California's Most Vulnerable Parents

Culmulative Teen Birth Rates among Girls in Foster Care at Age 17

Vol 1-2. Cumulative Teen Birth Rates among Girls in Foster Care at Age 17

This analysis generates population-level estimates of the incidence of first and repeat births among girls in foster care. Using the full population of girls in foster care at age 17 between 2003 and 2007, we computed the cumulative percentage and characteristics of those who had a first or repeat birth by different ages. Findings document that more than 1 in 4 girls in foster care at age 17 gave birth during their teens; among girls with a first birth before age 18, nearly 40% went on to have a second teen birth.

INTRODUCTION

Teen birth rates in the United States have dropped dramatically and steadily during the last two decades, from 61.8 per 1,000 girls aged 15–19 years in 1991 to 34.2 per 1,000 in 2010.[1] Since 2007, decreases in the teen birth rate have accelerated and preliminary data suggest that between 2010 and 2011, the rate was further reduced by 8%.[2] Even in 2011, however, roughly 1 in 12 births was to a mother between the ages of 15 and 19. Furthermore, data indicate that roughly 18% of all births to teen mothers are repeat births.[2]

Despite a declining teen birth rate, the topic continues to garner significant attention and resources because teen births are correlated with a range of poor outcomes for both young mothers and children.[3-5] Although rigorous research increasingly points to economic disadvantage as a cause as much as a consequence of teen motherhood,[6-10] regardless of the direction, consequences are profound for children.[11] Pregnant teens often receive inadequate prenatal care and infants face a heightened risk of adverse birth outcomes, including low birth weight, preterm delivery, and infant mortality.[12,13] Children of teen mothers exhibit poorer cognitive and behavioral outcomes,[14] as well as significantly higher rates of abuse and neglect.[15,16] Longer term effects of being born to a teen mother include an increased likelihood of incarceration, adolescent pregnancy, and homelessness.[17,18]

Research suggests that young women in foster care are at high risk of early sexual debut, pregnancy, and giving birth during their teenage years and shortly thereafter.[19-21] This heightened risk aligns with literature documenting the socioeconomically disadvantaged backgrounds common among teens who give birth,[8] as well as national data that identifies a heightened rate of teen births among girls not residing with biological parents.[22] Children who are in foster care are overwhelmingly from poor families. Yet, there have been limited data available with which to calculate the rates of first and repeat births among girls placed in foster care, or to examine differences in rates based on foster care placement experiences. Foster care case management systems tend to focus on a narrow set of mandated fields that have the most immediate relevance to the greatest number of cases. As such, information concerning pregnancies and births is often not entered, even though these data may be of critical importance to services and case planning for transition-age youth in foster care. Pregnancy and birth data are also relevant to broader program and policy development, particularly given the passage of the Fostering Connection to Success and Increasing Adoption Act of 2008,[23] which allows states to extend foster care to non-minor dependents. Most jurisdictions have limited data to assess how this legislation may change the nature of needed services and supports with what is expected to be an increase in the number of parenting youth in the foster care system.

Research suggests that young women in foster care are at high risk of early sexual debut, pregnancy, and giving birth during their teenage years and shortly thereafter.

OBJECTIVE

The current limitations of child protective service data for tracking births necessitate the use of alternative data sources. In this study, we use CPS records matched to birth records to produce a population-level, longitudinal examination of the incidence of first and repeat births among girls in foster care at age 17. Our objective was to generate new epidemiological data that would allow us to characterize the rates of first and repeat births for a population of girls in foster care.

METHODS

DATA SOURCES

This analysis was based on a dataset constructed by linking CPS records to vital birth records for the state of California. Child protection records were available through a university–agency data collaboration with the California Department of Social Services; vital birth records were obtained from the California Department of Public Health. These two data sources were linked using probabilistic matching software. Potential record pairs were generated based on a combination of personal identifiers common to both files. A clerical review was conducted to establish score thresholds for assigning each record pair as either a match or non-match. All uncertain pairs falling between these two score thresholds were manually reviewed and assigned a match status. The linkage of CPS and birth records for this project was approved by both state and university committees for the protection of human subjects and was reviewed and endorsed by California's Vital Statistics Advisory Committee.

