
**Mandated Benefits Review by the
Pennsylvania Health Care
Cost Containment Council**

**House Bill 1150
Autism Spectrum Disorders**



Pennsylvania Health Care Cost Containment Council
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EXECUTIVE SUMMARY

The Pennsylvania Health Care Cost Containment Council is required to review current or proposed mandated health benefits on request of the executive and legislative branches of government [Section 9 of Act 14 of July 17, 2003 (P. L. 31, No. 14) (Act 14)]. The Council's role in conducting reviews of this nature is primarily to determine if sufficient evidence is available to proceed to a formal Mandated Benefits Review Panel as outlined in Act 14, which includes contracting with a panel of outside experts to review the scientific validity of the studies submitted.

In the case of House Bill 1150, sufficient evidence was submitted to the Council to proceed to the formal Mandated Benefits Review Panel process in order to review the scientific validity of the research provided.

Act 14 places the burden of providing scientific data and information regarding proposed mandated benefits on interested parties. While the Council conducts its own research as appropriate, the reviews rely almost entirely upon outside information as detailed in the enabling legislation. In the case of House Bill 1150, the documentation was deemed sufficient to contract with a full Mandated Benefits Review Panel because the submissions included the necessary requirements for such a Panel to fulfill their duties and responsibilities which include: (1) review of the documentation submitted by opponents and proponents, (2) report to the Council on whether the documentation is complete with regard to the eight information categories described in Act 14, whether the research cited meets professional standards, whether all relevant research has been cited in the documentation, and whether the conclusions and interpretation in the document are consistent with the data submitted.

This document presents the results of the Council's preliminary review of House Bill 1150, which would require that individual and group health insurance policies provide coverage for the diagnosis and treatment of individuals under 21 years of age with autism spectrum disorders, subject to a benefit cap of \$36,000 per year, to be adjusted annually (after December 30, 2009) for inflation using the Medical Care Component of the Consumer Price Index for all urban consumers. While the Council will take the necessary steps to contract with a panel of experts to continue this review, some points are noted here that may be of interest to the General Assembly:

- The documentation submitted to the Council confirmed the personal and social impact associated with autism spectrum disorder (ASD). The Department of Public Welfare (DPW) estimates that 13,800 children with ASD are currently being served by its programs. This includes an estimated 6,400 children with autism in the PH-95 category and 7,400 children with autism in regular Medical Assistance (MA).
- Of the 13,800 individuals currently being served by Medical Assistance programs, approximately 7,000 have private insurance coverage, according to DPW estimates. However, many of these 7,000 individuals would not be affected by HB 1150's mandated coverage requirements, which only apply to insurance plans not subject to ERISA preemption.
- Documentation submitted to the Council addressed the costs and financial benefits that might be associated with this bill. Respondents submitted a substantial set of scientific studies and cost estimates. Estimates can vary depending on (1) the number of

individuals who might utilize these benefits, (2) the utilization of benefits under the specific provisions of the bill, and (3) the impact that increased coverage for autism services would have on health care costs.

In determining these costs, respondents submitted conflicting information in a number of key areas:

- Estimating prevalence rates for cost-estimation purposes. Respondents differed widely in their assessments about the proportion of the Commonwealth's population who would utilize services under the bill.
- Changes in benefit-utilization patterns under the bill. Respondents differed substantially on the appropriateness of using current expenditure patterns taken from DPW autism services data to predict future costs under the provisions of the bill. Some respondents argued that the bill's provisions (e.g., a benefit cap of \$36,000; changes in rules governing preauthorization, referral to services, and provider eligibility for reimbursement) could lead to a set of outcomes (e.g., increased utilization of services, changes in the costs of provider services, and the quantity of services consumed) different from those of the current program.
- Findings from other states with autism mandates. Respondents submitted a number of studies and comparisons regarding other states' experiences with mandated insurance coverage requirements for autism. However, the information provided suggested there were substantial differences in other states' laws compared to House Bill 1150, and in the methodological approaches underlying many state findings.
- The estimated future lifetime net savings or net financial benefits provided in the cost and cost-benefit studies provided by respondents were calculated relative to government programs, families with ASD expenses, and/or "to society." These analyses, however, do not fully take into account non-governmental costs or benefits or the potential shift of health care costs from a government program to the private sector related to HB 1150. Estimating net social and economic benefits requires assessing the effects this cost shift would have on health insurance premiums; on total health care consumed by both children with ASD and others in society; the impact of increased insurance premiums on the number of uninsured; and the opportunity costs of potentially reduced private sector consumption of goods and services, among other things. (See Section VII).
- Additionally, there are general caveats about generalizing from specific studies to policymaking contexts, where the number of relevant variables and dynamic effects may be larger and potentially more complex. Several prominent researchers of studies provided by respondents underscored that these caveats should be kept in mind when applying academic research models to specific policy or practice contexts. (See Section VII).

REVIEW OF HOUSE BILL 1150

Overview of Bill

House Bill 1150 would require insurance policies to provide coverage for the diagnosis and treatment of autism spectrum disorder for individuals less than 21 years of age. Coverage provided by private health insurers would be subject to a \$36,000 annual benefit cap, while limitations on the number of visits to autism service providers would not be allowed. After December 30, 2009, the cap is adjusted annually for inflation, using the Medical Care Component of the U.S. Department of Labor's Consumer Price Index for all urban consumers. Covered treatment determined to be medically necessary for autism spectrum disorder by a licensed physician, licensed psychologist or certified registered nurse practitioner would have to include: psychiatric care, psychological care, rehabilitative care (including applied behavioral analysis), therapeutic care, pharmacy care, and any care, treatment, intervention, service or item for individuals with an autism spectrum disorder which is determined to be medically necessary by the Department of Public Welfare, based on its review of best practices or evidence-based research.

Mandated Benefits Review Process

PHC4's enabling legislation, Act 89 of 1986 (as re-authorized by Act 34 of 1993 and Act 14 of 2003), provides that PHC4 review current law or proposed legislation regarding mandated health benefits when requested by the executive or legislative branches of government. Senator Donald White, Chair of the Senate Banking and Insurance Committee, has requested that PHC4 review the provisions of House Bill 1150, PN 2326 (O'Brien).

A notice was published in the *Pennsylvania Bulletin* on August 4, 2007, requesting that interested parties submit documentation and information pertaining to House Bill 1150 to PHC4.

Letters also were sent to potentially interested individuals and organizations informing them of the pending review and inviting them to submit information pursuant to the notice. Following the initial comment period, an opportunity was provided for interested individuals and organizations to examine the responses received and submit additional comments. Final submissions were due to PHC4 on November 19, 2007. The Pennsylvania Department of Health and the Insurance Department were notified of the review and received a copy of the submissions.

A list of the submissions received and a copy of the bill are attached.

Act 14 provides for a preliminary PHC4 review to determine if the documentation submitted is sufficient to proceed with the formal Mandated Benefits Review process outlined in the Act.

This formal process consists of convening a review panel with five members with expertise in specified fields to review the documentation submitted by proponents and opponents.

This report presents the results of PHC4's preliminary review and conclusions regarding whether the material is sufficient to proceed with the formal review process.

Analysis of Documentation Submitted by Opponents and Proponents in Response to the Eight Categories Required by Act 14, Section 9

I. The extent to which the proposed benefit and the services it would provide are needed by, available to and utilized by the population of the Commonwealth.

Affected population. Both proponents and opponents of HB 1150 generally cited the Centers for Disease Control and Prevention's estimate that 1 in 150 children in the United States is affected by autism/autism spectrum disorder (ASD). Several submissions added that the number of the bill itself—HB 1150—is based on this figure.

The Vista Foundation reported that the prevalence of autism has increased dramatically in recent years: "In 1990, the incidence of autism was estimated to be 4 in 10,000. In 2000, the *Journal of the American Medical Association* reported that the incidence of autism had risen to 1 in 166 children. Recently, the Centers for Disease Control and Prevention (CDC), after the most exhaustive review of autism's prevalence to date, announced that autism affects an alarming 1 in 150 children in the United States, and 1 in 94 boys." (p. 2)

The Department of Public Welfare (DPW) reports that in Pennsylvania, the number of individuals diagnosed with an ASD in the past 15 years has risen by over 2000 percent.

The number of individuals under 21 years of age in Pennsylvania potentially affected by ASD is estimated at 22,316, based on the CDC prevalence rate and the estimated population of children in 2006. (See also Section VII regarding the number of individuals potentially covered by the mandates of HB 1150.)

Availability. According to the Pennsylvania Department of Public Welfare (DPW), Medical Assistance (the Medicaid program in Pennsylvania) provides coverage of medical and mental health services to autistic children that include mental health wraparound services (e.g., Behavioral Health Rehabilitation Services), speech and occupational therapy, shift nursing, in-home personal care services, diapers, nutritional supplements, and prescriptions.

Proponents of HB 1150, however, argued that this program and its services fail to serve children with ASD adequately. In its submission (pages 6 to 11), DPW, which administers the program and oversees its services, listed a number of points made by an outside panel, *Pennsylvania Autism Task Force Final Report* (December 2004). Many of these observations were also widely cited in other proponent submissions and in many constituent comments. Some of these points include:

- The MA behavioral health system does not acknowledge nor serve the pervasive nature of autism or pervasive developmental disorder (PDD). The behavioral health system operates as if autism were a short-term medical condition.
- Medical assistance is provided via a mechanism designed to serve children with mental illness or mental retardation. As a result, the medical necessity criteria, mechanisms for providing services, the definition and identification of covered services, service delivery criteria, reporting standards, and rate structures are grossly ill suited to meet the needs of children with ASD.
- Notwithstanding the fact that autism is a life-long incurable biological disorder, the current system requires that a psychologist or a psychiatrist reevaluate the child every

four months [changed recently to twelve months] to determine their continued eligibility for services. Parents find this reevaluation requirement to be medically unnecessary, needlessly intrusive and demeaning.

