



# FACT SHEET

## How is the 3 in 10 Statistic Calculated?

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When the National Campaign was formed in 1996, it was true that more than 4 out of 10 girls became pregnant at least once before age 20. Over time this percentage decreased, so that it was characterized as “about 4 in 10,” then “nearly 4 in 10,” and now has decreased to 3 in 10. How this statistic is estimated may not be obvious, so this fact sheet explains the methods and data used to calculate it.

### How does the 3 in 10 statistic differ from the usual pregnancy rate?

The typical teen pregnancy rate measures a teen’s risk of pregnancy in a single year. For example, the most recent teen pregnancy rate (from 2004) is 72.2 per 1,000, which means that for every 1,000 girls aged 15-19 in 2004, 72.2 experienced a pregnancy that year (or 7.22%).<sup>1</sup> The 3 in 10 statistic differs from a typical rate in that it measures *cumulative* risk of teen pregnancy over a teen girl’s entire life up to age 20, as opposed to the risk of pregnancy in a single year.

Table 1: Pregnancy Rates, 2004

Age	Rate per 1,000 <sup>1</sup>	Percent (Rate per 100) [column 2 ÷ 10]
Under 15	1.6	0.16%
15-17	41.5	4.15%
18-19	118.6	11.86%

Table 2: Proportion of Teen Girls Who Become Pregnant, at Each Year and Cumulatively, Without Adjusting for Subsequent Pregnancies

Age	Percent Pregnant That Year	Percent Pregnant, Cumulative
10	0.16%	0.16%
11	0.16%	0.32%
12	0.16%	0.47%
13	0.16%	0.63%
14	0.16%	0.79%
15	4.15%	4.52%
16	4.15%	8.25%
17	4.15%	11.99%
18	11.86%	20.90%
19	11.86%	29.81%

### How is the 3 in 10 statistic calculated?

Basically, the 3 in 10 statistic is calculated by applying the relevant age-specific pregnancy rate to a hypothetical group of teens each year as they age through the teen years up to age 20. Then, some of the pregnancies are subtracted at each age except the first year, to account for the fact that some girls become pregnant more than once as a teen, and the 3 in 10 statistic measures the proportion of teen girls who become pregnant *at least once* before age 20.

We begin by gathering the most recent teen pregnancy rates, which as of April, 2008, are for 2004 and are published by the National Center for Health Statistics (NCHS) (Table 1). These rates are then converted to percents by dividing each rate by 1000.

Next, we apply these pregnancy rates to a group of teen girls at each age through age 19 (Table 2). We begin with age 10, as the under 15 pregnancy rate from NCHS uses the 10-14-year-old population as the denominator. At age 14, teens’

risk of pregnancy is equal to the rate for girls under 15. At ages 15, 16, and 17, the risk of pregnancy is

equal to the rate for girls aged 15-17, and at ages 18 and 19 the risk of pregnancy is equal to the rate for girls 18-19. The sum of the percent pregnant at each year, ages 10-19, equals the gross cumulative proportion of girls who become pregnant as a teen. However, at this point we are overstating the proportion because we are assuming that each pregnancy occurs to a different teen, when in fact some teens become pregnant more than once during the teen years.

**Table 3: Number of teen births by birth order, 2004<sup>2</sup>**

	<b>10-14</b>	<b>15-17</b>	<b>18-19</b>
<b>first births</b>	6,363	119,835	210,312
<b>subsequent births</b>	114	13,411	58,130
<b>order not stated</b>	31	734	1,384
<b>total births</b>	6,781	133,980	281,282
<b>% subsequent (of those with known birth order)</b>	1.7%	10.1%	24.9%

Next we need to determine what proportion of pregnancies are subsequent pregnancies. As the proportion of teen births that are subsequent is readily available from NCHS<sup>2</sup>, but the proportions of teen abortions and miscarriages that are subsequent are not available, we use the proportion of teen births that are subsequent to estimate the proportion of all pregnancies that are subsequent (Table 3).

Finally, we need to extend the calculations in Table 2 by subtracting the proportion of pregnancies that are subsequent from the percent pregnant each year (Table 4). After subtracting subsequent pregnancies, the net result is that 29.81% of girls become pregnant at least once as a teen, which can also be said as 3 in 10.

**Table 4: Proportion of Teen Girls Who Become Pregnant, at Each Year and Cumulatively, Adjusted for Subsequent Pregnancies**

<b>Age</b>	<b>Percent Pregnant That Year</b>	<b>Proportion of Those Pregnancies That Are Subsequent</b>	<b>Percent Pregnant for the First Time That Year [col. B-(col. B x col. C)]</b>	<b>Percent Pregnant for the First Time, Cumulative</b>
<b>10</b>	0.16%		0.16%	0.16%
<b>11</b>	0.16%	1.7%	0.16%	0.32%
<b>12</b>	0.16%	1.7%	0.16%	0.47%
<b>13</b>	0.16%	1.7%	0.16%	0.63%
<b>14</b>	0.16%	1.7%	0.16%	0.79%
<b>15</b>	4.15%	10.1%	3.73%	4.52%
<b>16</b>	4.15%	10.1%	3.73%	8.25%
<b>17</b>	4.15%	10.1%	3.73%	11.99%
<b>18</b>	11.86%	24.9%	8.91%	20.90%
<b>19</b>	11.86%	24.9%	8.91%	<b>29.81%</b>

1. Ventura, S.J., Abma, J.A., Mosher, W.D., and Henshaw, S.K. (2008). Estimated Pregnancy Rates by Outcome for the United States, 1990-2004. *National Vital Statistics Reports*, 56(15).

2. Martin, J.A., Hamilton, B.E., Sutton, P.D., Ventura, S.J., Menacker, F., and Kirmeyer (2006). Births: Final data for 2004. *National Vital Statistics Reports*, 55 (1).