Explaining Growth of Mental Impairments among Children and Adolescents receiving SSI

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ABSTRACT

Objective: Given the current economic climate, there has been extensive political and media scrutiny of federal benefit programs, including the children's Supplemental Security Income (SSI) program. Lawmakers (among others) are specifically concerned with the large increase in the number of children and adolescents with a mental health impairment qualifying for SSI benefits. Little research has evaluated the claim that the increase in childhood mental health diagnoses in the general population accounts for the dramatic increase in these conditions in the SSI population over any given period of time. We sought to examine the rise in mental health diagnosis in the general population of children, and then compare the increases in the general population to the SSI population.

Methods: We utilized publicly available survey data to explore the trends of pertinent disabilities among children in both the general population of children ages 2-21 (dependent on survey instrument) and SSI population. National Health Interview Survey (NHIS), National Survey of Children's Health (NSCH), National Survey of Children with Special Healthcare Needs (NSCSHCN), Individuals with Disabilities Act (IDEA), and Social Security Administration (SSA) data were all examined to identify and evaluate pertinent trends in mental health disability from 2000-2011. We limited the analysis to 0-99%, 100-199% Federal Poverty Level (FPL) when available to make the general population data more comparable to the SSI population. We lastly utilized linear regression analysis to investigate significant differences among the percent changes for comparable conditions among the surveys.

Results: Our research indicates that the levels of autism, Attention Deficit Hyperactivity Disorder (ADHD), and developmental delay have increased in the general population of children ages 2-21 years old (according to survey instrument) approximately 1.4x-5.2x, 1.1x-1.3x, and 1.4x-4.0x respectively from 2000-2011 (income groups averaged). Among those groups which showed increases from 2000-2011 in the general population, it is notable that all disability conditions increased more so in the 0-99% FPL than in the 100-199% FPL group. There is no accurate comparison group to SSI for speech and language impairments in the NHIS. Since 2000, ADHD has increased 3.0x, autism 3.7x, and speech and language impairments 6.4x in the SSI population. There are significant differences between the percent change in the SSI population for autism, ADHD, developmental delay, mental retardation and learning disabilities in various surveys from 2000-2011.

Discussion: A clear answer as to whether or not the general population trends explain the large increases in the SSI mental health impairment category remains elusive. Considering a general decrease in mental retardation (possible diagnostic shift), increases in child poverty, and multiple co-morbidities which may exist in children both in the general population and children receiving SSI, it is difficult to draw conclusions based on currently available data.

INTRODUCTION & BACKGROUND

Established under Title XVI of the Social Security Act, the Supplemental Security Income (SSI) program provides benefits to financially needy individuals who are aged, blind, or disabled.[1] In 2011, approximately 1.27 million children and adolescents received SSI benefits. 67.5% of the children who received SSI benefits in 2011 received them for mental health impairments, with developmental disorders (20.4%), childhood and adolescent disorders not otherwise classified (19.6%), and intellectual disability (10.4%) being the largest reported diagnostic categories within the mental health impairment listing.[2] The average monthly cash benefit for this population in 2011 was $592 for a total SSI cash benefit expenditure of approximately $9 billion.[3]

Extensive descriptions of the growth of the SSI population have concentrated on the following factors; a) new rules that defined and expanded eligible children's mental health conditions in 1990, b) a Supreme Court decision (also in 1990) requiring systematic assessment of functioning and disability in childhood applicants[3], 3) a general rise in serious chronic mental health conditions among children and adolescents[4], and 4) an increase in child poverty.[5,6] Specific legislation which may have contributed to increases in the number of individuals qualifying for SSI under the mental health impairment category can be traced back as far as 1984, when Congress mandated that Social Security Administration (SSA) develop new disability standards for individuals with mental disorders. It is widely held that the most important standard among these was the mandatory specialist reviews of denials.[7] These revisions which steered the approval process more towards functioning of children were implemented in 1986, and the number of awards for mental disorders began to increase under the new listings.[8]

Other important events pertaining specifically to children were the *Zebley* court case in 1990 and overall revisions of the mental health listings in the same time frame.[9] The Zebley case resulted in new disability criteria for children claiming benefits which focused more closely on the functioning of the child rather than the diagnosed disability in itself. The number of children receiving awards increased dramatically after the court ruling, more than tripling between the late 1980s and mid-1990s. The focus after the Zebley court decision clearly focused more on maladaptive behavior, rather than the specific diagnosis of the child.[6] A significant portion of the increase can also be attributed to the revisions of the mental health listings, which included Attention Deficity Hyperactivity Deficit (ADHD) and other mental health conditions which classically were not offered awards even under the 1986 revised listings.

