

The Medical Home and Health Care Transition for Youth With Autism

Jessica E. Rast, MPH,^a Paul T. Shattuck, PhD,^a Anne M. Roux, MPH,^a Kristy A. Anderson, MSW,^a Alice Kuo, MD, PhD^b

abstract **BACKGROUND:** Our objective in this study was to describe the association between the receipt of health care transition services (HCTS) and having a medical home in youth with autism spectrum disorder (ASD). Youth with ASD receive HCTS less often than other youth with special health care needs but are in particular need of continuous, comprehensive health care.

METHODS: We used the National Survey of Children with Special Health Care Needs to describe the receipt of HCTS in youth with ASD and its association with presence of a medical home. Descriptive statistics are presented, and logistic regression is used to assess the association between medical home and HCTS.

RESULTS: Twenty-one percent of youth with ASD met the criteria for receiving HCTS. Youth with ASD and a medical home were almost 3 times as likely to receive HCTS as youth without a medical home, and youth who received family-centered care and have adequate care coordination within the medical home were more than twice as likely to receive HCTS as those who did not.

CONCLUSIONS: Youth with ASD are not receiving HCTS at the same rate as their peers. Increasing provider awareness of autism, the components of a medical home, and of the importance of HCTS could greatly help increase the percentage of youth who receive effective HCTS.

^aLife Course Outcomes Research Program, A.J. Drexel Autism Institute, Drexel University, Philadelphia, Pennsylvania; and ^bCenter for Healthier Children, Families and Communities, University of California, Los Angeles, Los Angeles, California

Ms Rast conceptualized and designed the study, drafted the initial manuscript, and performed data analysis; Dr Shattuck advised and participated in data analysis, the conceptualization and design of the study, and initial manuscript drafting and editing; Ms Roux participated heavily in manuscript revision and direction, as well as the interpretation of the data in a useful manner for the manuscript; Ms Anderson participated in the conceptualization of the related theories and concepts, as well as manuscript revision, heavily reordering the introduction, methods, and results to be more understandable; Dr Kuo participated in manuscript revision, particularly in the implications of the findings in practice and policy, and conceptualized the importance of the findings in the field; and all authors approved the final manuscript as submitted.

DOI: <https://doi.org/10.1542/peds.2016-4300J>

Accepted for publication Sep 26, 2017

Address correspondence to Jessica E. Rast, MPH, A.J. Drexel Autism Institute, Drexel University, 3020 Market St, Suite 560, Philadelphia, PA 19104. E-mail: jer336@drexel.edu

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2018 by the American Academy of Pediatrics

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

The transition from adolescence to young adulthood is a time of great change. It marks the end of secondary education and legal status as a child, distinct physical changes, and the beginning of new responsibilities and social roles. This transition period is often tumultuous, and those with disabilities and special health care needs have a harder time during this transition because changes in eligibility for supportive services pose unique challenges.^{1,2} Individuals on the autism spectrum are particularly vulnerable during these transitions because of the core symptoms of the disorder and the lack of available resources for support through transition and into adulthood.^{3,4} In this study, we examined the health care transition of youth on the autism spectrum to gain insight on the mutable factors associated with successful transitions.

Autism spectrum disorder (ASD) is a developmental disability characterized by social communication and interaction deficits, restricted and repetitive patterns of behavior, and significant functional impairment.⁵ In the United States, 1 in 68 children are estimated to have ASD, with ~50 000 youth with autism turning 18 years old every year.^{6,7} Of youth with ASD, 50% have a co-occurring medical condition that requires regular medical attention, and of youth with ASD ages 15 to 17 years, 60% have at least 2 conditions in addition to ASD.^{8,9} Because of the demand placed on the medical system by the growing numbers of youth with ASD, their complex and prevalent comorbid health care needs, and their need for specialty care, the barriers to the receipt of sufficient health care services and the need for care and specialty care are concerning.