After records were matched, we created a dataset consisting of the full population of girls who were age 17 and in a child welfare-supervised foster care placement between 2003 and 2007. By aggregating data for years with uncensored birth observations through the conclusion of the teen years (i.e., births before age 20), we obtained an adequately sized base population from which we could examine correlates of first and repeat births. Additionally, through the inclusion of all girls who were 17 and in foster care during this period, we avoided any potential biases that may operate via unrepresentative point-in-time or exit cohort samples.[25]

ANALYSIS

Using these aggregated data, we calculated descriptive statistics for the full population of 17-year-old girls in foster care during this period and used birth record information to compute the cumulative rate of first births before age 18 and age 20. We report covariate differences in first-birth rates as crude risk ratios (RRs) bounded by 95% confidence intervals (CI) with accompanying p-values. We chose to focus on these age cutoffs because births before age 18 provide an estimate of how many girls gave birth before transitioning into adulthood (and, at least historically, out of the foster care system). The cumulative rate of first births occurring before age 20 reflects the percentage of this foster youth population who had given birth during their teens. We additionally computed rates of repeat teen births for girls who had a first birth before age 18 or 19. We excluded from our repeat teen birth analysis girls who had a first birth only after their 19th birthday as, almost by definition, a repeat teen birth could not have occurred.

VARIABLES

All covariates were coded based on information derived from administrative CPS records. Youth were coded into one of four mutually exclusive racial/ethnic groups based on primary race and a Hispanic ethnicity indicator (White, Black, Latina/Hispanic, other/missing). The "other/missing" group included youth who were Asian, Native American, Pacific Islander, or for whom race/ethnicity information was missing. The small number of youth in each of these subgroups, as well as consistently low rates of birth, prevented further stratifications. Removal reason was coded based on the maltreatment type corresponding to the placement episode at age 17 (neglect, physical abuse, sexual abuse, other/missing). Episode length was coded based on the length of the placement episode (< 12 months, 12–35 months, 36-59 months, ≥ 60 months). Placement count captured the number of placements during the episode (1 placement, 2–3 placements, 4+ placements). Finally, we

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VARIABLES *(continued)*

also examined the last placement type of the episode (kinship foster home, non-kin foster home, congregate care, guardian/other) and the final exit from this episode (emancipation, reunification, adoption/guardianship, runaway, other). The "other" category for final exit type was defined as discharges to other institutional settings (e.g., hospitalization, incarceration).

It should be noted that although we report p-values in our unadjusted examinations of covariates, the large size of our population meant that even modest differences emerged as significant. Therefore, we focus our discussions on those findings in which the magnitude of group differences was notable and substantively meaningful. We examined placement-related covariates in an effort to identify correlates of first and repeat births before ages 18 and 20. There were undoubtedly strong selection effects that we were unable to address in this descriptive study. As such, it would be inappropriate to infer any causal relationships between covariates and birth rates.

RESULTS

FIRST BIRTHS BY AGE

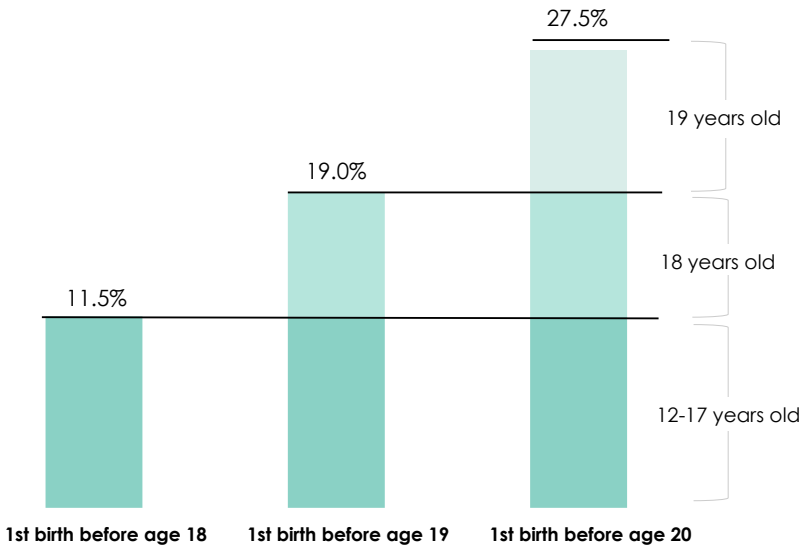
Figure 1 depicts the cumulative percentage of girls who were age 17 and in foster care between 2003 and 2007 and had a first birth before age 18, 19, and 20. Of the 6,749 girls in our population, a total of 11.5% (n = 777) had given birth before age 18.

More than 1 in 4 girls in foster care at age 17 had given birth at least once before age 20.