Efforts have been made to control the increases in children receiving SSI with mental health impairments, including welfare reform legislation in 1996. The legislation eliminated the individualized functional assessment and specific references to maladaptive behaviors which had been in place since the Zebley decision. The change did initially decrease the overall number of awards, but the program continued to increase shortly after the new legislation.[10]

Given the current economic climate, there has been extensive political and media scrutiny of federal benefit programs, including the children's SSI program. Lawmakers (among others) are specifically concerned with the large increase in the number of children and adolescents with a mental health impairment qualifying for SSI benefits (table 1). An ongoing Government Accountability Organization (GAO) study attempting to evaluate the claims that a general increase in serious chronic health conditions and a rise in poverty among children can be used to explain the increase in the number of children qualifying for SSI due to a mental health impairment, concluded "the relative effects of these and other factors on program growth are not fully known at this time."[11]

Little research has evaluated the claim that the increase in childhood disability in the general population (specifically disability due to mental health) is associated with the dramatic increase in these conditions in the SSI population over any given period of time. There is also a lack of comparison between the general and SSI populations on how changing diagnostic patterns (e.g., substituting one diagnosis for another), changing definitions of mental health conditions, changes in stigma associated with mental health, potential co-morbidities, and greater recognition of mental health conditions by parents, family, physicians, and community members may have all contributed to the increase in children receiving SSI under the mental health impairment category. A stronger body of research exists linking the increase in poverty among children[12], and co-morbidities among the general children's population with mental health impairments.[13,14]

We sought to examine the rise in mental health diagnoses in the general population, and then compare the increases in the general population to the SSI population. We hypothesize that there will be an association between the rise in mental health problems in the general population with the rise in mental health disability listed as the primary diagnosis among the SSI population.

RESEARCH DESIGN, METHODS, AND DATA ANALYSIS

We utilized publicly available survey data to explore the trends of pertinent disabilities among children in both the general population ages 2-21 (dependent on survey instrument) and SSI population. Described below are the data tools and surveys used to characterize these populations. We also tested for significant differences between the surveys by condition (dependent variable).

SSI

The data sources for the number of children qualifying under the mental health impairment category include publicly available reports published by the Social Security Administration (SSA). Specifically, we used the SSI Annual Statistical Report, 2011[3] and the SSA Annual Report for 2011.[4] These data reflect all children ages 1-18 receiving SSI within the indicated year. These data only reflect the primary diagnosis which qualifies the child for SSI funds, therefore there is no overlap in conditions (ex. if a child qualifies under the ADHD category, he/she only is counted once under that category).

NHIS
The National Health Interview Survey (NHIS) is a large-scale household interview survey that provides national estimates of demographic characteristics, health status and health care use, and access for the civilian non-institutionalized US population.[15] The sampling plan is a multistage probability design, redesigned after every decennial census. Data are collected by household interview with parents typically serving as respondents for children.[19]

In this study, we used the NHIS "sample child" data to search for children ages 2-17 who have ever been told they had the specified condition in **Table 2** from 2000-2011.[16] The NHIS data included in this study does specify income measures of respondents, and we included those within the income limits of 0-99%, and 100-199% of the Federal Poverty Level (FPL).

NSCH
The National Survey of Children's Health (NSCH), sponsored by the Maternal and Child Health Bureau of the Health Resources and Services Administration, examines the physical and emotional health of children ages 2-17 years of age using the State and Local Area Integrated Telephone Survey Program. Special emphasis is placed on factors that may relate to well-being of children. When selecting households, a pool of non-business telephone numbers was selected and a screening question of the presence of children under age 18 years in the household employed. The survey was conducted by CDC's National Center for Health Statistics (NCHS).[17]

We utilized the Data Resource Center for Child and Adolescent Health to search for the specific mental health disability categories included in **Table 3a** and **3b**.[18] We narrowed our search to only include those respondents with a particular disease entity and within the income limits of 0-99%, and 100-199% of the Federal Poverty Level (FPL).

NSCSHN
The National Survey of Children with Special Healthcare Needs (NSCSHCN), which is sponsored by the Health Resources and Services Administration and conducted by the Centers for Disease Control and Prevention, is a list-assisted, random-digit-dial, telephone survey administered to a representative sample of households in all of the 50 states and the District of Columbia. The parent or legal guardian who knows the most about the health and health care of the children in the household serves as the respondent for the interview. Follow-up telephone calls are made as necessary. The reference sample was drawn to facilitate comparisons of the health and health care characteristics of CSHCN and children without special health care needs.[19] We utilized the 2009/2010 and 2005/2006 survey, but not the 2001 survey as it did not provide a reliable comparison to the more current survey instruments.