Better health care transition and more comprehensive health care in young adulthood have the potential to improve the health outcomes

of people with ASD. Health care transition is the individualized process of care that is used to address the comprehensive health care needs of children as they age into adulthood and is designed to maximize lifelong functioning and potential by providing patient-centered care during that transition.¹⁰ Youth with special health care needs (YSHCN) often have more need for health care transition services (HCTS) than do other youth,¹¹ and youth with ASD often have more outpatient and inpatient hospital visits that are longer in mean duration, more emergency department visits, more primary care and psychiatric visits, more health care claims, and higher health care expenditures than other YSHCN.¹²

YSHCN and youth with ASD with a medical home may be more likely to have had a discussion with their doctors about a plan to address their changing health care needs as they enter adulthood.^{8,13} Youth with ASD with a medical home may also experience fewer barriers to adequate care and less impact on parental work and finances.^{14,15} A medical home is a concept described by the American Academy of Pediatrics and should include a comprehensive, centralized medical record, culturally competent care, interaction with schools and early intervention services, and provide families with clear, unbiased information.¹⁰

The greater use of health care services reveals that youth with ASD could benefit greatly from HCTS and a medical home. However, current research reveals that youth with ASD receive both of these things less often than do other YSHCN.^{16,17} The presence of co-morbid conditions, which is common in ASD, is also associated with a lower rate of HCTS.¹⁷ Common comorbid conditions include intellectual disability, mental health conditions (eg, depression and anxiety),

attention-deficit/hyperactivity disorder, and epilepsy.^{18,19}

To improve our understanding of the mutable factors that may influence HCTS receipt in individuals with ASD, we had 3 main aims. First, we describe the distribution of predisposing, enabling, and need factors as theorized in Andersen and Davidson's²⁰ model for youth who do and do not receive HCTS and describe significant differences. Second, we examine whether the receipt of care within a medical home is associated with the receipt of HCTS. Third, we assess the association between each component of the medical home and the receipt of HCTS. We hypothesize that the presence of a medical home will be associated with a higher likelihood of receiving HCTS. Among the individual components of the medical home, we hypothesize that care coordination will have the largest association with receiving HCTS because of the high rate of complex needs in the ASD patient population. Answering these questions may reveal potential targets for health policy change and provider education with the goal of increasing the receipt of HCTS in this vulnerable population.

METHODS

Data Source

Data for this analysis came from the 2009–2010 National Survey of Children with Special Health Care Needs (NS-CSHCN). The NS-CSHCN is a national survey conducted by the National Center for Health Statistics of parents of children ages 0 to 17 years with special health care needs and is funded by the Health Resources and Services Administration's Maternal and Child Health Bureau. Of the 40 242 completed surveys, 3055 included children whose parents reported that their children had a current ASD diagnosis. Of these, analysis was restricted to youth ages 12 to

17 years with complete data on the health care transition service indicators ($n = 1119$). Detailed information on the sampling and study design of the NS-CSHCN has been published.²¹

Outcome Measure

The outcome of interest was the receipt of HCTS. We used the Child and Adolescent Health Measurement Initiative (CAHMI) indicators for HCTS receipt and medical home receipt,²² which were created to meet the American Academy of Pediatrics definitions. The 4 components of HCTS receipt include the following: discussing the switch to a doctor who treats adults if necessary, discussing changing health care needs as an adult, planning how to get or keep insurance coverage as an adult, and encouragement by the doctor for the child to take age-appropriate responsibility for his or her health care.²² To meet the requirement for the receipt of HCTS, the parent had to report meeting all 4 components of HCTS or report not needing a component. This indicator was first used in the current form in the 2005–2006 iteration of the NS-CSHCN and has since been used in many research studies and to inform Healthy People 2020 goals.

Covariates

We organized our thinking using Andersen and Davidson's²⁰ model of health care use. This model clustered predictors of health care use into 3 main groups: predisposing factors (factors or conditions that influence an individual's propensity to use services), enabling factors (conditions that help or hinder service use), and need factors (aspects of health impairment that require medical services).