The cumulative percentage of girls with a first birth before age 19 was 19.0% (n = 1,281). By the end of the teen years, 27.5% (n = 1,856)—or more than 1 in 4 girls in foster care at age 17—had given birth at least once. Although not shown, the cumulative percentage of girls who had given birth before age 21 was 34.3%.

FIGURE 1

Cumulative Percentage of Girls in a Los Angeles County Foster Care Placement at Age 17 Who Had a First Birth as a Teen, 2003-2007



FIRST BIRTHS

Table 1 presents the cumulative percentages of first teen births before ages 18 and 20 by race/ethnicity, as well as foster care placement covariates. Rates of first births were highest among Latina youth at both age cutoffs. The birth rate among Latinas who were in foster care at age 17 (15.5%) was more than twice the rate of their White counterparts (6.4%) before age 18 (RR = 2.42; 95% CI = 1.84–3.16). Although somewhat attenuated, the birth rate for Latinas remained significantly higher than the rate for White teens when all first births before age 20 were examined (RR = 1.74; 95% CI = 1.50–2.01). Among Black teens in our population, 9.6% gave birth before age 18; the rate was 24.4% when all births before age 20 were counted.

Rates of first births were highest among Latina youth.

Birth rates before age 18 varied based on the most recent removal reason. The birth rates of youth removed for neglect (12.5%) were significantly higher than those removed for physical abuse (9.7%) and other/missing maltreatment information (9.8%), but not statistically different than the rate associated with a removal for sexual abuse (10.5%). By age 20, birth rate differences only emerged between neglect compared to other/missing maltreatment.

Across both age thresholds, birth rates were lower among those girls whose episodes had lasted 5 years or longer (≥ 60 months) relative to youth with shorter episodes. It is also worth noting that a continuous foster care placement episode of 60 months or more was the most frequently observed episode length for girls in our population (51.4%). Among girls who had experienced four or more placements during their episode, first birth rates were significantly higher than the rates observed for girls who had been in only 1 to 3 placements. Birth rates before ages 18 and 20 were highest among the 14.9% of youth whose last placement during the episode was in a congregate care setting (20.7% and 37.5%, respectively), whereas percentages were notably lower among youth in guardian/other placements (4.9% and 15.6%, respectively). No significant birth rate differences at either age cutoff emerged for youth in non-kinship foster homes compared to those in kinship care.

Overall, 70.7% of girls turned age 18 while still in care and therefore exited via via emancipation (data were pre-AB12). Another 15.1% reunified, 4.5% exited to adoption or guardianship, 5.0% were coded as runaways, and 4.8% had exits coded as "other" (e.g., incarcerated, hospitalized). Before age 18 and relative to youth who emancipated, a significantly lower rate of teen birth was observed among those who exited to adoption or guardianship (RR = 0.53; 95% CI = 0.34–0.84). When all births before age 20 were considered, first birth rates were 26% higher among girls who exited to reunification (RR = 1.26; 95% CI = 1.14–1.39) and 28% higher among those who had run away (RR = 1.28; 95% CI = 1.10–1.50) compared to the birth rate of those who had emancipated. Youth who exited to adoption or guardianship maintained a significantly lower teen birth rate (RR = 0.64; 95% CI = 0.50–0.82).

REPEAT BIRTHS

Table 2 features youth who had a first teen birth before age 18 or 19 and reports the rates of repeat teen births by covariates and age at first birth. As previously reported, 1,856 (27.5%) girls in foster care at age 17 gave birth for the first time before age 20. Yet, many of these youth first gave birth at age 19 and therefore, almost by definition, could not have a repeat teen birth. Therefore, in contrast to national statistics concerning repeat teen births,[26] we restricted our examination of repeat births to girls whose first birth occurred before ages 18 or 19.

Among girls in foster care who had a first birth before age 18, 38.7% had a repeat teen birth.

Not surprisingly, the overall rate of repeat births was higher among girls with a first birth before age 18 (38.7%) than for the larger population of youth who had a first birth at any point before age 19 (29.9%). Among girls with a first birth before age 18, no statistically significant variations in repeat teen birth rates emerged. When our examination was extended to include all youth with a first birth before age 19, only a single covariate emerged with significantly disparate rates of repeat teen births. The rate of repeat births observed for girls whose last placement was in either a non-kin foster home or a congregate care setting was roughly 30% greater than the rate among those placed with kin (non-kin foster home: RR = 1.32; 95% CI = 1.07–1.62; congregate care: RR = 1.31; 95% CI 1.04–1.66).