We utilized the Data Resource Center for Child and Adolescent Health to search for the specific mental health disability categories included in **Table 4**.[20] We narrowed our search to only include those respondents with a particular disease entity, children ages 2-

17, and within the income limits of 0-99%, and 100-199% of the Federal Poverty Level (FPL).

IDEA

The Individuals with Disability Education Act (IDEA) child count data are unduplicated actual counts of all children and students with disabilities served under *IDEA*, Part B; the program is often referred to as the P.L. 94-142 program. The data presented includes all children ages 6-21 who have been identified as receiving services for the indicated disorders/disabilities from 2000-2011.

The IDEA data have been collected since 1976. Beginning with the 1994–95 school year, all children with disabilities were served under programs authorized by Part B and Part C of *IDEA*. The 1997 reauthorization of *IDEA* added the developmental delay category for children ages 6 through 9, renamed serious emotional disturbance to emotional disturbance, and added the requirement to collect race/ethnicity data.[21]

The definitions of identified disorders/disabilities by IDEA are well-established.[22] The IDEA data included in this study does not specify income measures of respondents.

STATISTICAL ANALYSIS

We utilized linear regression analysis and included a survey by time interaction term in order to test whether or not the slopes (the change in outcome over time) differ by survey. We were only able to compare autism spectrum disorders (ASDs), ADHD, developmental delay, learning disabilities, and mental retardation, as these conditions were consistently available on at least most of the surveys.

RESULTS

SSI

The Supplemental Security Income Recipients data from 2000-2011 (**Table 1a & 1b**) indicate large increases ADHD, autism, developmental delay, and speech and language delay. All mental health impairments as a whole have increased 1.5x since 2000. From 2000-2011, ADHD has increased 3.0x, autism 3.7x, developmental delay 3.0x, and speech and language impairments 6.4x. Other increases include learning disorder (2.0x), conduct disorder (2.1x), and mood and anxiety disorders (1.7x). It is also notable that there was a large decrease in intellectual disability (.5x) from 2000-2011.

NHIS

Table 2 demonstrates an overall increasing trend in the percentage of children reported having stuttering/stammering, ADD/ADHD, autism, and developmental delay from 2000-2011. Mental retardation and learning disability both show an increase in the 0-99% FPL groups, with a stable trend in the 100-199% FPL group from 2000-2011. The most notable findings are the dramatic increases in autism (approximately 4x greater in 2011 as compared to 2000 if both income groups averaged), and moderate increases in ADD/ADHD (1.3x) and developmental delay (1.5x) reported. There is no accurate comparison group to SSI for speech delay in the NHIS. Among those groups which

showed increases from 2000-2011, it is notable that all disability conditions increased more so in the 0-99% FPL than in the 100-199% FPL group.

NSCH

The National Survey of Children's Health in 2003 and 2007 (**Table 3a and 3b**) provide a direct comparison of the children who have been identified as current and past diagnosis of several key mental health conditions for comparison to the SSI population. The 2007 survey were collected in a different manner than in 2003. The 2007 survey differentiates whether the child had the diagnosis currently or in the past, while the 2003 survey only indicates if they have ever been told they have the condition. We thought it was a reasonable assumption to add the two categories in the 2007 together to provide more direct comparisons to the 2003 survey.

The general trends indicate increases in ADHD, Autism, Developmental Delay, Speech Problems, and Behavioral/Conduct Disorder among both income stratifications (0-99%, 100-199% FPL). The number of children reported as ever being diagnosed and/or currently carrying a diagnosis of ADHD increased 1.3 times from 2003-2007 for the 0-99% FPL group, and 1.2 times for the 100-199% FPL group. Autism, among 0-99% and 100-199% FPL groups, increased 3.6x and 3.0x respectively. Developmental delay increased 1.4x (0-99%) and 1.3x (100-199%) from 2003-2007. Depression decreased .7x and .6x among 0-99%, 100-199% FPL income groups, respectively, from 2003-2007. Speech problems increased 1.8x and 1.9x, and behavioral/conduct problems increased as well (1.5x, 1.1x).

NSCSHCN

Table 4 represents data from the 2009/2010 and 2005/2006 National Survey of Children with Special Healthcare Needs, age 2-17, stratified by income level. **Table 4** displays those health conditions which are reported as a current diagnosis. It is notable that the 2009/2010 survey did include a measure of "Diagnosed, but do not have currently", but we excluded this measure as it was not included in the 2005/2006 survey and therefore not comparable.