The main covariates of interest were the presence of a medical home (indicated by an affirmative response to all components or not needing certain components) and

its constituent components: having a personal doctor or nurse, having a usual source of sick and well care, experiencing family-centered care, the ability to get needed referrals, and receiving effective care coordination.²²

In accord with Andersen and Davidson's²⁰ model of health care use, covariates were placed into 3 categories. Categories for predisposing factors (race and ethnicity, primary language spoken in the household, household composition and family structure, and highest level of parent education), enabling factors (household income, type of insurance held by the youth, number of children and children with special health care needs in the household, and receipt of care within a medical home), and need factors (parent-reported ASD severity, level of daily activity limitations because of disability, and number of health conditions reported from a list of 20 conditions) can be seen in Table 1.

All of the factors included in analysis have been found in previous research to be associated with HCTS and the presence of a medical home in youth with ASD^{8,14,15,17,23} as well as all YSHCN.^{24,25}

Statistical Analysis

Analyses were conducted using the NS-CSHCN 2009–2010 Data Resource Center for Child and Adolescent Health indicator data set, which is available through a data use agreement. The distributions of independent variables stratified by HCTS receipt are presented as weighted proportions. Differences in the distribution of these factors between those who received HCTS and those who did not were tested by using weighted logistic regression, with HCTS receipt being the dependent variable and 1 covariate being included per model. Weighted logistic regression was used to assess the relationship between the receipt

of HCTS and the medical home and its constituent components. There were 2 final models, 1 with the composite measure of medical home as a main predictor and 1 with the 5 components of medical home as individual predictors. Both models controlled for all predisposing, enabling, and need factors. All analyses were done in Stata 13 (StataCorp, College Station, TX) and took into account the complex sampling design of the survey.

RESULTS

Among youth with ASD, 21% met the criteria for receiving HCTS. There were no significant differences between youth who received HCTS in predisposing factors.

There were significant differences in enabling factors: 38.9% of youth who received HCTS lived in households at $\geq 400\%$ of the federal poverty level compared with 30.9% of youth who did not receive HCTS. Other enabling factors did not significantly differ between youth who received HCTS and youth who did not. Two of the 3 need factors differed significantly; youth with ASD who received HCTS had lower parent-reported levels of severity and less often reported high levels of activity limitations than did youth with ASD who did not receive HCTS. Of youth with ASD whose parents reported mild severity, 27% received HCT services, as did 20% of those with moderate severity and 10% of those with severe parent-reported severity. Similarly, more youth who reported lower levels of daily activity limitations received HCTS (Table 1).

Significantly more youth who received HCTS had access to a medical home than did youth who did not receive HCTS. Considering medical home components, significantly more youth who received HCTS received family-centered care and had adequate care coordination than did youth who did not receive HCTS. There were no significant differences between

TABLE 1 Distribution of Predisposing, Enabling, and Need Factors for Youth With ASD Ages 12–17 Years Who Do and Do Not Receive HCTS