TABLE 1

Descriptive Characteristics of Girls in a Los Angeles County Foster Care Placement at Age 17: First Birth Rates Before Age 18 and Before Age 20 (per 100), Crude Risk Ratios, and 95% Confidence Intervals, 2003–2007

	In Care *age 17*		**First Birth Before Age 18** *(vs. no birth before age 18)*				**First Birth Before Age 20** *(vs. no birth before age 20)*			
	2003-2007		births	rate	crude risk ratios		births	rate	crude risk ratios	
	N	col %	*n*	per 100	RR	(95% CI)	*n*	per 100	RR	(95% CI)
Total	6,749	100.0%	777	11.5	--	--	1,856	27.5	--	--
Race/Ethnicity										
White	856	12.7%	55	6.4	Ref.	--	167	19.5	Ref.	--
Black	3,002	44.5%	289	9.6	1.50**	(1.13, 1.98)	733	24.4	1.25**	(1.08, 1.45)
Latina	2,726	40.4%	423	15.5	2.42***	(1.84, 3.16)	925	33.9	1.74***	(1.50, 2.01)
Other/Missing	165	2.4%	10	6.1	0.87	(0.44, 1.72)	31	18.8	0.96	(0.67, 1.36)
Removal Reason										
Neglect	4,200	62.2%	525	12.5	Ref.	--	1,196	28.5	Ref.	--
Physical Abuse	805	11.9%	78	9.7	0.78*	(0.62, 0.97)	205	25.5	0.89	(0.79, 1.02)
Sexual Abuse	446	6.6%	47	10.5	0.84	(0.64, 1.12)	134	30.0	1.06	(0.91, 1.23)
Other/Missing	1,298	19.2%	127	9.8	0.78**	(0.65, 0.94)	321	24.7	0.87**	(0.78, 0.97)
Episode Length										
≥ 60 months	3,414	51.4%	287	8.4	Ref.	--	787	23.1	Ref.	--
36-59 months	975	14.7%	138	14.2	1.68***	(1.39, 2.04)	291	29.9	1.29***	(1.16, 1.45)
12-35 months	1,450	21.8%	231	15.9	1.90***	(1.61, 2.23)	492	33.9	1.47***	(1.34, 1.62)
< 12 months	804	12.1%	113	14.1	1.67***	(1.36, 2.05)	267	33.2	1.44***	(1.28, 1.62)
Placement Count										
1 placement	1,563	23.2%	146	9.3	Ref.	--	366	23.4	Ref.	--
2-3 placements	2,085	30.9%	194	9.3	1.00	(0.81, 1.22)	504	24.2	1.03	(0.92, 1.16)
4+ placements	3,101	46.0%	437	14.1	1.51***	(1.26, 1.80)	986	31.8	1.36***	(1.22, 1.51)
Last Placement Type										
Kinship	2,286	33.9%	260	11.4	Ref.	--	619	27.1	Ref.	--
Non-kin	2,431	36.0%	269	11.1	0.97	(0.83, 1.14)	714	29.4	1.08	(0.99, 1.19)
Congregate Care	942	14.0%	195	20.7	1.82***	(1.54, 2.16)	353	37.5	1.38***	(1.24, 1.54)
Guardian/Other	659	16.2%	53	4.9	0.43***	(0.32, 0.57)	170	15.6	0.58***	(0.49, 0.67)
Final Exit										
Emancipation	4,772	70.7%	540	11.3	Ref.	--	1,270	26.6	Ref.	--
Reunification	1,018	15.1%	138	13.6	1.20*	(1.01, 1.43)	341	33.5	1.26***	(1.14, 1.39)
Adoption/Guard.	300	4.5%	18	6.0	0.53**	(0.34, 0.84)	51	17.0	0.64**	(0.50, 0.82)
Runaway	334	5.0%	49	14.7	1.30	(0.99, 1.70)	114	34.1	1.28**	(1.10, 1.50)
Other	325	4.8%	32	9.9	0.87	(0.62, 1.22)	80	24.6	0.92	(0.76, 1.12)

Notes: Summed counts may not equal column totals due to missing values for some variables.
Ref = reference group; RR = risk ratio; CI = confidence interval; Guard = guardianship. *p < .05; **p < .01; ***p < .001

TABLE 2

Repeat Birth Rates (per 100 first births) by Age at First Teen Birth Among Girls in a Los Angeles County Foster Care Placement at Age 17 in Los Angeles, 2003–2007