The number of children reported as currently having ADD/ADHD increased 1.1 times from 2005/2006-2009/2010 for the 0-99% FPL group, and 1.0 times for the 100-199% FPL group. Autism increased approximately 1.4 times between the same years in both income groups. Mental retardation/Developmental delay, which were separate categories in the more recent survey, were 2.0x (0-99% FPL) and 1.9x (100-199% FPL) greater among the population studied in the most recent survey. Depression and anxiety (separate categories in the more recent survey) did not change 1.0x, and increased 1.3x, respectively.

IDEA

The Individuals with Disabilities Education Act, Part B, 2000-2011 (**Table 5a and 5b**) data indicate no significant trend changes (excluding outliers) in speech or language impairments, multiple disabilities, hearing impairments, visual impairments, deaf-blindness, and traumatic brain injury. There have been general decreases from 2000-2011

in the number of children in schools receiving services for specific learning disabilities, mental retardation, serious emotional disturbance, and orthopedic impairments. Significant increases occurred in the population studied for autism (5.2x), developmental delay (4.0x) and other health impairments (2.5x).

PERCENT DIFFERENCE ANALYSIS BY CONDITION

A summary table which indicates percent change of comparable conditions across multiple national surveys is included in **Table 6**. Significant differences measured by linear regression analysis are also indicated.

Autism spectrum disorders (ASD) slope differs by survey ($p<.0001$). Using SSI as reference, the following surveys have significantly different slopes: NHIS (diff=-0.57, $p<.0001$), NSCH (diff=-0.31, $p=0.0142$), and NSCSHCN (diff=-0.39, $p<.0001$). The IDEA slope does not differ significantly from the SSI slope ($p=0.0668$).

ADHD slope also differs by survey ($p<.0001$). Using SSI as reference, the following surveys have significantly different slopes: NHIS (diff=-0.86, $p<.0001$) and NSCSHCN (diff=-1.47, $p<.0001$). The NSCH slope does not differ significantly from the SSI slope ($p=0.1504$).

Developmental delay slope does not differ by survey ($p=0.1231$). The NSCH slope differs significantly from the SSI slope (diff=0.20, $p=0.0291$), while the IDEA and NHIS slopes do not differ significantly from the SSI slope ($p=0.5371$ and $p=0.9228$, respectively).

Learning disability slope differs significantly by survey ($p<.0001$). The IDEA slope differs significantly from the SSI slope (diff=-0.76, $p<.0001$), while the NHIS slopes does not differ significantly from the SSI slope ($p=0.0553$).

MR slope differs significantly by survey ($p<.0001$). The IDEA slope differs significantly from the SSI slope (diff=2.91, $p<.0001$), and the NHIS slopes also differs significantly from the SSI slope (diff=3.23, $p<.0001$).

DISCUSSION

This research further explores and builds upon the limited literature currently in circulation.[23] To our knowledge, there is no literature which compares general trends in mental health diagnoses in the US population to mental health disability in the SSI population.

Our research indicates that the levels of autism have increased in the general population from 1.4x-5.2x (0-99%, 100-199% FPL), in comparison to 3.7x in the SSI population from 2000-2011. ADHD has also increased in the general population, ranging from 1.1x-1.3x from 2000-2011. ADHD has increased 3.0x in the SSI population during the same time period. Developmental delay has increased in the general population from 1.4x-4.0x, as compared to 3.0x in the SSI population. Children qualifying for SSI under the speech

and language impairment category have increased dramatically (6.4x) from 2000-2011. Unfortunately, national survey data, including NHIS, NSCH, NSCSHCN, do not provide comparable measures to this group of conditions (ex. NHIS measures stuttering/stammering, but that does not necessarily capture the breadth of speech/language delay).

The increases in autism spectrum disorders and developmental delay among SSI recipients are of a similar size as those found in the general population, although the percent change in the SSI population from 2000-2011 is significantly different for ASDs. Our investigation reveals, however, that the increase in mental health conditions among the general public does not fully account for the increases among the SSI population for conditions such as ADHD. This leads us to consider other factors which may better explain the increases in mental health diagnoses among the SSI population, especially for ADHD, including co-morbidities among children receiving SSI under the mental health impairment category, diagnostic reassignment, and overall increases in child poverty. Likely explanations of the discrepancy can be attributed to several factors. Larson, et al. (2011) note that large numbers of children with ADHD have co-morbidities, with the most number of children with ADHD and a co-morbidity being in the lowest income groups.[15] SSI does not record co-morbidities in their publicly available data, therefore it is difficult to discern how much the 3.0x increase in children with ADHD receiving SSI is actually do to an increase in ADHD and not to other co-morbid conditions. For example, the NSCH has separate categories for behavioral/conduct disorders and ADHD, in which behavioral/conduct disorders have experienced a large increase independent of the increase in ADHD. If a child has both ADHD and a behavioral/conduct disorder, it is possible that with both conditions and subsequent qualification for SSI the child is recorded as having ADHD as their primary diagnosis.