	Met Necessary Components of HCTS Receipt		Did Not Meet Necessary Components of HCTS Receipt	
	Weighted %	SE	Weighted %	SE
Predisposing factors				
Race and/or ethnicity				
Hispanic	6.5	2.5	12.4	2.3
White, non-Hispanic	75.1	4.6	69.3	2.9
African American, non-Hispanic	5.1	2.3	10.0	1.8
Other, non-Hispanic	13.3	3.8	8.3	1.6
Primary language spoken in the home				
English	97.1	1.7	96.4	1.5
Other	2.9	1.7	3.6	1.5
Household composition				
2 parents, biological or adopted	57.9	4.9	55.2	3.0
2 parents, step-family	11.1	2.6	7.9	1.4
Mother-only household	23.6	4.5	25.1	2.5
Other family structure	7.4	2.4	11.9	2.3
Highest level of parent education				
Less than high school	2.4	1.3	10.6	2.5
High school graduate	22.1	4.6	14.1	2.2
More than high school	75.6	4.7	75.3	3.0
Enabling factors				
Household income, % FPL				
0–99	7.2	2.5*	18.1	2.5*
100–199	21.9	4.3*	18.3	2.2*
200–399	32.1	4.6*	32.8	2.9*
≥400	38.9	4.8*	30.9	2.7*
Insurance type				
Private only	50.9	5.0	48.5	3.0
Public only	31.6	5.1	27.3	2.6
Both public and private	16.5	3.9	21.3	2.9
Uninsured	1.1	0.6	3.0	0.9
No. children in household				
1	35.1	4.7	36.0	2.8
2	46.6	4.9	37.6	3.0
3	10.3	3.0	17.1	2.3
≥4	8.1	2.8	9.4	1.8
No. children with special health care needs				
1	73.4	4.6	71.1	2.8
2	21.0	4.3	22.9	2.6
≥3	5.6	2.5	6.1	1.8
Need factors				
Parent-reported severity of ASD				
Mild	55.6	4.9**	40.5	2.9**
Moderate	36.8	4.8**	40.5	3.0**
Severe	7.7	2.9**	18.9	2.7**
Level of activity limitation in the past 12 mo				
Never affected	9.1	2.4**	6.0	1.5**
Moderately affected, some of the time	37.1	4.9**	21.0	2.2**
Consistently affected, often a great deal	53.8	5.0**	73.0	2.5**
No. conditions reported				
1	6.7	2.3	6.5	1.6
2	16.6	3.5	12.2	1.8
3	24.7	4.4	14.6	2.0
≥4	52.1	4.9	66.8	2.8

Shown is the distribution of the key covariates in youth with ASD with and without a medical home and a comparison of the difference in distribution between the 2 groups. The covariates are conceptualized and displayed by using Andersen and Davidson's²⁰ model of health care use. We used logistic regression to test for difference across groups, with HCTS as the dependent variable and 1 variable per model. FPL, federal poverty level.

* $P > .05$.

** $P > .01$.

TABLE 2 Presence of Medical Home Components for Youth With ASD Ages 12–17 Years With and Without HCTS

	Youth With ASD Ages 12–17 y Who Receive HCTS (21%)		Youth With ASD Ages 12–17 y Who Do Not Receive All Needed HCTS (79%)	
	Weighted %	SE	Weighted %	SE
Has all medical home components if needed	45.2	4.9***	21.6	2.3***
Receives family-centered care	71.3	4.8***	47.2	3.0***
Has adequate care coordination if needed ^a	59.9	5.3***	31.3	2.8***
Has no problem getting referrals if visits to other doctors are needed	83.6	6.5	65.2	4.6
Has a usual source of sick and well care	92.6	2.8	89.6	2.1
Has a personal doctor or nurse	94.1	3.0	94.2	1.2

Shown is the percent of youth with ASD who have each component of a medical home, meet all necessary components, and are considered to have a medical home. Statistically significant differences between youth who receive HCTS and youth who do not are marked. We used logistic regression to test for difference across groups, with HCTS as the dependent variable and 1 variable per model.

^a Of those who needed care from a specialty doctor or other type of care (including counseling), had >1 doctor to communicate with, or had programs with which the doctor needed to communicate.

*** $P > .001$.

TABLE 3 Logistic Regression Models of Receiving HCTS Among Youth With ASD Ages 12–17 Years

	Model 1: Medical Home as the Main Predictor ^a		Model 2: Medical Home Components as the 5 Main Predictors ^a	
	aOR	95% CI	aOR	95% CI
Met all needed components of having a medical home	2.75	1.69–4.48	—	—
Receives family-centered care	—	—	2.39	1.38–4.13
Had adequate care coordination if needed	—	—	1.97	1.14–3.38
Had no problem getting referrals if needed	—	—	2.26	0.69–7.34
Had a usual source of sick and well care	—	—	1.22	0.46–3.24
Had a personal doctor or nurse	—	—	0.89	0.24–3.25

We include 2 models for representing the association between health care transition and the medical home. Model 1 shows the association between the presence of a medical home and health care transition, and model 2 shows the association between each component of a medical home and health care transition. aOR, adjusted odds ratio; CI, confidence interval; —, not applicable.