	Repeat Teen Birth *(first birth before age 18; N=777)*				**Repeat Teen Birth** *(first birth before age 19, N=1,281)*			
	repeat births		crude risk ratios		repeat births		crude risk ratios	
	n	rate per 100	RR	(95% CI)	*n*	rate per 100	RR	(95% CI)
Total	301	38.7	--	--	383	29.9	--	--
Race/Ethnicity								
White	19	34.6	Ref.	--	25	23.4	Ref.	--
Black	102	35.3	1.02	(0.69, 1.52)	139	27.8	1.19	(0.82, 1.72)
Latina	176	41.6	1.20	(0.82, 1.76)	212	32.6	1.39	(0.97, 2.00)
Removal Reason								
Neglect	198	37.7	Ref.	--	252	29.7	Ref.	--
Physical Abuse	36	46.2	1.22	(0.94, 1.59)	47	36.7	1.23	(0.96, 1.59)
Sexual Abuse	19	40.4	1.07	(0.74, 1.54)	25	28.4	0.96	(0.68, 1.35)
Other/Missing	48	37.8	1.00	(0.78, 1.29)	59	27.2	0.91	(0.72, 1.16)
Episode Length								
≥ 60 months	107	37.3	Ref.	--	141	28.1	Ref.	--
36-59 months	58	42.0	1.13	(0.86, 1.45)	71	33.2	1.18	(0.93, 1.50)
12-35 months	89	38.5	1.03	(0.83, 1.29)	105	29.8	1.06	(0.86, 1.31)
< 12 months	47	41.6	1.12	(0.88, 1.44)	65	32.2	1.15	(0.89, 1.46)
Placement Count								
1 placement	52	35.6	Ref.	--	72	28.0	Ref.	--
2-3 placements	78	40.2	1.13	(0.86, 1.49)	95	28.5	1.01	(0.79, 1.32)
4+ placements	171	39.1	1.10	(0.86, 1.41)	216	31.3	1.12	(0.89, 1.40)
Last Placement Type								
Kinship	93	35.8	Ref.	--	109	25.5	Ref.	--
Non-kin	113	42.0	1.17	(0.94, 1.46)	160	33.6	1.32**	(1.07, 1.62)
Congregate Care	78	40.0	1.12	(0.88, 1.42))	91	33.5	1.31*	(1.04, 1.66)
Guardian/Other	17	32.1	0.90	(0.59, 1.37)	23	21.9	0.86	(0.58, 1.28)
Final Exit								
Emancipation	209	38.7	Ref.	--	262	29.9	Ref.	--
Reunification	52	37.7	0.97	(0.77, 1.23)	66	27.5	0.92	(0.73, 1.15)
Runaway	17	34.7	0.90	(0.60, 1.34)	25	31.7	1.06	(0.75, 1.48)
Other	17	53.1	1.37	(0.97, 1.93)	22	38.6	1.29	(0.92, 1.82)

Notes: Summed counts may not equal column totals due to missing values for some variables.
Ref = reference group; RR = risk ratio; CI = confidence interval.
Categories were suppressed from findings due to small cell sizes and unstable estimates: (1) other/missing from race/ethnicity; and (2) adoption/guardianship from final exit. *p < .05; **p < .01; ***p < .001

DISCUSSION

SUMMARY

In this study, we developed population-level, longitudinal estimates of first and repeat births among girls in foster care at age 17 in Los Angeles County. Using CPS records linked to birth records, we identified the full population of girls in foster care at age 17 between 2003 and 2007. We used this population of girls to characterize variations in the rates of first and repeat births based on race/ethnicity, placement-related covariates, and age at first birth. Data from these analyses indicate that in Los Angeles County, more than 1 in 4 girls in foster care at age 17 gave birth as a teen. Among girls with a first teen birth before age 18, more than 1 in 3 gave birth to a second child before age 20.

Among girls with a first teen birth before age 18, more than 1 in 3 gave birth to a second child before age 20.

CHARACTERISTIC BIRTH RATE DIFFERENCES

Significant variations in teen birth rates emerged across several covariates. Rates of first births by race/ethnicity directionally aligned with general population state and national statistics: both Black and Latina youth had significantly heightened rates of first births relative to White youth in foster care. Youth removed because of physical abuse had lower first birth rates before age 18 than youth removed for reasons of neglect, yet rates were statistically equivalent when all births before age 20 were considered. This finding suggests that the relationship between removal type and the birth rate observed before age 18 may be due to a more general designation of pregnant or already parenting youth entering foster care as neglected. It is also important to note that our coding of removal type did not capture lifetime exposure to various forms of reported or substantiated maltreatment. Rather, it merely reflected the most proximate maltreatment type for the episode in which we identified 17-years-olds who were in foster care.

