

## A model of regional training and service delivery for children with ASD

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**Background:** Despite advances in early identification and treatment, it is difficult to estimate the extent to which we can successfully serve an entire population of persons with autism. We present examples of analyses conducted for the public schools in the state of Delaware that document meaningful progress towards this goal.

**Objectives:** To establish: (a) how many children with autism receive highly specialized educational services; (b) how many educators receive training and support within a more specialized program, and (c) how many children and families receive other specialized supports.

**Methods:** We estimate the proportion of children identified and receiving services within the public school system relative to an estimated 1/150, and as a function of the child's characteristics and type of program received. We also report the proportion of educators serving children within highly specialized programs, who have received training in essential elements of evaluation and ABA. We then present data on the delivery of respite and residential services statewide, as well as consultation and review regarding severe behavior problems.

**Results:** We have identified about one-half of the children likely to require relatively more intense and specialized programs, and most of these are enrolled in highly specialized programs. Though most staff members in such programs have additional training, training outside of this program is much more limited. Few children required some form of residential services, though respite was used by more than 20%. Additional oversight was required for more than 15% of students demonstrating chronic and/or severe behavior problems.

**Conclusions:** Together, these results illustrate how programs with a regional mandate might establish goals for identification and treatment, and track progress towards ensuring equal access to highly specialized services and supports. It remains, however, more challenging to identify and develop services for higher-functioning children.

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### **Background**

Despite advances in early identification and treatment, it is difficult to estimate the extent to which we can successfully serve an entire population of persons with Autism Spectrum Disorder (ASD). Here, we describe analyses conducted regarding services provided by the Delaware Autism Program (DAP) for the public schools across the state of Delaware that we think document meaningful progress towards this goal. Established almost 30 years ago, DAP

provides comprehensive educational services to more than 650 students, up to 21 years of age, and in 6 school districts and 42 sites statewide.

### **What are highly specialized services?**

Highly specialized services refer here to educational services above and beyond what is typically available to the most children and adolescents with significant emotional and learning needs. High standards for such services drawn from available research are rarely achieved outside of model programs, especially beyond the elementary school years. We therefore set out to establish what kind of standard could be attained for the majority of students affected by ASD in a region. The standards here are drawn from the National Research Council (2001) review, and include: daily individualized 1-1 or small group instruction; services to the entire spectrum; reliance on valid diagnostic tools; access to full-time, year-round educational service; integrated into typical settings as appropriate, and; statewide resources and standards for specialized training and oversight.

### **Methods**

- We obtained student data (number of identified with an educational classification of autism) from the Delaware Department of Education.
- We calculated the expected number of children likely to have ASD by multiplying Delaware census figures by 0.0066 (e.g., 1/150).
- Some of the data regarding staff training (i.e., ABA, PECS, Safety, Teacher Certification) were gathered via surveys completed by staff.
- All other data were derived from records maintained by the Statewide Director's Office, as part of ongoing program monitoring.
- All data were gathered between April and December 2007, except for the data gathered on Oversight, summarized in May 2006

### **Results**

#### **DAP's Highly Specialized Services**

In addition to the highly specialized services defined below, DAP provides

- Daily individualized 1-1/small group instruction: Low staff-student ratios (1 teacher/4-6 students, with at least 1 assistant; low specialist caseloads)
- Year round services: 12 month program, at least 45 weeks per year
- Integration as appropriate: Fewer than 25% served in separate schools

#### **Students identified and enrolled in DAP**

All children enrolled in DAP within the past 3-6 years were identified according to revised state regulations that align educational classification criteria with the DSM-IV, & that include all ASDs. These multidisciplinary evaluations emphasize convergence in symptomatology across the ADOS, ADI-R, and unstructured classroom observations.

Proportion identified: Assuming a prevalence of 1/150, the proportion of students with ASD in Delaware identified as such by the school system

Enrolled in DAP: (a) The proportion of the overall expected number of students with ASD served in DAP; (b) The proportion of those educationally identified with ASD in Delaware and served in DAP

Age	Proportion Identified	Enrolled in DAP	
		Overall	Identified
Preschool	62%	55%	90%
Elementary School	62%	57%	92%
Middle School	56%	46%	83%
High School	28%	23%	85%
Overall	52%	45%	88%

**Professional Development**

All training described here is in addition to that typically received by special educators. We focus on those trainings offered regularly and now considered mandatory for DAP staff statewide, and ignore other isolated training events.