^a Other variables that were controlled for in this model include race, ethnicity, primary language spoken in the household, household income as a percent of the federal poverty level, family structure, parent-reported severity of ASD, level of activity limitation in the last 12 mo, type of insurance, No. children in the household, No. children with special health care needs in the household, highest level of parent education, and No. conditions from a list of 20.

receiving HCTS and the presence of the other 3 medical home components (Table 2).

The odds of receiving HCTS were 2.75 times higher for youth who met all 5 components of having a medical home (model 1; Table 3). The odds of receiving HCTS were 2.39 times higher for those receiving family-centered care and 1.97 times higher for those receiving adequate care coordination

(model 2; Table 3). Getting needed referrals, having a usual source of sick and well care, and having a personal doctor or nurse were not significantly associated with receiving HCTS.

DISCUSSION

We examined the relationship between the provision of care within a medical home and the receipt

of HCTS in youth with ASD. Only one-fifth of youth with ASD receive HCTS, which is half as many as other YSHCN.¹⁷ Consistent with our hypothesis, youth with ASD who had all of the components of a medical home were more likely to receive HCTS. Youth with ASD who received family-centered care and those who had effective care coordination were more than twice as likely to receive HCTS than those who did not. It is important to note that nearly all youth had a personal doctor or nurse, effectively reducing the variance of this predictor in logistic regression models.

In this study, the medical home and its components were conceptualized as enabling factors to HCTS receipt. The medical home is a model for the provision of care that aims to provide more comprehensive care than traditional service access. Our results revealed that this holistic approach to care was associated with a higher likelihood of HCTS receipt, an outcome that is highly desired but often not achieved for youth with ASD. It is often true that a child will receive some components of the medical home but not others. This emphasizes the importance of examining the association of each medical home component with HCTS receipt.

Although this study shows the association between a medical home and HCTS receipt, providing adequate HCTS and creating a medical home for youth with ASD can be a difficult endeavor. Physician time, resources for care coordination, reimbursement for medical services, the lack of time to spend with youth with ASD, and the lack of specific knowledge of ASD on the part of the provider (including ASD services and community resources) are all barriers.^{23,26} Educational efforts to increase awareness of the importance of HCTS and the medical home could help compensate for the lack of

specific ASD knowledge because patient- and family-centered care is at the core of both efforts. Health care transition has implications beyond the continuity of care from adolescence to adulthood; health care is described by youth with autism and their parents as a critical and time-consuming part of their lives.²⁶ Although transition planning is encouraged and valued, there is no model of health care transition provision that is widely used in pediatric health care practices. The medical home model could provide the necessary infrastructure in many cases to increase the proportion of youth receiving HCTS.

There are several limitations to this study. First, the survey was completed by parents and is subject to biases, including recall and social desirability. Second, the presence of a medical home is derived from a combination of survey questions, and youth who reported not needing a service and/or component of the medical home were marked as receiving that component. It could be that the general YSHCN population report not needing services and/or components more often than do youth with ASD. This would

result in fewer youth with ASD reporting access to a medical home because they need to access more services than do the general YSHCN population. This same response pattern is used for HCTS, creating the same limitations in its measurement.

A major strength of this study is its replicability because the measurement strategy for both HCTS receipt and the provision of care within a medical home were taken from a highly used source: the CAHMI. Previously, strategies for measurement have differed among studies, making it hard to compare results. However, the CAHMI measurement strategy is easily accessible and popularly used in this field, adding to the base of research that can be compared across disabilities and years. We also used a large, nationally representative data set that is generalizable to the US population of youth with ASD ages 12 to 17 years. The breadth of covariates available for control in adjusted logistic regression models is also comprehensive.

CONCLUSIONS

Youth with ASD are not receiving HCTS at the same rate as their

peers with other special health care needs, but they likely have a greater need for these services than do many other youth. The link we established between receiving care in a medical home and receiving HCTS underscores the need for future research and practice changes to increase the proportion of youth with ASD receiving HCTS. Steps toward increasing provider awareness of ASD; the benefits of a high-quality, comprehensive medical home; and the need for HCTS could greatly help increase the percentage of youth who receive effective HCTS.