To further comment on speech and language delays, the IDEA data indicates no defining trend in children receiving services for school for speech and language impairments from 2000-2011, which may be a result of biannual and/or annual reevaluation of students with speech and language delay performed in schools. The lack of review of children receiving SSI for speech and language impairments in the form of CDRs may be a much more pertinent issue in this specific category. As mentioned previously, SSA does not record co-morbidities, and part of the speech and language impairment category may be reflective of 1) children who are yet to be diagnosed with autism, and 2) children who are also labeled as having developmental delay, but it is important to note that SSA does have separate categories for these measures and they also have shown large increases from 2000-2011.

It is important to include that the intellectual disability (formerly mental retardation) category under SSI has decreased by 1/2, accounting for 140,000 less children receiving SSI for intellectual disability. This also reflects with significant differences between MR in the SSI population and other national surveys. It is reasonable to postulate that general trends in diagnosis of intellectual disabilities may have shifted and account for some of the increases in other categories of SSI including autism, developmental delay, etc.

Potential Barriers/Limitations

There are several potential limitations to this study. Data taken from the NSCH and NSCSHCN are both based on population estimates according to survey results, and although they are generally thought of as reliable, it is important to note that they are based on estimates of the population and not true measures. Another important limitation is that all national survey data is parent reported. Diagnostic trends, different definitions of mental health impairments in different geographical areas, and overall understanding of the condition(s) may limit the utility of the national survey data. Co-morbidities may also impact the objectivity of the data in that 1) all co-morbidities may not be reflected in the survey data and 2) there is no reliable data which elucidates co-morbidities in the SSI population. For example, if children are receiving SSI and have several co-morbidities, then they are categorized according to their "primary diagnosis" and other conditions which may also qualify them for SSI are not specifically reported in the publicly available data.

The most notable limitation to the work presented here is that it is very difficult to compare the general population to the SSI population given that children only qualify for SSI if they have "marked and severe functional limitations".[24] Most public survey data, including the NSCH, NHIS, NSCSHCN, and IDEA, do not include categories which are directly comparable to SSI; therefore direct comparison to the general population is not possible at this time. Assumptions were also made in regards to a comparison of income, ie the national surveys only include 0-99% FPL, 100-199% FPL, etc., which does not necessarily preclude or qualify a family for SSI funds. We do believe however that this was the most conservative comparison to the SSI population in regards to income qualification for the program.

CONCLUSION

The debate over whether or not the increase in mental health impairments among children receiving SSI can be explained by the general increase in mental health disability is a current and contested issue. As the recently cited GAO study claims, there is limited evidence evaluating the claim by both advocates and critics of the children's SSI program. Although we evaluated multiple sources of data, a clear answer as to whether or not the general population trends explain the large increases in the SSI mental health impairment category remains elusive for conditions such as ADHD, which constitutes a large proportion of the increase among the SSI population. The incidence of autism spectrum disorders and developmental delay however appears to be increasing among the general population at similar rates as the SSI population.

More research at the national level, specifically national survey data and/or ongoing GAO study, may help to further tease out the question to more objectively inform policy changes. Considering a general decrease in intellectual disabilities (possible diagnostic shift), increase in child poverty, and co-morbidities which exist in many children both in the general population and children receiving SSI, it is difficult to draw conclusions based on currently available data.

Table 1a. Supplemental Security Income Recipients, 2000-2011, total count by mental health impairment.

Mental Health Impairment Category	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Organic mental disorders	27214	28303	24741	25090	25003	25378	25949	26177	26091	26580	27252	27802
Schizophrenic and other psychotic disorders	5909	6112	4561	4599	4322	4872	4810	4618	4500	4311	4223	4207
Mood disorders	24828	28038	25996	28533	32100	35249	37184	38355	39235	40443	42005	42985
Intellectual disability	275736	266413	239617	228874	216313	205216	192896	178266	163143	152475	141707	132944
Anxiety disorders	6439	6560	7002	7431	7908	8371	8812	9094	9487	9903	10291	10815
Somatoform disorders	96	88	91	107	102	100	110	113	116	116	113	113
Eating and tic disorders	308	300	324	326	310	314	283	314	290	302	311	317
Personality disorders	7195	7013	6094	6030	5926	5740	5585	5307	5044	4941	4760	4386
Conduct disorder	5312	5777	6902	7685	8327	8940	9285	9601	9906	10181	10571	10898
Oppositional/defiant disorder	7051	8315	10305	11738	12962	14158	14967	15501	15919	16552	17289	21981
Autistic disorders	29181	33371	34398	38756	43541	50098	56988	64884	73158	83618	94441	106875
Attention deficit hyperactivity disorders	74124	85898	104852	122049	138892	155873	169887	180682	189870	199394	211462	220060
Developmental disorders	9270	9660	13916	17806	16995	18791	20882	22710	24427	26290	27858	28699
Learning disorder	19424	22040	26265	30386	33829	37107	38919	39581	39599	39835	40241	40505
Speech and language delays	29839	38797	52618	65639	78775	93148	107640	122150	136425	154063	173580	191252
Borderline intellectual functioning	20037	22083	19838	20842	21740	22671	22721	22176	21463	21027	20488	19855
Other mental disorders	483	446	545	505	430	371	325	268	219	191	161	136
Total	542746	569836	578119	614196	648709	686397	717230	739797	758892	790222	826745	860491