- There is no cradle-to-grave, seamless delivery system to manage all of the systems that children and families need.
- Physicians encourage pharmacological interventions rather than behavioral interventions because the medical model (for) autism is wedged into the mental health category and mindset.
- There is an insufficient number of qualified providers in the Commonwealth and access to quality services is geographically inconsistent.
- Lack of early identification and diagnosis causes delayed interventions and support to the individual and family members.
- The intervention approach for ASD children in PA is both inappropriate and inconsistent with their needs. The program comprises a mental health paradigm with release dates for services not reflecting the reality or ongoing path of the ASD child.
- With the lack of consistency and coordination between systems, and with the lack of funding, there is a major concern over how available funding is being used. There is a need for a seamless, coordinated system with braided funding. The funding should follow the child instead of each service being funded from its own individual system or silo.
- There is a shortage of trained speech therapists. Since communication deficits are the main focus of autism as a disability, this severe shortage of speech therapists is a major problem. (Taken from the *Pennsylvania Autism Task Force Final Report*)

Noted throughout proponents' submissions was the low reimbursement rates offered to MA providers, along with stringent program requirements, which resulted in provider shortages and waiting lists for services. Steven Kossor, Executive Director of the Institute for Behavior Change in Coatesville, Pennsylvania, and a licensed psychologist who has been supervising the delivery of Behavioral Health Rehabilitation Services to children enrolled in Medicaid/MA since 1989, noted that "Medical Assistance payment rates for these services have remained pathetically low (they were set in 1992 and have never been adjusted for inflation or any other reason) ...". (Letter to PHC4, Sept. 20, 2007) The observation that low reimbursement rates adversely affect the availability of providers was repeatedly made in a large proportion of the submissions. See also Section VIII, A.

Many proponents also addressed the coverage of autism services under private insurance, which is included in Section II below.

Opponents of HB 1150 argued that the MA program is already charged with coverage for children with ASD, making the legislation unnecessary. In its submission, Blue Cross of Northeastern Pennsylvania (BCNEPA) stated: "Unlike many of the mandates considered in recent years by the General Assembly and/or reviewed by the Council, the services proposed in House Bill 1150 are already covered under the Commonwealth's MA program, regardless of family income. House Bill 1150 represents a cost shift from a public program to the private health insurance market ..."

Dennis O'Brien, Speaker of the Pennsylvania House of Representatives, submitted that one of the reasons for seeking to mandate private insurance coverage for ASD is "the very real possibility that the PH-95 program [which funds nearly half of autistic children currently being

served by DPW] may be cut back or even eliminated.” He noted that “the continuation of this coverage at any level is far from guaranteed.” (November 19 submission, p. 2)

Utilization. DPW estimates that 13,800 children with ASD are currently being served by its programs. This includes an estimated 6,400 children with autism in the PH-95 category and 7,400 children with autism in regular Medical Assistance (MA).

II. The extent to which insurance coverage for the proposed benefit already exists, or if no such coverage exists, the extent to which this lack of coverage results in inadequate health care or financial hardship for the population of the Commonwealth.

Existing private insurance coverage. Opponents of HB 1150 argued that the legislation is unnecessary given that Medical Assistance already provides coverage for children with ASD.

Capital Blue Cross (CBC) stated that it pays for medically appropriate services related to individuals with ASD regardless of the age of the insured and without exclusions based on the fact that an individual has ASD. Office visits to physicians or other providers are approved based on the insurance contract, and prescriptions are covered if included in the formulary. Most of its policies offer psychiatric benefits that provide for 30 days of inpatient treatment and 60 days of outpatient treatment per benefit period, and all covered expenses are subject to deductibles and copayments. CBC noted that it does not provide behavioral therapy outside of what is covered under its mental health provisions; habilitation services and respite care are also excluded from coverage regardless of the diagnosis for which it is being requested.

Highmark noted that its health benefit plans cover evidence-based medical services that are scientifically proven to improve ASD. These can include medical assessment and evaluation; EEG or neurological consultations; measurement of blood levels for lead or heavy metal exposure; pharmacotherapies (subject to the member’s specific drug benefit coverage); and psychotherapy, physical medicine, occupational therapy, and speech therapy services, when the patient has a reasonable expectation of achieving sustainable measurable improvement in a reasonable and predictable period of time.

Additionally, Highmark pointed out that its contracts generally provide coverage for diagnostic and therapeutic services for medical conditions that lend themselves to improving with treatment (e.g., speech disorders), regardless of whether the patient also has any type of behavioral or developmental disorder. (Coverage for these services, it noted, is based on the specific group customer’s contract.) It stated that autism services that fall outside the realm of health care are generally not covered, including: services primarily educational in nature; educational testing; behavior modification and training; services for social or environmental change unrelated to medical treatment; and developmental or cognitive therapies that are not restorative in nature or will not improve a level of function.

Inadequate care. Many proponents of the bill stated that they find Medical Assistance inadequate for many of the reasons outlined in Section I, and believe that private insurance should provide more types and higher quantities of coverage for ASD in order to help remedy deficiencies in the program. Additionally, they argued that treatments geared specifically to children with ASD, such as Applied Behavior Analysis (ABA), which is specifically mandated in HB 1150, are not adequately provided by MA or by private insurance.

The following statement by Autism Speaks is representative of arguments put forward by many proponents of HB 1150.

The failings of Medicaid point to the importance of the private health care system in providing services to children with autism. But nationwide there are very few private insurance companies or other employee benefit plans that cover applied behavior analysis and other behavioral therapies. Most insurance companies designate autism as a diagnostic exclusion, “meaning that any services rendered explicitly for the treatment of autism are not covered by the plan, even if those services would be covered if used to treat a different condition.”¹ A 2002 study by [Professor] Pamela B. Peele [of the University of Pittsburgh Graduate School of Public Health] and others [published in *Psychiatric Services*, A Journal of the American Psychiatric Association] of 128 behavioral health plans administered by one of two large managed behavioral health organizations found that all the plans had some type of limit on benefits for behavioral therapies—over half of the plans had limits on the number of annual outpatient sessions and 65 percent of the plans imposed limits on the number of inpatient days covered per year.² (Autism Speaks, p. 8)

There were conflicting statements about the extent to which behavioral therapies such as ABA are provided by MA. The Pennsylvania Health Law Project (PHLP) noted that “most insurance policies do not cover, regardless of diagnosis, most types of services designated by HB 1150 as ‘rehabilitative care,’ in particular, applied behavior analysis”, and that the “coverage that does exist under Medical Assistance is not autism specific ... Autism and Aspergers are developmental disabilities and as such, need different treatment approaches than that used by most Medical Assistance covered mental health services.” (PHLP, p.2)

Proponents argued that mandating private insurance coverage for these types of services would remedy many of the deficiencies of MA. Moreover, they stated that private insurance coverage could offer a number of other advantages. PHLP stated that federal legal provisions make it difficult for MA to cover services that are autism-specific, and that commercial insurers would be free of the federal laws that currently constrain MA from developing autism-specific services and training requirements. Additionally, with private insurance a broader network of providers would be available to families of autistic children.

The Vista Foundation stated: “The presence of appropriate ‘supply’ of a private insurance funding stream with appropriate reimbursement rates will also result in new [provider] participants in the market to meet the demand for intensive behavioral services to children with autism.” (October 3 submission, p. 26-7)

In opposition, Blue Cross of Northeastern Pennsylvania (BCNEPA) argued that the deficiencies commonly cited about the MA program demonstrate “a structural or network deficiency with autism services in Pennsylvania and *not* [emphasis in original] a lack of coverage ... Given that the state’s Autism Taskforce has identified these gaps in autism treatment ... shifting individuals from the MA system into the private health insurance market is likely to exacerbate the existing system flaws ... BCNEPA has no experience in developing or managing a network of developmental disorder providers.”

Financial hardship. Many proponents stated that it is common for the families of autistic children to seek additional treatments beyond what is available through MA, with many parents of autistic children spending thousands of dollars out of pocket for these additional treatments.

The Vista Foundation cited a study by Sharpe and Baker (2007)³, which summarized findings from the “Family Experiences with Autism Survey.” The study concluded: “Diagnosis of autism places a large financial burden on families who often must pay for expensive treatments out-of-pocket.” Parents, according to the study’s authors, experience “intense pressure” to obtain necessary services using “whatever means possible—including placing the family’s financial future at risk—to secure needed therapy ...”⁴ (cited in Vista Foundation submission at p. 6)

Financial hardship for the families of autistic children was mentioned repeatedly in organizations’ submissions as well as a large proportion of the public comments, but no specific evidence (e.g., number of persons experiencing difficulties or expenditures over a period of time) were provided to estimate the overall financial hardship of the families of children with autism/ASD in the Commonwealth.

III. The demand for the proposed benefit from the public and the source and extent of the opposition to mandating the benefit.

