

Adolescent Pregnancy among Females With and Without Disability: An Analysis of South Carolina Medicaid Data

A Report by the South Carolina Interagency Office of Disability and Health

Introduction

Teen pregnancy is an important public policy issue because it is associated with adverse outcomes such as school dropout. The resulting effects are shown in the national employment and poverty rates.¹ Despite declining rates, teenage pregnancy remains a significant problem in the United States. According to the National Campaign to Prevent Teen Pregnancy, the pregnancy rate among 15 through 19 year old females in the United States is approximately 70 per 1,000 (depending on the data source).² The birth rate among 15 through 19 was 41.5 per 1,000 in 2008. In South Carolina, rates of teen pregnancy and teen birth are substantially above the national average. In 2005, the pregnancy rate among 15 to 19 year olds in South Carolina was 79 per 1,000, compared to 70 per 1,000 for the United States.³ And in 2008, the birth rate among 15 to 19 year old females in South Carolina was 53 per 1,000, compared to 42 per 1,000 for the United States as a whole.³

It is not known if adolescent females with disabilities are at increased risk of pregnancy. For example, evidence suggests that women and girls with disabilities are significantly more likely to be victims of sexual violence and exploitation.⁴ At the same time, other factors may reduce the risk of pregnancy among teens with a disability. For example, if young people with disabilities are less socially integrated, they may be less likely to date and initiate sexual activity.⁹

Methods

We undertook an analysis of rates of live births, fetal deaths, and other pregnancy measures in 13 through 18 year old females enrolled in the South Carolina Medicaid program in 2004 and 2008. We identified four groups of disabilities on the basis of International Classification of Diseases version 9 (ICD-9) codes:

- Autism Spectrum Disorder – ICD-9 code 299
- Cerebral Palsy – ICD-9 code 343
- Mild Intellectual Disability – ICD-9 code 317 or 319
- Moderate-Severe Intellectual Disability – ICD-9 code 318

¹ *Policy Briefing: Preventing Teen Pregnancy Is Critical to School Completion.* The National Campaign to Prevent Teen & Unplanned Pregnancy, July 2010. Web. <<http://www.moapp.org/Documents/events/2010/PolicyBrief-SchoolCompletion.pdf>>.

² *Teen Pregnancy Rates in the United States, 1988-2006.* The National Campaign to Prevent Teen & Unplanned Pregnancy, Jan. 2010. Web. <http://www.thenationalcampaign.org/resources/pdf/Briefly_TeenPregRates_1988-2006.pdf>.

³ *National Birth Rates for Teens, Aged 15-19.* The National Campaign to Prevent Teen and Unplanned Pregnancy. Web. 09 Feb. 2011. <<http://www.thenationalcampaign.org/national-data/NBR-teens-15-19.aspx>>.

⁴ Rosen, D.B. *Violence and Exploitation against Women and Girls with Disability.* Ann NY Acad Science, 2006; 1087:170-7.

⁵ Murphy N. *Sexuality in children and adolescents with disabilities.* Dev Med Child Neurol. 2005;47:640-4.

A girl was considered a member of a specific disability group if she received a diagnosis of that condition within the calendar year. Adolescents with more than one disability were counted in each category, but an “any disability” category was also created in which there was no double counting. Adolescents without one of the diagnoses were placed in the “no disability” category. To be eligible on the basis of age, the girl had to be between the ages of 13 and 18 at some point during the calendar year.

Live births and fetal deaths were identified using South Carolina vital records reports for births and fetal deaths. Additional pregnancies not resulting in live birth or fetal death were identified using the following information from the Medicaid billing data:

- ICD-9 codes 630 through 679 (complications of pregnancy),
- ICD-9 code or v22 (prenatal care for low risk pregnancy) or v23 (prenatal care for high risk pregnancy), or
- DRG codes 370-375 (delivery of an infant).

We analyzed the rate of each outcome (live birth, fetal death, and other pregnancy) by disability type and age (using the year minus year of birth to calculate age). Analyses were conducted separately for 2004 and 2008.

Results

The cell sizes for specific disability types were small and therefore not very informative. Similarly, cell sizes for fetal deaths were very low. However, the findings for “any disability” and for “no disability” and the outcomes of live birth and other pregnancy are informative. For both adolescents with and without one of the disabilities, rates of live birth and pregnancy increased with age. For each year, age specific live birth and other pregnancy rates were substantially lower for adolescents with a disability than for those without a disability. For example, in 2008 the live birth rate for 18 year old females with a disability was 33.7 per 1,000, versus 137.3 per 1,000 in those without a disability. Another key finding is that for both 2004 and 2008, the rate of “other pregnancy” identified using ICD-9 and DRG codes was almost as high as the rate of documented live births.

We summed the total number of live births and “other pregnancies” for adolescents with any disability and for those without a disability, by year. We then compared the proportions with a birth or other pregnancy using the chi square test. In each case, the adolescents without a disability were significantly more likely to have a birth or pregnancy than those with a disability ($p < .0001$ for each comparison).