Table 1b. Supplemental Security Income Recipients, 2000-2011, percentage of total by mental health impairment.

Mental Health Impairment Category	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Organic mental disorders	5.0%	5.0%	4.3%	4.1%	3.9%	3.7%	3.6%	3.5%	3.4%	3.4%	3.3%	3.2%
Schizophrenic and other psych disorders	1.1%	1.1%	0.8%	0.7%	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%	0.5%
Mood disorders	4.6%	4.9%	4.5%	4.6%	4.9%	5.1%	5.2%	5.2%	5.2%	5.1%	5.1%	5.0%
Intellectual disability	50.8%	46.8%	41.4%	37.3%	33.3%	29.9%	26.9%	24.1%	21.5%	19.3%	17.1%	15.4%
Anxiety disorders	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.3%	1.3%	1.2%	1.3%
Somatoform disorders	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Eating and tic disorders	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Personality disorders	1.3%	1.2%	1.1%	1.0%	0.9%	0.8%	0.8%	0.7%	0.7%	0.6%	0.6%	0.5%
Conduct disorder	1.0%	1.0%	1.2%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Oppositional/defiant disorder	1.3%	1.5%	1.8%	1.9%	2.0%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.6%
Autistic disorders	5.4%	5.9%	5.9%	6.3%	6.7%	7.3%	7.9%	8.8%	9.6%	10.6%	11.4%	12.4%
Attention deficit hyperactivity disorders	13.7%	15.1%	18.1%	19.9%	21.4%	22.7%	23.7%	24.4%	25.0%	25.2%	25.6%	25.6%
Developmental disorders	1.7%	1.7%	2.4%	2.9%	2.6%	2.7%	2.9%	3.1%	3.2%	3.3%	3.4%	3.3%
Learning disorder	3.6%	3.9%	4.5%	4.9%	5.2%	5.4%	5.4%	5.4%	5.2%	5.0%	4.9%	4.7%
Speech and language delays	5.5%	6.8%	9.1%	10.7%	12.1%	13.6%	15.0%	16.5%	18.0%	19.5%	21.0%	22.2%
Borderline intellectual functioning	3.7%	3.9%	3.4%	3.4%	3.4%	3.3%	3.2%	3.0%	2.8%	2.7%	2.5%	2.3%
Other mental disorders	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2. National Health Interview Survey, 2000-2011, "Sample Child" Conditions, ever been told they had the specified condition [25]

Disability Condition	% FPL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Stuttered/ Stammered	0-99%	2.60%	2.50%	3.33%	2.75%	2.87%	3.13%	3.87%	3.53%	3.62%	3.16%	3.65%	3.75%
	100-199%	1.86%	2.00%	1.93%	2.24%	2.71%	2.33%	1.91%	2.31%	2.53%	2.86%	2.21%	2.21%
Mental retardation	0-99%	1.52%	1.22%	0.71%	1.37%	1.29%	1.07%	0.36%	0.72%	0.77%	0.83%	0.84%	1.40%
	100-199%	0.87%	0.82%	0.73%	0.61%	0.69%	0.62%	1.08%	0.90%	1.02%	1.30%	0.75%	1.38%
Learning Disability	0-99%	9.92%	11.37%	12.35%	9.82%	12.02%	10.71%	10.43%	10.49%	11.04%	10.88%	11.00%	9.73%
	100-199%	8.98%	8.63%	8.97%	8.33%	7.66%	7.98%	8.70%	8.05%	9.30%	10.31%	8.80%	7.54%
ADD/ADHD	0-99%	5.74%	6.63%	8.24%	6.29%	7.61%	7.33%	8.52%	7.74%	8.22%	9.15%	9.35%	9.29%
	100-199%	6.52%	5.48%	6.21%	5.86%	6.59%	7.14%	7.31%	6.92%	7.08%	8.79%	7.31%	7.06%
Autism	0-99%	0.17%	0.33%	0.45%	0.25%	0.61%	0.36%	0.43%	0.59%	0.63%	0.92%	0.97%	0.96%
	100-199%	0.25%	0.26%	0.18%	0.33%	0.39%	0.49%	0.62%	0.63%	0.68%	0.87%	0.75%	0.87%
Developmental Delay	0-99%	3.26%	3.23%	3.88%	3.49%	4.24%	4.23%	4.33%	3.67%	5.58%	3.79%	4.85%	5.01%
	100-199%	3.33%	2.76%	3.00%	3.18%	3.61%	3.35%	3.58%	3.33%	3.98%	5.00%	4.82%	3.92%