Support for House Bill 1150. In support of the mandate, PHC4 received submissions from the following individuals and organizations: ASCEND – The Asperger Syndrome Alliance for Greater Philadelphia, Autism Speaks, David S. Mandell, ScD (University of Pennsylvania School of Medicine) and Craig J. Newschaffer, PhD (Drexel University School of Public Health), The Honorable Dennis M. O’Brien, Speaker of the House, PA House of Representatives, Pennsylvania Association of Resources, Pennsylvania Department of Public Welfare, Pennsylvania Health Law Project, Pennsylvania Psychological Association, Susquehanna Valley Center for Public Policy, Temple University’s Behavior Analysis and Learning Laboratory, University of Pittsburgh School of Medicine’s Autism Research Project, The Vista Foundation, West Chester University’s Speech and Hearing Clinic; 17 letters from members of the Pennsylvania General Assembly; more than 60 constituent letters; and supporting background information from Gary Ames, William M. Bolman, M.D., and The Institute for Behavior Change.

In addition to their overall arguments about the merits of House Bill 1150 (See in particular Sections I, II, V, and VI), a significant portion of proponents stated that many middle- and upper-income families turn to the taxpayer funded Medical Assistance program to obtain autism services because their private insurance coverage excludes these services.

Speaker of the House Dennis M. O’Brien of the Pennsylvania House of Representatives noted in his submission:

“HB 1150 simply requires insurance companies to pay a fair share of the costs related to treating Pennsylvania children who have autism ... HB 1150 not only will result in a cost savings to the Commonwealth’s Medical Assistance Program, it will also result in a long-term cost savings to the health care and education systems of the Commonwealth ... This benefit will extend far beyond the families who have loved ones with autism. It will reach all taxpayers.” (November 19 submission, p. 8)

Opposition to House Bill 1150. PHC4 received submissions from seven organizations (five insurers, the Insurance Federation of Pennsylvania, and the Pennsylvania Chamber of Business and Industry) that oppose mandating coverage for autism/ASD as outlined in HB 1150.

Concerning the overall approach of the mandate, Blue Cross of Northeastern Pennsylvania (BCNEPA) argued that:

“On a more fundamental level, House Bill 1150 represents a significant shift in the types of services covered by health insurance and thus poses the following public policy questions: Should health insurance begin to cover developmental disorders typically covered under public programs and are individuals and employers willing to pay for the corresponding increase in health care premiums?”

It went on to state that:

“BCNEPA, like most if not all commercial insurers, does not cover this type of therapy [ABA] for any behavioral or developmental disorder. Legislatively creating a new coverage category for behavioral and developmental disorders will flood the insurance industry with new responsibilities that will increase health care costs at a time when state governments—and the federal government—are struggling to make health care more accessible and affordable.” (p. 3)

BCNEPA also argued that HB 1150 itself is inequitable.

“There are numerous developmental/cognitive/intellectual disabilities (e.g., Down syndrome, cerebral palsy, mental retardation) that require, in many cases, lifelong support for those living with the disability and present families with significant hardships. The discussion around assisting individuals with autism spectrum disorders should be shifted to a conversation about meeting the needs of all individuals with developmental disorders. Legislation mandating insurance coverage of one particular developmental disorder—one that already has sufficient coverage in Pennsylvania—places other such disabilities on an unequal level, suggesting that those disabilities are secondary to autism spectrum disorders.” (p. 6)

Several key arguments against the bill were repeated throughout opponents’ submissions:

(1) The treatments being required are outside the scope of traditional medical coverage provided for subscribers with other diagnoses or health care conditions.

(2) The benefits required by the bill would be wide-ranging, including psychiatric, psychological, rehabilitative, therapeutic and pharmacy care, plus any “care, treatment, intervention, service or item for individuals with an autism spectrum disorder” determined by DPW to be “medically necessary.” Furthermore, the bill would specify coverage for a specific type of therapy, ABA.

The Insurance Federation of Pennsylvania stated: “House Bill 1150 is totally open ended on the vast types of services to be covered by the mandatory insurance. Basically, the definition of “habilitation care” is so broad as to encompass virtually any aid to an autistic individual ...” (p. 4)

(3) DPW would stipulate who meets the requirements of an “autism service provider” and would establish standards for providers that the health plans must accept, rather

than the Department of State Licensing Boards or the Pennsylvania Department of Health. Moreover, DPW would oversee the credentialing of this new category of providers, not the Department of Health.

Highmark stated that “House Bill 1150 establishes broad new powers for DPW regarding providers treating children with autism ... [under the bill] Private insurers must also pay any provider that is in the Medical Assistance network, even if they are not a network provider of the insured member’s health insurance company. Highmark does not extend this payment arrangement to providers that elect not to participate in our health care provider networks. Why does House Bill 1150 set forth rules just for autism providers? House Bill 1150 is far reaching and sets a precedence that has not been seen before.” (p. 20)

(4) The bill would undermine the cost containment tools typically used by insurers and plans. Opponents stated that the bill would place no limits on the number of visits to an autism service provider and would require open-ended insurer “authorizations” or referrals to be valid for 12 months, unless the member’s primary care provider determines that an earlier re-evaluation is necessary.

BCNEPA stated that the “legislation completely undermines one of our main tools to ensure quality and control costs—our provider network. House Bill 1150 would create an entirely unique and separate system for autism services that bears no resemblance to the way BCNEPA currently provides coverage for all other medical services ...” (p. 6)

While not specifically opposing the mandate contained in HB 1150, the American Family Life Assurance Company of Columbus (AFLAC) suggested that supplemental insurance policies be excluded from the bill. AFLAC argued that its supplemental policies are not intended to be substitutes for comprehensive major medical health insurance.

Additionally, opponents outlined several general arguments about the impact and unintended consequences of mandates.

- *Mandates, in general, increase total health care costs*

Opponents stated that mandates increase premium costs, reduce health coverage for some individuals, and force others to become uninsured, rather than ensure better health care. The opponents describe how employers respond to mandates which increase the total cost of health care:

- Large employers can become self-insured under terms of ERISA to avoid mandates.
- Medium-size and small businesses too small to become self-insured pay increased insurance premiums for mandated services.
- Smaller employers pass on premium costs to their employees through increased contributions toward health care coverage and/or reducing wage or salary costs.
- Some employees may cease to participate in insurance because of the higher contributions and become uninsured.
- Employers who reduce workforce levels to control increased cost may increase the ranks of the unemployed.

- *Mandates must be considered in light of their cumulative impact*

Opponents stated concerns about the cumulative effect of mandates, noting that even though one individual mandate may have minimal cost implications, taken together with other mandates, the impact is substantial. In support of this conclusion, they cited two studies:

1. The Council for Affordable Health Insurance, in its *Health Insurance Mandates in the States 2007*, found that the collective impact of mandates increased the costs of basic coverage from slightly less than 20% to more than 50%, depending on the state.
2. *Mandated Benefits Laws and Employer-Sponsored Health Insurance (Health Insurance Association of America, January 1999)*
 - o As many as one in four people are uninsured because of the cost of state health insurance mandates.

IV. All relevant findings bearing on the social impact of the lack of the proposed benefit.

Both proponents and opponents expressed general concern for the plight of autistic children and their families. Additionally, proponents pointed to the deficiencies of MA programs (see Sections I and II), how these impact autistic children and their families, and argued that private insurance coverage would ameliorate these effects. Opponents argued for strengthening any deficiencies in MA programs serving all children with ASD, rather than creating a dual system where fully insured health plan members receive the additional mandated benefits while the children of self-insured health plan members or parents without any private insurance at all remain in the current system. Some estimated that the self insured plans which would be exempt from the mandate represent roughly half of the private insurance market. See also Section VII.

A substantial number of submissions from the families of children with ASD described their personal experiences. Many of these related how the disorder had affected their families' lives, both emotionally and financially. (See also Section II, Financial Hardship). Most believed that HB 1150 would improve their lives by forcing insurers to assume many of their current out-of-pocket expenses for treatments or additional therapeutic sessions not covered by MA programs. It was not clear from the information provided, however, how many of these respondents would actually be covered by the bill's mandates and how much relief those covered would receive.

V. Where the proposed benefit would mandate coverage of a particular therapy, the results of at least one professionally accepted, controlled trial comparing the medical consequences of the proposed therapy, alternative therapies and no therapy.

Conflicting information was provided in the submissions about the efficacy of Applied Behavior Analysis (ABA), which is specifically mandated by HB 1150.

The Pennsylvania Psychological Association stated that "ABA is a well established psychological intervention ... not an experimental or unusual procedure. Furthermore, the Association for Science in Autism Treatment (n.d.) reports that 'when implemented intensively (more than 20 hours a week) and early in life (beginning prior to the age of 4 years), ABA may produce large gains in development and reductions in the need for special services.'" (p. 2)

The Vista Foundation listed a number of scientific and government organizations that recognize ABA as an important method of intervention for children with ASD. These include the National Institute of Mental Health, National Institute of Child Health and Human Development, National Research Council, American Association on Mental Retardation, Association for Science in Autism Treatment, Surgeon General of the United States, New York State Department of Health and Maine Administrators of Services for Children with Disabilities.

Proponents supplied a number of experimental studies and research articles, many from peer-reviewed journals, supporting the efficacy of ABA as an effective treatment for children with ASD; many of these studies indicated that ABA intervention at an early age could reduce the need for further treatments at later ages and reduce future costs (see Section VII).

Out of the large number and variety of experimental studies about ABA supplied by proponents, these citations from widely cited researchers in this field summarize the literature:

“There exists a myriad of interventions for autism, which range from dietary manipulation to intensive psychodynamic therapy. There are only a few, however, that have empirically demonstrated efficacy. Among those with empirical support, a particular class of treatments for autism incorporates principles of Applied Behavior Analysis (ABA), which emphasizes environmental associations and contingencies ... within the context of treating young children, these techniques are also referred to as Early Intensive Behavioral Interventions (EIBI).” Chasson, Harris and Neely, *Journal of Child and Family Studies* (2007)⁵

“One prototypical EIBI, which has garnered a tremendous amount of support, is Discrete Trial Training (DTT) ... [which] consists of an average of 35 hours per week of one-to-one behavior intervention that occurs in the child’s home. The intervention is implemented by a team of 5 to 7 therapists, who each work for 6 hours per week in two to three hour sessions. Ideally, the child receives 5 to 7 hours of treatment per day, for 5 to 7 days per week. DTT generally lasts from 2 to 6 years with the average child requiring services for 3 years” (Jacobson, Mulick, & Green, 1998)⁶.