⁶Casteel, C., S.L. Martin, J.B. Smith, K.K. Gurka, and L.L. Kupper. *National Study of Physical and Sexual Assault among Women with Disabilities*. *Inj Prev.*, 2008; 14:87-90.

⁷Martin, S.L., N. Ray, D. Sotres-Alvarez, L.L. Kupper, K.E. Moracco, P.A. Dickens, D. Scandlin, and Z. Gizlice. *Physical and Sexual Assault of Women with Disabilities*. *Violence Against Women*. 2006; 12:823-37. Lin LP, Yen CF, Kuo FY, Wu JL, Lin JD. *Sexual assault of people with disabilities: results of a 2002-2007 national report in Taiwan*. *Res Dev Disabil*. 2009; 30:969-75.

⁸Alriksson-Schmidt, A.I., B.S. Armour, and J.K. Thibadeau. *Are Adolescent Girls with a Physical Disability at Increased Risk for Sexual Violence?* *J Sch Health*. 2010; 80:361-7

Live Birth, 2004

Age	Autism Spectrum	Rate per 1,000	Cerebral Palsy	Rate per 1,000	Mild Intellectual Disability	Rate per 1,000	Moderate-Severe Intellectual Disability	Rate per 1,000	Any Disability	Rate per 1,000	No Disability	Rate per 1,000
13 years	0/28	0	0/68	0	0/139	0	0/145	0	0/280	0	12/12232	1.0
14 years	0/24	0	0/56	0	0/158	0	0/116	0	0/269	0	41/11975	3.4
15 years	1/19	52.6	0/44	0	5/176	28.4	0/120	0	6/285	21.1	185/11899	15.5
16 years	0/15	0	1/44	22.7	3/168	17.9	0/98	0	4/251	15.9	496/11627	42.7
17 years	0/25	0	0/38	0	8/179	44.7	0/112	0	8/275	29.1	947/11853	79.9
18 years	0/8	0	0/37	0	10/148	67.6	0/66	0	10/203	49.3	1597/12920	123.6
All ages	1/119	8.4	1/287	3.5	26/968	26.9	0/657	0	28/1563	17.9	3278/72506	45.2

Fetal Death, 2004

Age	Autism Spectrum	Rate per 1,000	Cerebral Palsy	Rate per 1,000	Mild Intellectual Disability	Rate per 1,000	Moderate-Severe Intellectual Disability	Rate per 1,000	Any Disability	Rate per 1,000	No Disability	Rate per 1,000
13 years	0/28	0	0/68	0	0/139	0	0/145	0	0/280	0	0/12232	0
14 years	0/24	0	0/56	0	0/158	0	0/116	0	0/269	0	0/11975	0
15 years	0/19	0	0/44	0	0/176	0	0/120	0	0/285	0	1/11899	0.1
16 years	0/15	0	0/44	0	1/168	6.0	0/98	0	1/251	4.0	7/11627	0.6
17 years	0/25	0	0/38	0	0/179	0	0/112	0	0/275	0	6/11853	0.5
18 years	0/8	0	0/37	0	0/148	0	0/66	0	0/203	0	18/12920	1.4
All ages	0/119	0	0/287	0	1/968	1.0	0/657	0	1/1563	0.6	32/72506	0.4

Other Pregnancy, 2004

Age	Autism Spectrum	Rate per 1,000	Cerebral Palsy	Rate per 1,000	Mild Intellectual Disability	Rate per 1,000	Moderate-Severe Intellectual Disability	Rate per 1,000	Any Disability	Rate per 1,000	No Disability	Rate per 1,000
13 years	0/28	0	0/68	0	0/139	0	0/145	0	0/280	0	29/12232	2.4
14 years	0/24	0	0/56	0	2/158	12.7	1/116	8.6	3/269	11.2	93/11975	7.8
15 years	0/19	0	0/44	0	0/176	0	2/120	16.7	2/285	7.0	244/11899	20.5
16 years	0/15	0	0/44	0	3/168	17.9	2/98	20.4	4/251	15.9	507/11627	43.6
17 years	0/25	0	1/38	26.3	5/179	27.9	3/112	26.8	8/275	29.1	869/11853	73.3
18 years	0/8	0	1/37	27.0	5/148	33.8	0/66	0	6/203	29.6	1305/12920	101.0
All ages	0/119	0	2/287	7.0	15/968	15.5	8/657	12.2	23/1563	14.7	3047/72506	42.0