Data from this analysis documented a relationship between the number of placements and rates of first births: the highest birth rates were observed among youth who had four or more placements during the observed foster care episode – and nearly half of our population fell in this group (46.0%). Although this finding is consistent with research linking placement instability to various behavioral problems and adverse outcomes,[27,28] it is unclear whether our finding is: (1) because of placement moves that occurred as a result of pregnancy or a birth, (2) a reflection of high-risk behaviors associated with both teen births and placement disruptions, or (3) causal in nature.

These data suggest that children entering a new foster care episode during their teens may be a particularly vulnerable subpopulation.

Variations by episode length produced some of the most striking differences in birth rates. Girls who had been in foster care episodes lasting 60 months or more (and who therefore entered foster care at or before age 12) had significantly lower rates of first births. Although it would be inappropriate to draw any causal conclusions for the reasons noted above, these data suggest that children entering a new foster care episode during their teens may be a particularly vulnerable subpopulation. Additionally, notwithstanding the likely adverse selection of already pregnant or parenting teens into foster care (which would inflate the rates of first births among youth in shorter episodes), these data still indicate that teens in long-term episodes have lower teen birth rates overall, and that for some children there may be benefits accrued through the stability implicit in longer-term foster care (e.g., children placed in long-term guardianship or kin placements). Future research should provide a more nuanced and fully longitudinal examination of foster care episode length, number of placements, and teen birth rates.

Finally, we also stratified birth rates by two placement-related covariates frequently examined in the foster care literature: placement type and final exit. Birth rate findings across these two variables were largely consistent and directionally aligned with expected birth rate differences. Although rates of first birth were statistically equivalent for kinship and non-kinship foster placements, teens in congregate care settings had significantly higher rates of birth whereas teens in guardianship placements had lower rates. As noted earlier and true of other covariates, it is unknown if these relationships are a manifestation

CHARACTERISTIC BIRTH RATE DIFFERENCES
(continued)

of selection effects or reflect causal relationships. Consistent with the lower rates of birth among teens whose last placement was coded as guardianship, teens who exited to adoption/guardianship had the lowest rates of first births. Relative to teens emancipating from foster care, the cumulative rate of first births before age 20 was significantly higher among teens who reunified and whose last exit was coded as a runaway.

Few differences emerged in rates of repeat teen births among those girls with a first birth before age 18 or 19. In fact, the most notable finding was the high rate of repeat teen births overall. Although only 11.5% of girls in foster care at age 17 had given a first birth before age 18, nearly 4 in 10 of these teens gave birth a second time before age 20. The rate of repeat teen births among those with a first birth before age 19 was roughly 3 in 10.

ALIGNMENT WITH OTHER RESEARCH

Few comparable longitudinal statistics of first or repeat birth rates are available, either for the adolescent population at large or for girls in foster care. Published state and national birth rate statistics for the general population are single-year incident rates reflecting the number of girls who were age 15–19 and gave birth.[2] These estimates, however, fail to capture the cumulative number or percentage of girls who had a first or repeat birth during their teen years. The closest birth rate we identified was found in a report based on the 2006–2010 National Survey of Family Growth (NSFG), a nationally representative survey examining sexual activity, contraceptive use, and childbearing in the United States.[22] Using a life table methodology, researchers estimated the probability of a first birth before age 18 at 8% and a first birth before age 20 at 18%. In our foster care population, we found that 11.5% and 27.5% of girls in foster care at age 17 had a first birth before age 18 and 20, respectively.

Although our estimate of first births is higher, it is important to keep in mind that the foster care population is a distinct subset of the overall population, composed predominantly of children and adolescents from families experiencing high and often chronic levels of poverty[29] and typically residing in impoverished neighborhoods[30] in which the economic calculus for delaying motherhood may be very different than other settings.[8] Comparisons between foster care and general population youth are inevitably confounded by socioeconomic factors.[31] Underscoring the salience of these factors, when the NSFG data were disaggregated into subpopulations more sociodemographically analogous to youth in foster care, the probability of a teen birth among adolescents who were themselves born to teen mothers was estimated to be 13% (before age 18) and 29% (before age 20), higher than the rates of our foster care population.[22] Among adolescents in the NSFG whose mothers had not earned a high school diploma or GED, the probability of a teen birth before age 18 and 20 was 18% and 37%, respectively. Again, these estimated birth rates are higher than we found for our population of girls in foster care at age 17. Despite widespread assumptions to the contrary, data from the present study do not necessarily indicate a heightened teen birth rate among adolescents in foster care compared to socioeconomically similar adolescents in the community.