“Evidence from these investigations demonstrates that DTT has yielded a range of outcomes for children with autism. Slightly less than half of the participants achieved normal or near normal functioning, allowing them to complete school with little or no assistance” (Lovaas, 1987⁷; Sallows & Graupner, 2005).

“About a third of the children achieved substantial gains [in addition to the slightly less than half of participants achieving normal or near normal functioning], allowing significantly reduced levels of care and assistance ... The remaining 10 to 15 percent of children did not achieve significant gains in functioning and continued to require the expected (non-treated) levels of assistance ... “ (Chasson, p. 402-3) See also Section VII.

Proponents widely cited a study by Lovaas (1987)⁸ that documented improved functioning in a proportion of children who received comprehensive, intensive, long-duration behavior analytic intervention before the age of four. Nine of the 19 children in the study who received early intensive behavioral interventions for at least two years had cognitive and language test scores in the normal range by the age of six to seven years and completed first grade without

special instruction. In contrast, few gains were made by children with autism in two control groups who received either 10 hours of behavior analytic treatment per week or typically available community services over the same time period. A follow-up study found that children who had the “best outcomes” from the Lovaas study continued to function normally into adolescence (McEachin, Smith, & Lovaas, 1993)⁹.

From Howard, Sparkman, Cohen, Green and Stanislaw, *Research in Developmental Disabilities* (2005)¹⁰

Although all published studies of early intensive behavior analytic treatment demonstrated that many children made substantial gains, outcomes varied within and across studies.

There were also methodological differences across studies: some were quasi-experimental while others used true experimental designs, and few assigned participants to groups randomly ... Indeed, although some partial and systematic replications of the Lovaas (1987) study have been published, so far no full replications (40 hours of treatment per week for a minimum of 2 years; multiple outcome measures; at least one control group) have appeared in the literature. Nevertheless, as an aggregate, the published studies offer compelling evidence that many children with autism who received early intensive behavior analytic treatment made substantial gains. (p. 362)

(It should be noted that since the Howard et al. research, it appears that there has been at least one published replication¹¹ of the Lovaas study.)

Several proponents supplied experimental studies comparing ABA treatments for children with ASD to other widely used interventions. One of these studies (Howard et al., 2005)¹², [quoted above] compared behavior analytic treatments with “eclectic” treatments, i.e., typically found in special education services and which tend to be an assortment of interventions consisting of low-intensity behavioral as well as non-ABA intervention approaches. Howard et al. compared children given intensive ABA treatments (25-40 hours per week; supervised play; and parents received ABA training) with two control groups, one given treatments in a special-education classroom for autistic children and the other group given treatments commonly found in general special education settings. The study found no significant differences between the “eclectic” autism special education and the general special education groups. Children in both control groups achieved normal range in motor skills only and close-to-normal average range in non-verbal domains only. The intensive ABA-treated group of children, by contrast, achieved higher mean scores in all domains, normal ranges in cognitive, nonverbal, communication and motor skills, and normal-to-average learning rates in all domains.

The Insurance Federation of Pennsylvania referred to the “questionable effectiveness of ABA,” and stated that even “the most ardent supporters of mandating increased autism treatment coverage admit that ABA is not a proven therapy.” It also cited a representative of the Association for Behavioral Health and Wellness who, in a recent interview on National Public Radio, questioned the effectiveness of ABA and quoted her as saying, “Yes, there are examples of where ABA has been very effective. And there are other examples of situations where it has been very harmful.” (p. 3) No documentation, however, was provided to support these claims.

Blue Cross of Northeastern Pennsylvania (BCNEPA) stated that it would be interested in reviewing the clinical trial information provided by proponents about the efficacy and cost

effectiveness of treatments such as ABA, but noted, without supplying specific information, that “among the advocacy and medical communities, there remains wide disagreement as to what represents an efficacious, evidence-based standard of care for autism.” (p. 6)

VI. *Where the proposed benefit would mandate coverage of an additional class of practitioners, the result of at least one professionally accepted, controlled trial comparing the medical results achieved by the additional class of practitioners and those practitioners already covered by benefits.*

House Bill 1150 specifically mandates coverage of Applied Behavior Analysis (ABA). See Section V above.

A concern cited by several opponents was that coverage of a broad range of practitioners would be mandated by HB 1150, especially given the diversity of treatment plans for children with ASD. Highmark stated that “DPW would determine which providers meet the requirements of an ‘autism service provider,’ regardless of whether they are licensed or not or if they are eligible providers under Highmark’s Enabling Law. (p. 20) See also Section III above.

The Insurance Federation of Pennsylvania stated: “House Bill 1150 is totally open ended on the vast types of services to be covered ... Basically, the definition of ‘habilitation care’ is so broad as to encompass virtually any aid to an autistic individual, including round the clock social services, [and] behavioral interventions of undetermined extent.” (p. 4)

VII. *The results of any other relevant research.*

Percentage of individuals under 21 covered by HB 1150. The Department of Public Welfare (DPW) provided data on the number of children on the autism spectrum currently being served by Medical Assistance (MA) programs. It estimated that there are 6,400 children in the PH-95 category and 7,400 children in regular MA programs, for a total of 13,800 children. Additionally, DPW estimated that 80 percent (5,100) of the PH-95 children and 25 percent (1,900) of the regular MA children with autism have private insurance, for a total of 7,000 children who could be potentially covered by HB 1150.

DPW did not provide an estimate of the percentage of the 7,000 children with private insurance who would be covered by the bill since not all insurance plans would be subject to the mandate: only children covered by fully insured plans not subject to ERISA preemption of state regulation would be covered by the mandate. A widely cited estimate of the percentage of people in fully insured plans in the Commonwealth is 50 percent; which both proponents and opponents have referenced in their arguments and calculations. After this adjustment, 3,500 children would be estimated to be affected by HB 1150 (approximately 25 percent of children with ASD currently receiving MA services).

For comparison, estimates were made by PHC4 staff using U.S. Census data (Current Population Survey, 2007 Annual Social and Economic Supplement) on the percentage of privately insured individuals under 21 in Pennsylvania. Assuming 50 percent of privately insured individuals are in fully insured plans and the CDC prevalence rate of ASD of 1 in 150 children results in an estimate of 7,956 children in the Commonwealth who would be covered by HB 1150. Several respondents recommended a 1 in 400 rate as the proper “treated

prevalence” rate that should be used in cost estimation, resulting in 2,969 children covered under the mandated benefits. (These figures exclude individuals in self-insured commercial health insurance plans that would not be subject to HB 1150.)

A number of respondents noted that several factors have increased the estimated prevalence rates of children with autism in recent years (see Section I), including greater public awareness, better diagnosis and identification of autism, and an expanding definition of autism spectrum disorders (ASD). Highmark stated: “We note that with the expanded definition of ASD, the rate of prevalence has significantly increased. The definition for ASD includes other disorders, such as Asperger Syndrome and other pervasive developmental disorders.” (p. 3)

Cost-benefit studies. A number of cost and cost-benefit studies examining the potential net financial benefits of funding early intervention programs for children with ASD were supplied, especially by proponents. These analyses generally examined the net financial benefit of injecting additional funding or reallocating funding from a currently less beneficial program on the future costs to current funding sources such as government tax revenues.

David Mandell, assistant professor of psychiatry and pediatrics at the University of Pennsylvania School of Medicine and Craig Newschaffer, professor and chair of the Department of Epidemiology and Biostatistics at Drexel University School of Public Health, reviewed major peer-reviewed studies of cost and cost-benefit literature in a joint letter supporting HB 1150.

They concluded that:

- (1) Intensive healthcare delivery to very young children can result in future lifetime savings of between \$37,000 and \$1 million, depending on the assumptions made.
- (2) Evidence from empirical studies of health care expenditures for children with autism suggest that the need for autism-specific health services continues throughout childhood and young adulthood, but that the treated prevalence [rate] is nowhere near population-based estimates of the disorder, nor are expenditures anywhere near the proposed cap of HB 1150.
- (3) Individuals with autism continue to need and use autism-related healthcare throughout the[ir] lifespan. These services can substantially burden families, and point to the need for continued health insurance coverage.
- (4) Private insurers may be more efficient in managing the healthcare of individuals with autism than Medicaid, given the substantial differences in expenditures observed in the available studies, and the disproportionate use of those dollars for inpatient care among Medicaid-enrolled children.
- (5) Provision of appropriate community based services may reduce the need for more costly and restrictive levels of care, such as hospitalization.

However, they also noted that “There are no definitive empirical studies of the cost-benefit of intervention for individuals with autism at any age. Conducting this type of study ... would be prohibitively expensive and time consuming.” (p. 6)

It is important to note some of the following assumptions underlying these conclusions as well as any possible limitations in applying these conclusions from the cost/cost-benefit literature to the specific policymaking context of HB 1150.