ABBREVIATIONS

ASD: autism spectrum disorder
CAHMI: Child and Adolescent Health Measurement Initiative
HCTS: health care transition services
NS-CSHCN: National Survey of Children with Special Health Care Needs
YSHCN: youth with special health care needs

FUNDING: Produced through a generous, private donation to the Life Course Outcomes Research Program. This project was also supported by the Health Resources and Services Administration of the US Department of Health and Human Services (grant UA6MC27364) and title, the Health Care Transitions Research Network for Youth and Young Adults with Autism Spectrum Disorders (grant amount \$900 000). The information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by, the Health Resources and Services Administration, Department of Health and Human Services, or the US Government.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

REFERENCES

1. McPherson M, Arango P, Fox H, et al. A new definition of children with special health care needs. *Pediatrics*. 1998;102(1, pt 1):137–140
2. Gore S, Aseltine RH Jr, Schilling EA. In: Avison WR, McLeod JD, Pescosolido BA, eds. *Mental Health, Social Mirror*. New York, NY: Springer; 2007:219–237
3. Seltzer MM, Shattuck P, Abbeduto L, Greenberg JS. Trajectory of development in adolescents and adults with autism. *Ment Retard Dev Disabil Res Rev*. 2004;10(4):234–247
4. Schall C, Cortijo-Doval E, Targett PS, Wehman P. Applications for youth with autism spectrum disorders. In: Wehman P, ed. *Life Beyond the Classroom: Transition Strategies for Young People With Disabilities*. 4th ed. Baltimore, MD: Paul H. Brookes Publishing Company; 2006:535–575
5. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Arlington, VA: American Psychiatric Publishing; 2013
6. Shattuck PT, Roux AM, Hudson LE, Taylor JL, Maenner MJ, Trani J-F. Services for adults with an autism spectrum disorder. *Can J Psychiatry*. 2012;57(5):284–291
7. Christensen DL, Baio J, Van Naarden Braun K, et al; Centers for Disease Control and Prevention. Prevalence and characteristics of autism spectrum disorder among