Table 3a. National Survey of Children's Health, age 2-17, 2007, Currently have condition, Had condition at some point, 0-99% and 100-199% FPL.[26]

Currently have condition	FPL	%	Pop. Est.	**Had at some point, but not currently**	FPL	%	Pop. Est.	Total Pop. Est.
ADD/ADHD	0-99%	8.1	946431	Had ADHD at some point	0-99%	1.9	222767	1169198
	100-199%	6.9	931827		100-199%	2.1	288692	1220519
Autism	0-99%	1	113614	Had Autism at some point	0-99%	0.8	94365	207979
	100-199%	0.9	123139		100-199%	0.8	112190	235529
Developmental Delays	0-99%	4.9	567665	Had Dev. Delay at some point	0-99%	2.1	245622	813287
	100-199%	3.5	470570		100-199%	1.8	246676	717246
Depression	0-99%	4	474057	Had Depression at some point	0-99%	2.2	263418	737475
	100-199%	2.3	306846		100-199%	2	279270	586116
Current Speech Problems	0-99%	5.3	624846	Had speech at some point	0-99%	2.6	308400	933246
	100-199%	4.3	591289		100-199%	2.6	591289	1182578
Behavorial/Conduct Cond.	0-99%	6.7	791673	Had Beh./Conduct Cond.	0-99%	1.6	191144	982817
	100-199%	4.3	582739		100-199%	1.3	179386	762125

Table 3b. National Survey of Children's Health, age 2-17, 2003, Ever been told has specific condition, 0-99

Ever been told has condition	FPL	%	Pop. Est.
Ever been told has ADHD	0-99%	8	902302
	100-199%	6.9	1021750
Ever been told has Autism	0-99%	0.4	58434
	100-199%	0.5	79412
Ever been told has Developmental Delay	0-99%	5.7	599967
	100-199%	4	553277
Ever been told has Depression	0-99%	9.7	1103799
	100-199%	6.5	964555
Been told in last 12 months has speech problems	0-99%	3.9	515030
	100-199%	3.7	620977
Ever been told has behavior/conduct disorder	0-99%	5.8	651496
	100-199%	4.5	665890

Table 4. National Survey of Children with Special Healthcare Needs, age 2-17, 2003, 2009/2010, Currently have condition, 0-99% and 100-199% FPL.[28]

Currently have condition (2003)	FPL	%	Pop. Est.	**Currently have condition (2009/2010)**	FPL	%	Pop Est.
ADD/ADHD	0-99%	37.2	715844	ADD/ADHD	0-99%	34	779650
	100-199%	33.4	730866		100-199%	32	736873
Autism	0-99%	5.7	110093	Autism	0-99%	6.9	158820
	100-199%	6.1	133357		100-199%	7.9	181789
Mental Retardation/	0-99%	17.7	348714	Mental Retardation	0-99%	6.9	159245
Developmental Delay	100-199%	14.5	323017		100-199%	6.6	151963
				Developmental Delay	0-99%	23.2	534442
					100-199%	20.3	470568
Depression, Anxiety, etc.	0-99%	30.1	597847	Depression	0-99%	16.4	381376
	100-199%	25.2	561267		100-199%	12	278893
				Anxiety	0-99%	19.8	457370
					100-199%	19.2	444836
Difficulty speaking	0-99%	33.2	652109				
	100-199%	27.8	613751				

Table 5a. IDEA, Part B, 2000-2011, Total Count of Children of School-Age (6-21) with Indicated Disorders/Disabilities.[29]