- The future lifetime net savings or net financial benefit estimates provided in the literature reviewed by Mandell and Newschaffer are calculated based on expenditures by government programs, families with ASD expenses, and/or society. These analyses, however, do not fully take into account non-governmental costs or benefits of increasing ASD services provided in the private insurance market. Estimating full net social and economic costs and benefits would quantify the effects these costs would have on health insurance premiums; on total health care consumed by both children with ASD and others in society; the impact of increased insurance premiums on the number of uninsured; and the opportunity costs of potentially reduced private sector consumption of goods and services.
- Regarding (2), based on 13,800 individuals currently being served by MA programs the rate of ASD children in Pennsylvania currently being served by MA/DPW programs is approximately 1 in 250. This is less than the CDC population-based estimate of 1 in 150 but higher than the 1 in 400 or 1 in 500 “treated prevalence” rates that Mandell and Newschaffer suggest for making cost estimates.
- With respect to (4), opponents’ concerns about the open-ended nature of the mandates contained in HB 1150 and on plans’ ability to use cost- and medical management tools effectively may contradict Mandell and Newschaffer’s underlying assumption that “the managed care mechanisms used by private insurers might go a long way towards reducing costs of care.” (p. 6) See also Section III.
- Generalizing from the results of specific studies to policymaking is difficult, as the number of relevant variables and dynamic effects may be larger and potentially more complex. Some prominent researchers in the cost literature, while recommending greater prevention funding for autism, underscore that these caveats should be kept in mind when trying to apply specific research findings to cost estimation or other goals related to policy or practice.¹³

VIII. Evidence of the financial impact of the proposed legislation.

A. The extent to which the proposed benefit would increase or decrease cost for treatment or service.

Current costs. DPW provided estimates of recent costs for service categories covered by HB 1150 based on its interpretation of the mandated coverage requirements. Using MA expenditure patterns on a sample of autistic children from 2004 to 2006 (Fee for Service PH-95 individuals under 21), DPW calculated the average annual (direct-service) cost per child from 2004 to 2006. These data are summarized in the following tables.

Note: These per-capita mean expenditure figures from DPW are direct-service costs and do not include administrative expenses.

Table I
Summary of Fee for Service (FFS) Claims for Autistic PH-95 Children in Medical Assistance Programs
(for five covered service categories associated with HB 1150)

	Number of Children	Service Category	Total Amount Paid \$	Mean Expenditure per Child	Median Expenditure
2004	1,957	Pharmacy	1,879,255.08		
		Physical Health	153,650.44		
		Psychologists	2,979,758.81		
		Psychiatrists	69.00		
		BHRS*	20,402,779.45		
		Total		\$25,415,512.78	\$12,986.98
2005	1,976	Pharmacy	2,013,496.22		
		Physical Health	18,868.92		
		Psychologists	3,129,576.65		
		Psychiatrists	27,792.74		
		BHRS	21,278,052.85		
		Total		\$26,467,787.38	\$13,394.63
2006	1,953	Pharmacy	1,525,238.90		
		Physical Health	17,818.77		
		Psychologists	3,341,072.55		
		Psychiatrists	74,336.43		
		BHRS	19,866,154.15		
		Total		\$24,824,620.80	\$12,711.02

Adapted from DPW Data and Charts

*BHRS = Behavioral Health Rehabilitation Services

Table 2

Specialties of Providers for Physical Health Services		Number of Providers	Percent
Code			
16	Registered Nurse	12	4.8
17	Therapist	148	61.1
21	Case Manager	77	28.2
28	Laboratory	15	6.0
	Total	252	100
Subcategories for Code 17			
170	Physical Therapist	17	6.7
171	Occupational Therapist	71	28.2
173	Speech/Hearing Therapist	64	25.4
174	Art Therapist	2	.8

Table 3

FFS Autistic PH-95 Children: Distribution of Total Expenditures for Five Service Categories				
		Number of Children	Percent of Group	Under \$36K Mean Expenditure
2004	Under \$36K	1,732	88.5	\$8,551.76
	\$36K and above	225	11.5	
	Total	1,957	100	
2005	Under \$36K	1,738	88	\$8,995.74
	\$36K and above	238	12	
	Total	1,976	100	
2006	Under \$36K	1,776	90.9	\$9,413.91
	\$36K and above	177	9.1	
	Total	1,953	100	

These estimates are based on a number of assumptions:

- The cost data is based on a sample of PH-95 children with at least one ASD diagnosis code in the Fee for Service (FFS) delivery system (e.g., 1,953 in 2006). DPW estimates that there are a total of 13,800 children currently being served by MA programs.
- DPW supplied PHC4 with FFS data, stating that there were no managed care data available for recent years. It also assumed that costs for children in the non-PH-95 category are similar to the PH-95 data and that managed care costs are similar to FFS costs.

Some opponents have suggested that current expenditure distribution patterns taken from DPW data can be misleading, because a different set of rules for ASD services (e.g., introducing a benefit cap of \$36,000; changes in the prices of provider services; changes in rules governing preauthorization, provider referral and provider eligibility for reimbursement) could change costs of services compared to the current program. (See also Section VIII)

Opponents suggested that these changes in program rules and the incentive structures could substantially alter the behavior of the economic “actors” involved and suggested several factors that could potentially alter future cost outcomes from current MA program-based data.

Including current out-of-pocket expenses. Throughout proponents’ submissions were references to the out-of-pocket expenses that families of children with ASD incur because either the types or quantities (e.g., number of therapeutic sessions) of certain services they desire for their children are not covered by Medical Assistance. It appears that this cost is considerable and causes significant financial hardship for many families of autistic children. (See also Section II.) The average annual cost-per-child estimates provided by DPW do not include these out-of-pocket expenses. Moreover, some of these out-of-pocket expenses (e.g., for Applied Behavior Analysis) that families currently bear would likely be covered by private insurers under the mandated requirements of HB 1150.

Changes in the prices of provider services. Both proponents and opponents speculated about the economic effects of introducing private insurers into the market for autism-related services. Many proponents expressed the belief that the entry of private insurers would expand the supply of autism services by increasing the prices (reimbursement rates) to providers, which could relieve the workload on currently overburdened MA providers, who could reduce their waiting lists/times for services.

The Vista Foundation stated that there are “numerous highly respected organizations that offer high-quality support of behavioral intervention programs ... Currently, these organizations provide consultation and direct care support on a private-pay basis to families in Pennsylvania. The presence of appropriate ‘supply’ of a private insurance funding stream with appropriate reimbursement rates will also result in new participants in the market to meet the demand for intensive behavioral services to children with autism.” (p. 26-7)

However, it should be noted that other outcomes are also possible. If private insurers offer providers payments at roughly the same levels as MA, which proponents widely argue are too low, additional service providers would have no incentive to enter the market.

A report, *Medicaid Facts: Pennsylvania*, by the American Academy of Pediatrics (January 2007)¹⁴ supplied by proponents stated: “Unfortunately, low Medicaid payment rates place an unfair burden on children’s providers ... Medicaid payment for pediatricians’ services is very poor. As a national average, Medicaid pays only 70% of the Medicare value for pediatric services ... Pennsylvania Medicaid pays less than 33% of the Medicare value for over one-third of the most common pediatric services.” (Report, p. 2)

On the other hand, should provider rates paid by private insurers increase relative to current MA provider reimbursement, then it is possible that many current MA providers would give priority to privately insured children with ASD because it would be more profitable. Thus children who remain in the MA program could face a constricted supply of provider services. Unlike the typical market scenario where the quantity of providers supplying services would increase in response to higher prices, essentially two markets would emerge: a lower priced one for providers to MA children, and one at a higher price level for providers to privately insured children with ASD. Even in the case where the two payment rates were equal, providers of services might choose to prefer treating privately insured children because of the non-monetary costs of complying with MA program requirements, which are widely acknowledged by proponents to be stringent.

For cost-estimation purposes, since the cost estimates provided by DPW are based on the current prices of MA provider services, any increase in the prices of provider services would increase insurers' cost (and premium/rate) estimates above the figures given by DPW.

Changes in the quantity of services consumed. See also Part E of this section. Proponents and opponents speculated about how HB 1150 could affect the utilization of services compared to current levels under the MA program.

Under current MA programs, the medical professionals creating treatment plans for children with ASD would appear to be able to prescribe a variety of services and a number of therapeutic sessions depending on the presentation of symptoms and the severity of the disorder in each child. However, widely repeated anecdotal reports from parents and statements from many proponents assessed both the types and quantities of services currently available from MA programs to be inadequate both in therapeutic approach and in the quantity of services authorized. See also Section I. They noted that this is why many parents pay out of pocket for additional sessions and types of treatments for their children, causing financial hardship to these families.

Data based on the sample of PH-95 children in five service categories, which represent fewer than 2,000 in the FFS delivery system (see above), showed that from 2004 to 2006, about 90 percent of annual expenditures per child were below \$36,000. DPW stated that it had no data available on the distribution of severity among individuals with ASD and how costs vary according to severity.

Opponents, however, raised concerns about the applicability of DPW expenditure data to estimating costs for HB 1150. Differences in mandated coverage requirements, provider reimbursement rates and conditions of service, could change costs of ASD services for private insurers compared with the current MA program. Opponents also raised the possibility that the \$36,000 per year benefit cap would be treated by providers as a "budget" potentially available for services.