- children aged 8 years—autism and developmental disabilities monitoring network, 11 sites, United States, 2012 [published correction appears in *MMWR Morb Mortal Wkly Rep*. 2016;65(15):404]. *MMWR Surveill Summ*. 2016;65(3):1–23
8. Cheak-Zamora NC, Farmer JE, Mayfield WA, et al. Health care transition services for youth with autism spectrum disorders. *Rehabil Psychol*. 2014;59(3):340–348
 9. Roux AM, Shattuck PT, Rast JE, Rava JA, Anderson KA. *National Autism Indicators Report: Transition Into Young Adulthood*. Philadelphia, PA: Life Course Outcomes Research Program Area, A.J. Drexel Autism Institute, Drexel University; 2015
 10. American Academy of Pediatrics; American Academy of Family Physicians; American College of Physicians; American Society of Internal Medicine. A consensus statement on health care transitions for young adults with special health care needs. *Pediatrics*. 2002;110(6, pt 2):1304–1306
 11. Nageswaran S, Parish SL, Rose RA, Grady MD. Do children with developmental disabilities and mental health conditions have greater difficulty using health services than children with physical disorders? *Matern Child Health J*. 2011;15(5):634–641
 12. Tregnago MK, Cheak-Zamora NC. Systematic review of disparities in health care for individuals with autism spectrum disorders in the United States. *Res Autism Spectr Disord*. 2012;6(3):1023–1031
 13. Lotstein DS, McPherson M, Strickland B, Newacheck PW. Transition planning for youth with special health care needs: results from the National Survey of Children with Special Health Care Needs. *Pediatrics*. 2005;115(6):1562–1568
 14. Farmer JE, Clark MJ, Mayfield WA, et al. The relationship between the medical home and unmet needs for children with autism spectrum disorders. *Matern Child Health J*. 2014;18(3):672–680
 15. Kogan MD, Strickland BB, Blumberg SJ, Singh GK, Perrin JM, van Dyck PC. A national profile of the health care experiences and family impact of autism spectrum disorder among children in the United States, 2005–2006. *Pediatrics*. 2008;122(6). Available at: www.pediatrics.org/cgi/content/full/122/6/e1149
 16. Brachlow AE, Ness KK, McPheeters ML, Gurney JG. Comparison of indicators for a primary care medical home between children with autism or asthma and other special health care needs: National Survey of Children's Health. *Arch Pediatr Adolesc Med*. 2007;161(4):399–405
 17. Cheak-Zamora NC, Yang X, Farmer JE, Clark M. Disparities in transition planning for youth with autism spectrum disorder. *Pediatrics*. 2013;131(3):447–454
 18. Thomas S, Hovinga ME, Rai D, Lee BK. Brief report: prevalence of co-occurring epilepsy and autism spectrum disorder: the U.S. National Survey of Children's Health 2011–2012. *J Autism Dev Disord*. 2017;47(1):224–229
 19. Lever AG, Geurts HM. Psychiatric co-occurring symptoms and disorders in young, middle-aged, and older adults with autism spectrum disorder. *J Autism Dev Disord*. 2016;46(6):1916–1930
 20. Andersen RM, Davidson PL. Improving access to care in America. In: Andersen RM, Rice TH, Kominski GF, eds. *Changing the US Health Care System: Key Issues in Health Services Policy and Management*. 3rd ed. San Francisco, CA: Jossey-Bass; 2007:3–31
 21. Centers for Disease Control and Prevention; National Center for Health Statistics. Frequently asked questions. 2009–2010 national survey of CSHCN. Available at: <https://www.cdc.gov/nchs/data/slaits/nscshcnfaqs2009.pdf>. Accessed February 17, 2018
 22. Child and Adolescent Health Measurement Initiative. 2009–2010 NS-CSHCN indicator and outcome variables SAS codebook, version 1. 2012. Data Resource Center for Child and Adolescent Health. Available at: http://www.childhealthdata.org/docs/drc/200910-cshcn-sas-codebook_final_011713.pdf. Accessed February 17, 2018
 23. Hyman SL, Johnson JK. Autism and pediatric practice: toward a medical home. *J Autism Dev Disord*. 2012;42(6):1156–1164
 24. Benedict RE. Quality medical homes: meeting children's needs for therapeutic and supportive services. *Pediatrics*. 2008;121(1). Available at: www.pediatrics.org/cgi/content/full/121/1/e127
 25. Kane DJ, Kasehagen L, Punyko J, Carle AC, Penziner A, Thorson S. What factors are associated with state performance on provision of transition services to CSHCN? *Pediatrics*. 2009;124(suppl 4):S375–S383
 26. Cheak-Zamora NC, Teti M. “You think it's hard now . . . It gets much harder for our children”: youth with autism and their caregiver's perspectives of health care transition services. *Autism*. 2015;19(8):992–1001

The Medical Home and Health Care Transition for Youth With Autism
Jessica E. Rast, Paul T. Shattuck, Anne M. Roux, Kristy A. Anderson and Alice Kuo
Pediatrics 2018;141;S328
DOI: 10.1542/peds.2016-4300J

Updated Information & Services	including high resolution figures, can be found at: http://pediatrics.aappublications.org/content/141/Supplement_4/S328
References	This article cites 17 articles, 5 of which you can access for free at: http://pediatrics.aappublications.org/content/141/Supplement_4/S328#BIBL
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.aappublications.org/site/misc/Permissions.xhtml
Reprints	Information about ordering reprints can be found online: http://www.aappublications.org/site/misc/reprints.xhtml

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

The Medical Home and Health Care Transition for Youth With Autism

Jessica E. Rast, Paul T. Shattuck, Anne M. Roux, Kristy A. Anderson and Alice Kuo

Pediatrics 2018;141;S328

DOI: 10.1542/peds.2016-4300J

The online version of this article, along with updated information and services, is located on the World Wide Web at:

http://pediatrics.aappublications.org/content/141/Supplement_4/S328

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2018 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