Disability Condition	2000-01	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Spec. learning disabilities	2,887,217	2,878,554	2,867,069	2,839,295	2,782,837	2,711,849	2,620,240	2,522,735	2,483,391	2,412,801	2,354,790
Speech/language impairments	1,093,808	1,110,858	1,128,102	1,149,573	1,156,906	1,162,144	1,154,165	1,121,496	1,107,029	1,089,976	1,071,200
Mental retardation	612,978	591,721	582,624	567,633	546,030	523,528	498,159	475,713	460,964	444,894	430,819
Serious emotional disturbance	473,663	482,024	484,548	484,457	472,470	458,841	440,202	417,872	405,293	387,368	371,425
Multiple disabilities	122,559	130,819	132,746	133,366	134,037	133,810	132,594	123,924	124,380	123,417	124,957
Hearing impairments	70,767	71,962	72,002	72,599	72,407	72,783	72,160	70,682	70,548	69,685	69,220
Orthopedic impairments	73,057	73,956	68,184	65,355	63,119	62,004	60,523	62,332	57,930	55,704	54,382
Other health impairments	291,850	392,951	452,708	512,219	561,618	600,377	631,188	648,112	678,640	703,912	733,960
Visual impairments	25,975	26,079	25,875	26,058	26,022	26,481	26,423	25,790	25,813	25,632	25,673
Autism	78,749	118,846	141,140	166,491	193,840	224,594	258,305	292,638	333,022	369,774	406,957
Deaf-blindness	1,320	1,600	1,664	1,702	1,588	1,406	1,380	1,735	1,359	1,281	1,374
Traumatic brain injury	14,844	21,487	22,526	23,263	23,515	23,777	23,864	24,857	24,395	24,594	24,878
Developmental Delay	28,935	58,265	66,259	74,368	79,082	83,990	88,629	96,853	104,432	109,036	115,568
All disabilities	5,775,722	5,959,122	6,045,447	6,116,379	6,113,471	6,085,584	6,007,832	5,884,739	5,877,196	5,818,074	5,785,203

Table 5b. IDEA, Part B, 2000-2011, Percentage of All Disabilities, Children of School-Age (6-21) with Indicated Disorders/Disabilities.

Disability Condition	2000-01	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Specific learning disabilities	50.0%	48.3%	47.4%	46.4%	45.5%	44.6%	43.6%	42.9%	42.3%	41.5%	40.7%
Speech or language impairments	18.9%	18.6%	18.7%	18.8%	18.9%	19.1%	19.2%	19.1%	18.8%	18.7%	18.5%
Mental retardation	10.6%	9.9%	9.6%	9.3%	8.9%	8.6%	8.3%	8.1%	7.8%	7.6%	7.4%
Serious emotional disturbance	8.2%	8.1%	8.0%	7.9%	7.7%	7.5%	7.3%	7.1%	6.9%	6.7%	6.4%
Multiple disabilities	2.1%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.1%	2.1%	2.1%	2.2%
Hearing impairments	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Orthopedic impairments	1.3%	1.2%	1.1%	1.1%	1.0%	1.0%	1.0%	1.1%	1.0%	1.0%	0.9%
Other health impairments	5.1%	6.6%	7.5%	8.4%	9.2%	9.9%	10.5%	11.0%	11.5%	12.1%	12.7%
Visual impairments	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Autism	1.4%	2.0%	2.3%	2.7%	3.2%	3.7%	4.3%	5.0%	5.7%	6.4%	7.0%
Deaf-blindness	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Traumatic brain injury	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Developmental Delay	0.5%	1.0%	1.1%	1.2%	1.3%	1.4%	1.5%	1.6%	1.8%	1.9%	2.0%
All disabilities	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6. Percent Change of Comparable Conditions across Multiple National Surveys.

Survey	Years	ASD	ADHD	DEV DEL	LEA DIS	MR
SSI	2000-2011	7.0%	11.9%	1.6%	-1.3%	-35.4%
NHIS	2000-2011	**0.7%****	**2.1%****	1.2%	-0.9%	**0.3%****
NSCH	2003-2007	**1.3%***	2.0%	**1.4%***	NR	NR
NSCSHCN	2003-2009	**1.5%****	**-2.3%****	NR	NR	NR
IDEA	2001-2011	5.6%	NR	1.5%	**-9.3%****	**-3.2%****

** Indicates significant difference with $p < .01$ in comparison to SSI percent change.
* Indicates significant difference with $p < .05$ in comparison to SSI percent change.

Appendix A

Abbreviations:
SSI - Supplemental Security Income
SSA – Social Security Administration
NHIS – National Health Interview Survey
NSCH – National Survey of Children's Health
NSCSHN – National Survey of Children with Special Healthcare Needs
CDRs – Continuing Disability Reviews
DDS – Disability Determination Service
GAO – Government Accountability Office
IDEA – Individuals with Disabilities Education Act
FPL – Federal Poverty Level

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