Highmark stated: "In addressing the cap in House Bill 1150, Highmark questions how it was determined. During discussions surrounding the bill, the Department of Public Welfare (DPW) indicated that its average cost for autism is \$14,000 a year. If this is the case, why is the benefit cap for private insurers so much higher at \$36,000?" (p. 5)

The Insurance Federation of Pennsylvania stated: "[I]t can be assumed that virtually everyone entitled to these benefits would use them to the maximum ... it would be a rare parent or guardian who believes that some additional behavioral care, training analysis or instruction might not have some incremental benefit." (p. 6)

Cost information related to behavioral therapies (e.g., ABA) mandated in HB 1150, was provided in the cost and cost-benefit literature supplied by both proponents and opponents. (See also Sections V and VI), A study published in 1998¹⁵ estimated the initial annual cost of early intensive behavioral intervention (EIBI) at \$32,820. A 2007 study noted that "one prototypical EIBI," Discrete Trial Training (DTT), is "relatively costly, averaging \$40,000 per year with a range from \$20,000 to \$60,000 per child per year ... There is a parent-directed model of DTT, which utilizes the parents as resources, that costs an average of \$22,500 per child per year ..."¹⁶

BCNEPA expressed concern about the difficulty of predicting costs: "...[E]stimates of cost for care are difficult to develop because House Bill 1150 would require an insurer to reimburse for 'Any care, treatment, intervention, service or item for individuals with an autism spectrum disorder which is determined by the Department of Public Welfare, based on its review of best practices or evidence-based research, to be medically necessary ... The legislation essentially provides an open-ended mandate for Pennsylvania insurers to cover any type of treatment deemed necessary by the Department of Public Welfare.'" (p. 8)

Additionally, the Insurance Federation of Pennsylvania stated: "The difficulty is that no insurer has experience with the unlimited exposure contemplated in this bill—as with the 'standing referral' requisite and the unfettered use of ABA techniques ...or the opening up of drug coverage beyond prescription drugs." (p. 9)

B. The extent to which similar mandated benefits in other states affected charges, costs and payments for services.

Both proponents and opponents addressed the impact of autism mandates in other states. Documentation supplied provided conflicting information about the exact number of states that currently mandate coverage for autism, given the publication dates of various documents and the fact that a few states have passed or have legislation pending regarding autism mandates in 2007. Additionally, some of the sources differed in how they defined "mandate" (e.g., mandated coverage requirements vs. parity, i.e. "if coverage is offered, then the condition shall be treated like other coverage").

Eight states appear to have laws specifically addressing insurance coverage for autism: Georgia, Indiana, Kentucky, Maryland, New York, South Carolina, Tennessee, and Texas.¹⁷ A number of other states appear to require coverage for autism through their laws mandating coverage for mental illness: California, Colorado, Connecticut, Delaware, Illinois, Iowa, Kansas, Louisiana, Maine, Montana, New Hampshire, New Jersey and Virginia.

Several proponents also cited a report from the Council for Affordable Health Insurance (CAHI) in 2007, which found ten states that had some type of autism mandate (CO, DE, GA, IA, IN, KY, MD, NJ, NY and TN) and estimated that the mandate had raised insurance costs by less than one percent.

Additionally, proponents cited a number of reports and analyses from several states showing the cost impact of mandated benefits overall as well as the cost impact of mental illness and autism mandates or research that was conducted by a few of these states as they were considering the legislation. A summary of these reports¹⁸ includes:

Overall

- A Government Accountability Office (GAO) report from 2003 (*Federal and State Requirements Affecting Coverage Offered by Small Businesses*) that concluded it would be unusual for one mandate to significantly raise insurance premiums (p. 38-40).

Maryland

- A Maryland Health Care Commission report done in 2004 found that the total incremental cost (“marginal cost”) for all 40 of its health mandates was 1.5 percent of premium across all insurance contracts, and 12.6 percent of premium on a full-cost basis. (The marginal cost equals the full cost of health services minus the value of the services that would be covered in the absence of the mandate.) The full cost of mandated coverage for “habilitative services,” including occupational, physical and speech therapies, for all children under 19 with a congenital or genetic birth defect (autism and cerebral palsy included), was estimated to be \$4 annually per group policy.

California

- An article from *Health Watch* (January 2007)¹⁹ that reported on the findings of the California Health Benefits Review Program (CHBRP), which analyzes proposed legislative mandates and makes cost estimates. The article cited CHBRP’s estimate that an autism mandate would increase insurance premiums by only .0023 percent.

Texas

- A report produced under the auspices of the state of Texas, the *Texas Mandated Benefit Cost and Utilization Summary Report*, found that serious mental illness claims (which included some types of coverages for autism) claims costs averaged .56 percent of total claims costs from 1999 to 2005. (*Report*, p. 17)

South Carolina

- Governor Mark Sanford’s veto message on June 6, 2007, of an autism bill (which subsequently passed and became law) stated that the bill was estimated to add \$48 annually to insurance policies.

Wisconsin

- Wisconsin’s Department of Administration Division of Executive Budget and Finance estimated that a bill requiring insurance coverage of autism would result in an additional cost between \$3.45 to \$4.10 per employee per month.

It should be noted that most of the state analyses submitted to PHC4 appear to be prospective estimates rather than based on industry claims data, with the exceptions of the Texas and Maryland analyses. In the Texas analysis of mental health claims data, it is not clear what proportion of the claims was autism-related. In 2007, Texas passed a law (affecting policies beginning on January 1, 2008) requiring health plans to provide coverage for autism-related treatments, including ABA, behavior training and behavior management for autistic children from two to six years of age.

It is not clear from the documentation provided whether the Maryland findings were based on specific insurers’ claims data. It should be noted that the Maryland mandated coverage requirements appear to differ from those of HB 1150, as Maryland insurers may provide

coverage through their managed care systems, and ABA therapies do not appear to be covered, for example.

Many opponents argued that making comparisons to the cost estimates from other states is unreliable, because the scope and coverage requirements of HB 1150 are broader and more open-ended in comparison to what any other state has enacted.

BCNEPA stated that it is “unaware of cost analyses that examine the impact of these laws on the cost and payment for services on the impact of health insurance premiums. However, we call attention to the fact that the laws passed in other states differ significantly from what is being proposed in Pennsylvania. In fact, Pennsylvania’s proposed mandate is far more extensive than laws in other states.”

BCNEPA also distinguished between “mandate” and “parity” requirements, It noted that Colorado requires “parity” for autism, meaning that “if a health insurance plan provides coverage for autism spectrum disorder, [then] the coverage provided must be the same in scope as for all other medical or surgical procedures covered by the same policy; however, the Colorado law does NOT mandate health insurers to provide coverage for autism spectrum disorders.”

It also stated: “Using the cost estimates from South Carolina to project potential cost implications in Pennsylvania paints a false picture of the true cost impact of House Bill 1150. South Carolina’s autism mandate differs *significantly* from that proposed in House Bill 1150 ... Among the numerous technical differences ... is that in order for mandated coverage to apply under South Carolina’s law, the individual must be diagnosed with autism spectrum disorder by the age of 8 years old and coverage only lasts until the age of 16. In addition, South Carolina’s law allows health insurers to use existing health insurance practices such as ‘coordination of benefits, participating provider requirements, restrictions on services provided by family or household members, utilization review of health care services including review of medical necessity, case management, and other managed care provisions’—all of which are eliminated in House Bill 1150.” (p. 8-9)

In addition, BCNEPA stated that Pennsylvania residents “currently have access, regardless of income, to numerous, high quality services for the treatment of autism spectrum disorders through the Commonwealth’s MA program, “unlike the residents of South Carolina,” who “went without these services prior to enactment of the law.” (p.9)

C. The extent to which the proposed benefit would increase the appropriate use of treatment or service.

Many proponents attested that current MA programs do not provide adequate access to applied behavioral analysis and other behavioral interventions for autism/ASD, and that they would utilize these types of treatments extensively if HB 1150 were put into place. Findings from the research literature generally suggest that more intensive treatment with applied behavior analysis tends to yield the best outcomes for autistic children (Cohen, Amerine-Dickens and Smith, 2006)²⁰.

This appears to be substantiated by clinical practice guidelines supplied by proponents and developed by an independent panel of medical professionals sponsored by the New York Department of Health Early Intervention Program. Some of the recommendations in the guidelines include:

- Principles of applied behavior analysis (ABA) and behavior intervention strategies should be included as an important element of any intervention program for young children with autism.
- Intensive behavioral programs should include as a *minimum* [emphasis in original] approximately 20 hours per week of individualized behavioral intervention using applied behavioral analysis techniques (not including time spent by parents).
- In deciding upon the frequency and intensity of a behavioral intervention, it is important to recognize that:

In the studies reviewed, effective interventions based on ABA techniques used between 18 and 40 hours per week of intensive behavioral intervention by a therapist trained in this method.²¹

It is not clear what proportion of MA program participants are currently receiving 20 hours a week (or approximately 1,000 hours a year) of behavioral therapies, given the median (\$7,539.16 annually or \$151/week) and mean (\$12,711.02 annually or \$254/week) expenditures for the available sample of 1,953 autistic individuals from 2006 utilization data provided by DPW.

Some opponents argued that benefit utilization is likely to increase substantially if HB 1150 is put into place: first, because parents may believe that more treatments would bring better outcomes and urge medical professionals to prescribe more treatments; second, medical professionals may feel less restraint in prescribing treatments with a benefit cap of \$36,000 annually than previously—when parents were paying for treatments out of pocket or because of MA program limits.

Another possible outcome would be a shift in the consumption pattern of service-types. Autistic children, families, and prescribing professionals may change the mix of health services they currently use, moving away from generic mental health services into more autism-specific services such as ABA or consuming more occupational and speech services. See also Section VIII-A.