Our cumulative teen birth rates can also be compared to those from the Midwest Evaluation study,[20] which longitudinally followed a sample of youth who were in foster care at age 17 (n = 732) in Wisconsin, Illinois, and Iowa. Our estimates of the cumulative percentage of girls who had given birth before age 20 are slightly

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lower, but very close to those reported in the Midwest study.[32,33] In the Midwest study, 31.3% of girls in the sample were parenting at the first follow-up interview (when most girls were age 19) compared to our estimates of 27.5% (LA) and 28.1% (CA) before age 20. The two estimates are strikingly similar given that significant variations emerge in overall teen birth rates by race and geography. The highest birth rates for Black teens have been observed in the upper Midwest,[34] and more than 50% of the Midwest foster care sample was Black.[20] In contrast, California has one of the lowest teen birth rates in the country, particularly among Latinas.[34] Yet, it appears that dynamics contributing to population-level

disparities in teen birth rates may operate differently among youth in foster care. Although our estimate may provide a slight undercount due to births occurring outside of California (our data were based on state birth records) and from missed matches between CPS and birth records, the alignment between the present study and the Midwest study help to validate both the record linkages underlying this analysis and the generalizability of the foster care sample used in the Midwest study.

CONCLUSION

Monitoring the incidence of first and repeat births among girls currently and formerly in foster care is critical to evaluating the efficacy of pregnancy prevention efforts and determining the nature of services that are needed for young mothers and children. These epidemiological data are even more important given recent federal legislation which lays the groundwork for states to extend foster care to nonminor dependents age 18 and over. Data from the present study indicate that a relatively small share (roughly 1 in 9) of all 17 year old girls in foster care have given birth before their 18th birthday, the traditional age at which an exit from foster care would have occurred. Yet by the end of their teens, data from Los Angeles (and analogous data from California) suggest that more than 1 in 4 will be parenting (and upon exit at age 21 it will be 1 in 3). The extension of foster care to youth over the age of 18 means that the nature of the state's parenting obligations will expand and will increasingly include the next generation of children. Although current birth rate patterns do not necessarily provide a sound counterfactual for the future, data from the present study highlight the need for expanded data and rigorous research concerning pregnant and parenting transition-age foster youth.

REFERENCES

1. Hamilton BE, Ventura, SJ. Birth rates for U.S. teenagers reach historic lows for all age and ethnic groups. Hyattsville, MD: National Center for Health Statistics; 2012. http://www.cdc.gov/nchs/data/databriefs/db89.htm

2. Hamilton BE, Martin JA, Ventura, SJ. Births: preliminary data for 2011. National Vital Statistics Reports, Vol. 61, No. 5. Hyattsville, MD: National Center for Health Statistics; 2012. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_05.pdf

3. Basch CE. Teen pregnancy and the achievement gap among urban minority youth. J Sch Health. 2011;81(10):614–618.

4. Patel, PH, Sen B. Teen motherhood and long-term health consequences. Matern Child Health J. 2012;16(5):1063–1071.

5. Perper K, Peterson K, Manlove J. Diploma attainment among teen mothers. Washington, DC: Child Trends; 2010.

6. Geronimus AT, Korenman S. The socioeconomic consequences of teen childbearing reconsidered. Q J Econ. 1992;107(4):1187–1214.

7. Harding DJ. Counterfactual models of neighborhood effects: The effect of neighborhood poverty on dropping out and teenage pregnancy. Am J Sociol. 2003;109(3):676–719.

8. Kearney MS, Levine PB. Why is the teen birth rate in the United States so high and why does it matter? J Econ Perspect. 2012;26(2):141–166.

9. Levine JA, Emery CR, Pollack H. The well-being of children born to teen mothers. J Marriage Fam. 2007;69(1):105–122.

10. Levine JA, Pollack H, Comfort ME. Academic and behavioral outcomes among the children of young mothers. J Marriage Fam. 2001;63(2):355–369.

11. Jaffee S, Caspi A, Moffitt TE, Belsky J, Silva P. Why are children born to teen mothers at risk for adverse outcomes in young adulthood? Results from a 20-year longitudinal study. Dev Psychopathol. 2001;13:377–397.