Live Birth, 2008

Age	Autism Spectrum	Rate per 1,000	Cerebral Palsy	Rate per 1,000	Mild Intellectual Disability	Rate per 1,000	Moderate-Severe Intellectual Disability	Rate per 1,000	Any Disability	Rate per 1,000	No Disability	Rate per 1,000
13 years	0/44	0	0/45	0	0/79	0	0/118	0	0/205	0	6/9682	0.6
14 years	0/34	0	0/45	0	0/79	0	0/121	0	0/204	0	35/9627	3.6
15 years	0/24	0	0/40	0	0/74	0	0/94	0	0/177	0	167/10234	16.3
16 years	0/32	0	0/42	0	0/88	0	2/107	18.7	2/192	10.4	483/10881	44.4
17 years	0/31	0	1/45	22.2	0/80	0	0/100	0	1/185	5.4	974/11854	82.2
18 years	1/24	41.7	0/40	0	4/91	44.0	1/86	11.6	6/178	33.7	1756/12791	137.3
All ages	1/189	5.3	1/257	3.9	4/491	8.1	3/626	4.8	9/1141	7.9	3421/65069	52.6

Fetal Death, 2008

Age	Autism Spectrum	Rate per 1,000	Cerebral Palsy	Rate per 1,000	Mild Intellectual Disability	Rate per 1,000	Moderate-Severe Intellectual Disability	Rate per 1,000	Any Disability	Rate per 1,000	No Disability	Rate per 1,000
13 years	0/44	0	0/45	0	0/79	0	0/118	0	0/205	0	0/9682	0
14 years	0/34	0	0/45	0	0/79	0	0/121	0	0/204	0	0/9627	0
15 years	0/24	0	0/40	0	0/74	0	0/94	0	0/177	0	1/10234	0.1
16 years	0/32	0	0/42	0	0/88	0	0/107	0	0/192	0	4/10881	0.4
17 years	0/31	0	0/45	0	0/80	0	0/100	0	0/185	0	12/11854	1.0
18 years	0/24	0	0/40	0	0/91	0	0/86	0	0/178	0	22/12791	1.7
All ages	0/189	0	0/257	0	0/491	0	0/626	0	0/1141	0	39/65069	0.6

Pregnancy, 2008

Age	Autism Spectrum	Rate per 1,000	Cerebral Palsy	Rate per 1,000	Mild Intellectual Disability	Rate per 1,000	Moderate-Severe Intellectual Disability	Rate per 1,000	Any Disability	Rate per 1,000	No Disability	Rate per 1,000
13 years	0/44	0	1/45	22.2	0/79	0	1/118	8.5	1/205	4.9	12/9682	1.2
14 years	0/34	0	0/45	0	0/79	0	2/121	16.5	2/204	9.8	64/9627	6.6
15 years	0/24	0	0/40	0	2/74	27.0	0/94	0	2/177	11.3	163/10234	15.9
16 years	0/32	31.3	0/42	0	2/88	22.7	0/107	0	1/192	10.4	399/10881	36.7
17 years	0/31	0	0/45	0	3/80	37.5	0/100	0	4/185	16.2	768/11854	64.8
18 years	1/24	0	0/40	0	2/91	22.0	0/86	0	2/178	11.2	1242/12791	97.1
All ages	1/189	5.3	1/257	3.9	9/491	18.3	3/626	4.8	13/1141	11.4	2648/65069	40.7

Conclusion

As expected, live birth and “other pregnancy” rates appear to increase by age for adolescent females with and without the selected disabilities. We found that live births and other documented pregnancies were in fact substantially less common in adolescents with a disability (intellectual disability, cerebral palsy, or autism spectrum disorder) than in those without one of these disabilities. Therefore, our analyses would seem to indicate that other factors (such as less social integration, greater parental supervision, etc.) may offset the factors (such as increased risk of sexual violence and victimization) that could result in risk for adolescent pregnancy. Another possibility is that there are underlying differences between the two groups that contribute to the differences noted. For example, children with significant disabilities can qualify for South Carolina Medicaid coverage based on their disability status, with relaxed income limits.¹¹ We did not include an assessment of Medicaid coverage type in our analyses, but it is possible that there are socioeconomic differences between the adolescents we identified with disabilities and the comparison adolescents without a disability.

While rates of live birth and other pregnancy were lower in adolescents with a disability, there were still a significant number of disabled adolescents who had a documented live birth or other pregnancy. Additional analyses investigating predictors of pregnancy in this population could be helpful for the development and targeting of appropriate prevention programs.

⁹Wiegerink D.J., Roebroek M.E., Donkeryoort M., Cohen-Kettenis P.T., Stam H.J., Transition Research Group South West Netherlands. *Social, intimate and sexual relationships of adolescents with cerebral palsy compared with able-bodied age-mates*. J Rehabil Med. 2008; 40:112-8.

¹⁰Tissot C. *Establishing a sexual identity. Case studies of learners with autism and learning difficulties*. Autism. 2009; 13:551-66.

¹¹"Disabled Children." South Carolina Department of Health and Human Services. Web. 09 Feb. 2011.

<<http://www.dhhs.state.sc.us/InsideDHHS/Bureaus/EligibilityPolicyAndOversight/TEFRA - Katy Beckett.asp>>.

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