals should be written by a licensed physician, with yearly review of progress by the primary care physician or specialty physician and the child’s treatment team or therapeutic care team.

Scope of Services

Comprehensive habilitative services should be evidence-based and should include, but are not limited to:

1. Behavioral health treatment, which refers to counseling and treatment programs, including applied behavior analysis, that are:
   a. necessary to develop, maintain, or restore, to the maximum extent practicable, the functioning of an individual; and
   b. provided by a Board Certified Behavior Analyst (BCBA) or Board Certified Assistant Behavior Analyst (BCABC), supervised by a BCBA or by a licensed psychologist so long as the services performed are commensurate with the psychologist’s university training and supervised experience.

2. Psychological care, which refers to direct or consultative services provided by a psychologist or social worker licensed in the state in which the psychologist or social worker practices.

3. Therapeutic care, which refers to services provided by licensed or certified speech therapists, occupational therapists, or physical therapists

Prescription Plan and Review

For children of all ages, prescriptions for habilitative services should be written by a licensed physician, with treatment goal(s) specified. Each child’s progress should be reviewed annually by the primary care physician or specialty physician and the child’s treatment team or therapeutic care team to determine if the current intervention plan is effective. Documentation of benefit will be required to continue coverage. Since treatment is often provided in a step-wise fashion, focusing on one or a few goals at a time, achievement of initial treatment goals may be followed by a new prescription for services with new treatment targets.

These recommendations should not be construed as affecting any obligation to provide services to an individual under current insurance law or through an individualized family service plan, an individualized education program, or an individualized service plan.
Appendix A: Maryland Commission on Autism Evidence Based Practice Guidelines

Evidence-Based Practice, Promising Practice, & Practice-Based Evidence: What’s the difference?

The purpose of this document is to educate providers, policymakers, and others interested in effective interventions about three categories of available interventions. Understanding the ways in which interventions differ could influence the selection and adoption of a new intervention. These categories are evidence-based practice (EBP), promising practice, and practice-based evidence (PBE).

Evidence-based practice (EBP) refers to the integration of the best available research with clinical expertise in the context of youth and family characteristics, culture, and preferences. In other words, the effectiveness of an EBP to help children and families reach desirable outcomes is measured by three vital components:

1) Extent of scientific support of the intervention’s effects, particularly from at least two rigorously designed studies;
2) Clinical opinion, observation, and consensus among recognized experts (for the target population);
3) Degree of fit with the needs, context, culture, and values of families, communities, and neighborhoods.

Promising practice refers to interventions that have some research evidence to indicate that they produce positive outcomes for children and adolescents. Promising practices require additional supporting research evidence to be considered evidence-based practices.

Practice-based evidence (PBE) refers to interventions and strategies that are accepted as effective by the local community (e.g., families, youth, providers, administrators). Therefore, PBE have been tested in the "real world"; however, they typically lack supporting research evidence.

References

The Maryland Child & Adolescent Innovations Institute
The Maryland Child & Adolescent Mental Health Institute
University of Maryland, Baltimore, School of Medicine
Phone: (410) 706-0961; Email: innovations@psych.umaryland.edu
Appendix B: Maryland Autism Technical Advisory Group

**Steven Czinn, MD** (Chair). Dr. Czinn is the chair of the Department of Pediatrics at the University of Maryland School of Medicine.

**Diana Fertsch, MD.** Dr. Fertsch is a practicing pediatrician in the Baltimore area.

**Rebecca Landa, PhD.** Dr. Landa is a speech-language pathologist and the director of the Center for Autism and Related Disorders at Kennedy Krieger Institute.

**Paul Lipkin, MD.** Dr. Lipkin is a pediatrician with expertise in developmental and behavioral pediatrics. He is the Director of the Center for Development and Learning at Kennedy Krieger Institute.

**Trevor Valentine, MD.** Dr. Valentine is a pediatrician with expertise in behavioral and developmental pediatrics. He is an Assistant Professor of Pediatrics at the University of Maryland School of Medicine.