Highmark stated: “Historically, Highmark has found that whenever a service becomes eligible for insurance coverage, utilization of that service or benefit immediately increases. We have no doubt that the same scenario would materialize with the enactment of House Bill 1150. Whether the treatment will be ‘appropriate’ is a major question, considering that many of the treatments are educational in nature, not medical.” (p. 22)

BCNEPA stated: “It is also worth noting that the \$36,000 annual cap—adjusted yearly for inflation—may be misleading. If an individual exhausts his or her annual benefit prematurely, it is unlikely that state regulators would permit BCNEPA, or any PA based insurer, to simply cease reimbursing for benefits, arguing that such disruption in care could be harmful to the individual. The other alternative could see the individual shifting into the Medicaid program if an annual benefit is exhausted, which would represent another disruption in service ...” (p. 10)

D. The impact of the benefit on administrative expenses of health care insurers.

Highmark actuaries estimated that nearly \$9 million would be required annually to administer claims and related administrative costs resulting from HB 1150.

BCNEPA estimated that its administrative costs would increase by about \$500,000.

No other information was provided that would allow PHC4 to evaluate these estimates.

E. The impact of the proposed benefits on benefits costs of purchasers.

Several respondents provided estimates of the increase in insurance costs and premiums for purchasers of private insurance based on the mandated coverage requirements of HB 1150.

Highmark estimated that HB 1150 would have a first-year cost impact on its affected members of \$81.5 million, a figure it estimated would rise annually as the benefit cap of \$36,000 rose in addition to any other cost factors.

Independence Blue Cross (IBC) estimated that the cost of the mandate to its customers would be \$57 million. IBC stated that its estimate was based on an assumed incidence rate of 1 in 400 children. It also stated: "The estimate does not account for the new obligation of accepting unlicensed Department of Public Welfare Medical Assistance providers into our network or the restrictions on medical management of the services provided to children with Autism Spectrum Disorders."

BCNEPA estimated a first-year cost of \$11.5 million (excluding administrative expenses) based on its book of business of 600,000 subscribers; its estimate was based on the CDC incidence rate of 1 in 150 and an annual maximum benefit of \$36,000.

The Pennsylvania Chamber of Business and Industry estimated the additional premium increase associated with HB 1150 to be 4 percent.

The Insurance Federation of Pennsylvania stated: "Insurance actuaries agree that the cost impact will be in the 2-6 % range." (p. 9)

There was no further information provided specifying exactly how these estimates were derived.

Vista Foundation Analysis. The Vista Foundation provided a range of insurance cost/premium estimates under a number of assumptions by considering the number of insured individuals under 21 in the population of the Commonwealth, adjusting it to include only insureds covered under the mandates of HB 1150, considering three possible expenditure levels, and then dividing that cost (plus an administrative cost) over the fully insured health insurance premium base to forecast the (insurance) rate impact of HB 1150.

Vista's cost estimation used three levels of the percentage of individuals without insurance coverage (5.1, 8.3 and 10); three annual cost/expenditure levels (\$11,500; \$22,500; and \$36,000); two "prevalence" rate levels (.67%, the CDC rate of 1 in 150 children; and .20%, 1 in 500 children); and an administrative cost load of 10 percent of costs/expenditures.

Additionally, Vista estimated a population base of 3,419,801 individuals under 21 (2000 Census data); the commercial health insurance premium base, calculated on a “rolling average” basis from 2005 data, to be \$28,397,968,412; and 42 percent (based on a 2002 report) of commercially insured Pennsylvanians under 21 are covered by fully insured plans not subject to ERISA preemption. This produces a “non-ERISA” premium base of \$11,927,146,733.

The Vista Foundation obtained a broad range of estimates (Table 4) for the cost impact, from \$32 million to \$359 million, depending on the annual cost expenditure per child and the assumed prevalence rate. Additionally, estimated impacts on rates based on the varying cost estimates ranged from .27 percent to 3.02 percent.

The Vista Foundation argued that in calculating cost and rate impacts, a “prevalence” rate significantly lower (e.g., 1 in 400 or 1 in 500) than the CDC rate (1 in 150) should be used, and that the mean per capita expenditure level should not exceed \$22,500, one of several figures cited by one researcher²² but not derived specifically for the context of HB 1150. Based on these specifications, Vista argued that the rate impact should be less than one percent. (Submission from Nov. 16)

Table 4
The Vista Foundation's Forecasted Rate Impact of House Bill 1150

	# Persons w/Autism in Non-ERISA plans	
	Total Prevalence estimate 0.67%*	Treated Prevalence estimate .20%**
DPW FFS Mean Service Expenditure	\$11,500	
10% of children uninsured	8,618	2,585
8.3% of children uninsured	8,781	2,634
5.1% of children uninsured	9,087	2,726
Chasson et al. (2007) Expenditure	\$22,500	
10% of children uninsured	8,618	2,585
8.3% of children uninsured	8,781	2,634
5.1% of children uninsured	9,087	2,726
Full Capped Expenditure	\$36,000	
10% of children uninsured	8,618	2,585
8.3% of children uninsured	8,781	2,634
5.1% of children uninsured	9,087	2,726

Assumptions:

Total PA commercial (health) insurance premiums collected	\$28,397,968,412
% non-ERISA Regulated Plans	42%
Total Premium Base (Non-ERISA)	\$11,927,146,733
3,419,801 individuals under 21 in PA	

**.67% is the CDC 1-in-150 rate*

*** .20% is a 1-in-400 rate recommended by some researchers*

Table 4: The Vista Foundation's Forecasted Rate Impact of House Bill 1150 (Continued)

		Estimated Service Costs		Percent of Premium Base	
		\$ Cost + 10% Admin		\$ Cost + 10% Admin	
		Total Prevalence 0.67%	Treated Prevalence .20%	Total Prevalence 0.67%	Treated Prevalence .20%
DPW FFS Mean Service Expenditure	\$11,500				
10% of children uninsured		\$109,016,423	\$32,704,927	0.91	0.27
8.3% of children uninsured		\$111,075,622	\$33,322,687	0.93	0.28
5.1% of children uninsured		\$114,951,761	\$34,485,528	0.96	0.29
Chasson et al. (2007) Expenditure	\$22,500				
10% of children uninsured		\$213,293,001	\$63,987,900	1.79	0.54
8.3% of children uninsured		\$217,321,869	\$65,196,561	1.82	0.55
5.1% of children uninsured		\$224,905,620	\$67,471,686	1.89	0.57
Full Capped Expenditure	\$36,000				
10% of children uninsured		\$341,268,801	\$102,380,640	2.86	0.86
8.3% of children uninsured		\$347,714,990	\$104,314,497	2.92	0.87
5.1% of children uninsured		\$359,848,992	\$107,954,697	3.02	0.91

Adapted from Vista Foundation's Exhibit "A" in its Nov. 16 submission to PHC4

A number of concerns about these estimates should be noted. It is not clear whether the premium base estimate accurately reflects the current commercial insurance premium base or that the estimates for the percent of uninsured individuals have been adjusted to accurately reflect the proportion of privately insured individuals. More specifically, calculating an average rate increase across the premium base may not be appropriate since the premium base may contain commercial insurers that can medically underwrite on the basis of individual risk factors, in comparison to plans that use community rating (non-risk adjusted). Rates for medically underwritten policies would likely be higher than the average-rate analysis might suggest. This analysis did not provide any adjustments that would take account of the proportion of the premium base attributable to medical underwriting.

The Vista Foundation also estimated rate impacts for Highmark, IBC and BCNEPA (which provided cost estimates for the mandates in HB 1150 but did not provide rate (premium) impact figures). It concluded that its estimated rate impacts for the three insurers, based on the information the insurers supplied in their submissions to PHC4, would in each case be less than one percent. These rate estimates were based on cost figures submitted, but actuarial standards (e.g., legal and solvency constraints that may require insurers to ensure that their rates adequately cover future claims costs) might require a higher cost basis to compensate for future risk than suggested by these estimates. Moreover, as noted above, cost is averaged across all policies without any adjustment for the share of policies whose rates are based on medical underwriting.

Economic impact analysis by Fuhr and Stefanacci. The Office of the Speaker of the Pennsylvania House of Representatives provided an economic analysis of HB 1150 done by Richard G. Stefanacci, executive director of the Health Policy Institute of the University of the Sciences in Philadelphia, and Joseph P. Fuhr, Jr., a professor of economics at Widener University. Their analysis calculated the “impact of HB 1150 on health insurance premiums” of two potential expenditure amounts (\$11,371, representing average spending per child by DPW when all current individuals’ costs are capped at \$36,000, and at \$36,000, HB 1150’s benefit maximum), multiplied by DPW’s estimate of the number of privately insured children currently in its programs (7,000). Total costs ranged from \$80 million (assuming \$11,371 is the average per capita cost) to \$252 million (assuming all autistic children with private insurance reach the maximum reimbursement level). The total cost estimates were then divided by the 2005 commercial insurance premium base of \$26.85 billion to obtain premium impact estimates. The analysis found a maximum premium/rate increase of .94 percent when all privately insured individuals utilize the maximum benefit of \$36,000 annually.

This analysis did not adjust the premium base to exclude self-insured plans. The authors themselves noted they estimated rate changes based on averaging (i.e., assuming community rating) across the premium base rather than adjusting for the proportion of the base that bases rates on medical underwriting. They acknowledged: “The average costs of health insurance premiums in Pennsylvania used for this analysis may not reflect those of the population impacted by the mandate. [Also,] The increases represent averages and thus the actual increase may vary.” Additionally, they pointed out: “[The] Cost of care was based primarily on the use of Medicaid claims data. As a result, if health plans payments to providers are greater than Medicaid rates the effect would be greater than estimated.” See A. of this section above.

They also noted the possibility of increased utilization within the population, calling it a “woodwork effect, the idea that an increase in available coverage for autism coverage will bring new patients ‘out of the woodwork’; this effect would capture patients who were eligible for care but failed to receive it because of limitations in coverage and could have an impact on actual prevalence data.”