*Training for specialized staff statewide*

Educational Classification: 85 DAP staff have completed 18-30 hours of training on a highly structured protocol that includes the ADOS and/or ADI-R

Behavior assessment & Intervention: Since 2004, all 18 psychologists newly hired have completed at least a 15 hour introductory training; all others have completed at least 12 hours of advanced training or related activities.

Safety trainer certification: 20 Safety Trainers have completed 4 day initial trainings, and one day re-certifications completed annually.

*Essential training for all staff*

The majority of DAP state statewide have accessed - and have completed - Safety training: 7 hour Devereux OR CPI crisis/restraint training OR demonstrated competence;

Completed within past year

ABA-based educational techniques: 2+ days, completed in last 4 years; Includes Pyramid overview, or ABLLS training

Picture Exchange Communication System: 2 days within last 4 years

*Autism certification for teachers*

65/130 (50%) of teachers have completed a 15 credit post-graduate certificate in autism. This certification is required according to state regulations.

**Oversight**

Note that some of these results have been summarized elsewhere (Doehring, 2006)

*Peer Review of Behavior Support Plans (BSPs)*

DAP’s independent Peer Review Committee (PRC) is mandated by state law and includes 3 experts in ASD and applied behavior analysis. PRC conducts monthly reviews of all BSPs that address potentially dangerous behaviors, and/or necessitate intrusive procedures or a relatively restrictive placement. During the 2005-2006 school year, 15% of all DAP students were subject to PRC review. PRC recommended program changes in 51% of these reviews (an average of 3 recommendations per student per review).

*Student Safety*

A 2<sup>nd</sup> oversight committee mandated by state law (the Statewide Monitoring Review Board) audited compliance statewide regarding the use of Safety Procedures in response to dangerous student behavior

Of the 6 DAP sites: 2 demonstrated compliance with most but not all at Level I; 2 demonstrated full compliance with Level I and part of Level II, and; 2 sites (including the largest) demonstrated full compliance with Level II.

<p><u>Level I:</u> Written guidelines are available; Staff understand &amp; are trained in procedures; Safety procedures are reliably implemented &amp; documented</p>
<p><u>Level II:</u> Level I PLUS Program leaders review documented incidents, assure high rate of staff compliance with the procedures, and implement more detailed tracking for high-risk students.</p>

Note that DAP is the only public school program in the United States to offer the services described below.

**Extended Services**

*Residential Services*

DAP operates a 15-bed, community-based residential program that serves an average of 25 students on a part-time (e.g., 2-5 nights/week) basis, and that is made accessible to students statewide. Together with the school program, we currently meet the needs of all but one student with ASD in Delaware.

*In-Home Respite Services*

With state and local support, DAP staff can choose to provide respite to DAP students, in the student's or staff member's home. During the 2006-07 school year, respite was available to 4/6 sites (serving 90% of students statewide). About 20% of families used respite, and for an average of 19 hours/month.

**Conclusions**

**Specialized programming**

We have defined a standard for a highly specialized program, and have attained this for a significant proportion of students within a large region:

- Intensive, integrated services: Full-time, year-round programming; low staff:student ratios; majority of students integrated into typical, public schools
- Training: Autism certification (Teachers); Identification of ASD (Specialists); Behavior support (Psychologists); ABA and student safety (All staff).
- Oversight: Independent peer review for students with particularly challenging behaviors; Review of program response to students with dangerous behaviors
- Extended services: Part-time residential services help us to meet the needs of almost all students with ASD in the state. When respite is made available to most families statewide, about 20% use an average of 19 hours/month.

**Identification**

At present, the number of students identified with ASD is about 1/2 of what would be expected given current prevalence estimates. The vast majority of those identified are served

within DAP. Given the rigorous assessment protocol, we feel confident that most of those identified in DAP within the past 6 years are likely to have ASD. Since educational classification focuses on the primary or secondary disability, however, some students with co-morbid diagnoses may not be educationally identified with ASD. We also suspect that the majority of those not identified are relatively higher-functioning, require relatively less intensive and specialized services, and therefore are less likely to be referred to DAP. We are now seeking to identify the needs of this population of students, and beginning by providing increased training in identification to public schools outside of DAP.

## **References**

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