12. Chen X-K, Wen SW, Fleming N, Demissie K, Rhoads GG, Walker M. Teenage pregnancy and adverse birth outcomes: A large population based retrospective cohort study. Int J Epidemiol. 2007;36(2):368–373.

13. Chen X-K, Wen SW, Fleming N, Yang Q, Walker MC. Increased risks of neonatal and postneonatal mortality associated with teenage pregnancy had different explanations. J Clin Epidemiol. 2008;61(7):688–694.

14. Brooks-Gunn J, Furstenberg FF. The children of adolescent mothers: Physical, academic, and psychological outcomes. Dev Rev. 1986;6(3):224–251.

15. Flanagan P, Coll CG, Andreozzi L, Riggs S. Predicting maltreatment of children of teenage mothers. Arch Pediatr Adolesc Med. 1995;149(4):451–455.

16. Putnam-Hornstein E, Needell B. Predictors of child protective service contact between birth and age five: An examination of California's 2002 birth cohort. Child Youth Serv Rev. 2011;33(11):2400–2407.

REFERENCES
(continued)

17. Furstenberg FF, Levine JA, Brooks-Gunn J. The children of teenage mothers: Patterns of early childbearing in two generations. Fam Plann Perspect. 1990;22(2):54–61.

18. Meade CS, Kershaw TS, Ickovics JR. The intergenerational cycle of teenage motherhood: An ecological approach. Health Psychol. 2008;27(4):419–429.

19. Carpenter SC, Clyman RB, Davidson AJ, Steiner JF. The association of foster care or kinship care with adolescent sexual behavior and first pregnancy. Pediatrics. 2001;108(3):e46-e46.

20. Dworsky A, Courtney ME. The risk of teenage pregnancy among transitioning foster youth: Implications for extending state care beyond age 18. Child Youth Serv Rev. 2010;32(10):1351–1356.

21. Pecora PJ, WIlliams J, Kessler RJ, Downs AC, O'Brien K, Hiripi E, Morello S. Assessing the effects of foster care: Early results from the Casey National Alumni Study. Seattle, WA: Casey Family Programs; 2003.

22. Martinez G, Copen CE, Abma JC. Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2006–2010 National Survey of Family Growth. Hyattsville, MD: National Center for Health Statistics. http://www.cdc.gov/nchs/data/series/sr_23/sr23_031.pdf

23. Fostering Connection to Success and Increasing Adoption Act of 2008, Pub. L. No. 110-351, 122 Stat. 3949; 2008.

24. Svoboda DV, Shaw TV, Barth RP, Bright CL. Pregnancy and parenting among youth in foster care: A review. Child Youth Serv Rev. 2012;34(5):867–875.

25. Courtney ME, Needell B, Wulczyn F. Unintended consequences of the push for accountability: The case of national child welfare performance standards. Child Youth Serv Rev. 2004;26:1141–1154.

26. Centers for Disease Control and Prevention. Vital signs: Repeat births among teens—United Sates, 2007-2010. Atlanta, GA: Author; 2013. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a4.htm?s_cid=mm6213a4_w

27. Rubin DM, Alessandrini EA, Feudtner C, Mandell DS, Localio AR, Hadley T. Placement stability and mental health costs for children in foster care. Pediatrics. 2004;113:1336–1341.

28. Rubin DM, O'Reilly ALR, Luan X, Localio AR. The impact of placement stability on behavioral well-being for children in foster care. Pediatrics. 2007;119:336–344.

29. Sedlak AJ, Mettenburg J, Basena M, Petta I, McPherson K, Greene A, Li S. The Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families; 2010.

30. Wulczyn F, Gibbons R, Snowden L, Lery B. Poverty, social disadvantage, and the Black/White placement gap. Child Youth Serv Rev. 2013;35:65–74.

31. Putnam-Hornstein E, Needell B, King B, Johnson-Motoyama M. Racial and ethnic disparities: A population-based examination of risk factors for involvement with child protective services. Child Abuse & Negl. 2013;37(1):33–46.

32. Courtney ME, Dworsky A, Ruth G, Keller T, Havlicek J, Bost N. Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 19. Chicago, IL: Chapin Hall Center for Children at the University of Chicago; 2005.

33. Courtney ME, Dworsky A, Ruth G, Havlicek J, Perez A, Keller T. Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 21. Chicago, IL: Chapin Hall Center for Children at the University of Chicago; 2007.

34. Mathews TJ, Sutton PD, Hamilton BE, Ventura SJ. State disparities in teenage birth rates in the United States. NCHS Data Brief No. 46. Hyattsville, MD: National Center for Health Statistics; 2010.

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