Opponents commented on the potential impact of HB 1150 and on mandates generally for purchasers of insurance in the small group market. The Pennsylvania Chamber of Business and Industry stated that the Commonwealth has more than 35 mandated benefits in place, and that the cumulative impact of these mandates encourages large employers to “become self-insured in order to control health care costs and to avoid state-mandated benefits. Small employers, who generally do not have the ability to self-insure, face the difficult decision of cost sharing with employees or eliminating health insurance coverage altogether.” (p. 2) IBC stated: “By shifting the funding to private health insurance coverage, the state would be

placing the burden on small employers who are least able to shoulder the cost.” (p. 3)
Highmark stated: “Mandated benefits do not affect everyone. They are typically not applicable to public programs or self-insured groups. They only affect the insured population purchasing individual and small group health insurance.” (p. 10)

F. The impact of the proposed benefits on the total cost of health care within the Commonwealth.

Documentation submitted to PHC4 addressed the overall costs and financial benefits that might be associated with this bill. Respondents submitted a substantial number and variety of scientific studies and cost figures estimating (1) the number of individuals who might utilize these benefits, (2) the utilization of benefits under the specific provisions of the bill, and (3) the impact that increased insurance coverage would have on health care costs.

In determining these costs, respondents submitted conflicting information in a number of key areas:

- Respondents differed widely in their assessments about the proportion of the Commonwealth’s population who would utilize services under the bill.
- Respondents differed substantially on the applicability of current expenditure patterns taken from DPW autism services data to predicting future costs under the bill. Some respondents argued that the bill’s provisions could lead to increased utilization of services, changes in the costs of provider services and the quantity of services consumed compared to expenditure estimates based on the current program.
- Respondents submitted a number of studies and comparisons regarding other states’ experiences with mandated insurance coverage for autism. However, information provided about the similarity of other states’ laws to House Bill 1150 and about the methodological approaches underlying many state findings differed substantially.
- The future lifetime net savings or net financial benefit estimates provided in the cost and cost-benefit studies provided by respondents were calculated relative to government or family expenses and/or “to society.” However, accounting fully for non-governmental costs or benefits related to HB 1150 would quantify the economic effects this cost shift would have on health insurance premiums; on total health care goods and services consumed by both children with ASD and others in society; the impact of increased insurance premiums on the number of uninsured; and the opportunity costs of potentially reduced private sector consumption of goods and services. (See Section VII).

Submissions for House Bill 1150

1. Gary Ames, Licensed Psychologist
 - Statement addressing Section 9 requirements.
 - Attachments on neurofeedback and other research.
2. ASCEND – The Asperger Syndrome Alliance for Greater Philadelphia
 - Letter in support of House Bill 1150.
3. Autism Speaks
 - Letters and comments in support of House Bill 1150.
 - Attachments, including research studies concerning autism.
4. Blue Cross of Northeastern Pennsylvania
 - Statement addressing Section 9 requirements.
5. William M. Bolman, M.D.
 - Presentation given at the 37th Annual Conference of the Autism Society of America.
6. Capital Blue Cross
 - Letter and comments addressing Section 9 requirements in opposition to House Bill 1150
7. Highmark
 - Letter in opposition to House Bill 1150.
 - Comments addressing Section 9 requirements.
 - Research studies, government analyses, fact sheets and news articles on autism, as well as information about other states' experiences.
8. Independence Blue Cross
 - Letter and comments in opposition to House Bill 1150.
9. The Institute for Behavior Change
 - Letters addressing the need to preserve access to Medical Assistance programs for children with autism and comments on House Bill 1150.
10. The Insurance Federation of Pennsylvania
 - Letter and comments in opposition to House Bill 1150.
 - Statement addressing Section 9 requirements.
 - News articles and press releases about autism.
11. David S. Mandell, ScD (University of Pennsylvania School of Medicine) and Craig J. Newschaffer, PhD (Drexel University School of Public Health)
 - Letter and comments in support of House Bill 1150.
 - Research studies on autism.
12. The Honorable Dennis M. O'Brien, Speaker of the House, PA House of Representatives
 - Letters and comments in support of House Bill 1150.
 - Statement addressing Section 9 requirements.
 - Research studies, government analyses and fact sheets on autism, as well as information about other states' experiences.
 - Compendium of Public Comments.
13. Pennsylvania Association of Resources
 - Letter and comments in support of House Bill 1150.

14. The Pennsylvania Chamber of Business and Industry
 - Letter and comments in opposition to House Bill 1150.
15. Pennsylvania Department of Public Welfare
 - Letters in support of House Bill 1150.
 - Attachments about the social and financial impact of the proposed mandate and autism parity in other states.
 - Medical Assistance background information, including program data and cost estimates.
16. Pennsylvania Health Law Project
 - Letter in support of House Bill 1150 and comments (addressing Section 9 requirements) sent on behalf of constituent.
17. Pennsylvania Psychological Association
 - Letter and comments in support of House Bill 1150
18. Susquehanna Valley Center for Public Policy
 - Op-ed and research on autism.
19. Temple University's Behavior Analysis and Learning Laboratory
 - Letter and comments in support of House Bill 1150.
 - Signature from members of the Delaware Valley Association of Behavior Analysis.
 - Statement addressing Section 9 requirements.
 - Research studies about autism.
20. University of Pittsburgh School of Medicine's Autism Research Project
 - Letter in support of House Bill 1150.
 - Presentation on autism and related research.
21. The Vista Foundation
 - Letters and comments in support of House Bill 1150
 - Statement addressing Section 9 requirements.
 - Research studies, cost estimates and other attachments related to autism.
22. West Chester University's Speech and Hearing Clinic
 - Letter in support of House Bill 1150.
 - Research studies on autism.
23. Wolf Block Government Relations
 - Statement by AFLAC noting the importance of excluding certain policies from those affected by House Bill 1150.

More than 60 constituent letters and attached documentation in support of House Bill 1150.

17 letters from members of the Pennsylvania General Assembly in support of House Bill 1150.

ENDNOTES

¹ Douglas L. Leslie, Andres Martin, Health Care Expenditures Associated with Autism Spectrum Disorders, 161 *Archives of Pediatric and Adolescent Medicine*, 350-55 (2007).

² Pamela B. Peele, Judith R .Lave, Kelly J. Kelleher, Exclusions and Limitations in Children's Behavioral Health Care Coverage, 53 *Psychiatric Services*, 591-94 (2002).

³ Sharpe, Deanna L. and Dana Lee Baker, "Financial Issues Associated with Having a Child with Autism," *Journal of Family and Economic Issues*, no. 28 (2007), p. 262.

⁴Sharpe and Baker, op cited.

⁵ Chasson, G.S., Harris, G.E., and Neely, W.J. (2007) Cost comparison of early intensive behavioral intervention and special education for children with autism. *Journal of Child and Family Studies*, 16, 401-413.

⁶ Jacobsen, J.W., Mulick, J.A., and Green, G. (1998) Cost-benefit estimates for early intensive behavioral intervention for young children with autism: General model and single state case. *Behavioral Interventions*, 13, 201-226.

⁷ Lovaas, O.I. (1987) Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55, 3-9.

⁸ Lovaas, (1987) op cited.

⁹ McEachin, J.J., Smith, T., and Lovaas, O.I. (1993) Long-term outcome for children with autism who received early intensive behavioral treatment. *American Journal on Mental Retardation*, 97, 359-372.

¹⁰ Howard, J.S., Sparkman, C.R., Cohen, H.G., Green G., and Stanislaw, H. (2005) A Comparison of intensive behavior analytic and eclectic treatments for young children with autism. *Research in Developmental Disabilities*, 26, 359-383.

¹¹Sallows and Graupner, op cited.

¹² Howard et al. (2005), op cited.

¹³ See Ganz, M.L., (2007) The lifetime distribution of the incremental societal costs of autism. *Archives of Pediatric and Adolescent Medicine*. 161, 343-349. (p. 348).

¹⁴ American Academy of Pediatrics. (January 2007). *Medicaid facts: Pennsylvania*. Found online at <http://www.aap.org/advocacy/washing/elections/AAP%20Pennsylvania.pdf>

¹⁵ Jacobsen et al. (1998), op cited. (quote from p. 226)

¹⁶ Chasson, op cited, p. 402-3.

¹⁷ According to a report supplied by proponents, the United States *Department of Defense Report and Plan on Services to Military Dependent Children with Autism* (July 2007), p.13-15. It should be noted that respondent-supplied reports categorizing state autism laws varied widely in their definitions of "coverage." For example, BCNEPA cited America's Health Insurance Plans: *Summary of State Mandated Benefit Autism Laws* (as of July 5, 2007), which listed 13 states with laws mandating some form of coverage related to ASD; They are CA, CT, GA, IA, IL, IN, KS, KY, LA, MD, NH, NY and SC. (A copy of this report was not supplied to PHC4.)

¹⁸ Summarized from information provided in Speaker Dennis O'Brien's submission.

¹⁹ Fuhr, Joseph P., Jr., (2007) The impact of health benefit mandates: The California review program. *Health Watch*, January 2007, 20-21.

²⁰ Cohen, H., Amerine-Dickens, M., and Smith, T., (2006) Early intensive behavioral treatment: Replication of the UCLA model in a community setting. *Developmental and Behavioral Pediatrics*, 27 (2), 145-155.

²¹ *Clinical Practice Guideline. Report of the Recommendations. Autism/Pervasive Developmental Disorders.* (1999) New York State Department of Health Early Intervention Program. 138-139.

²² Chasson, op cited.