STATISTICAL NOTE

2012-13 NATALITY REPORT IN THE DISTRICT OF COLUMBIA

Department of Health
Center for Policy, Planning, and Evaluation
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Muriel Bowser, Mayor

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Final

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Executive Summary

District of Columbia hospitals and birthing centers are mandated to file birth certificates with the state for all live births occurring at their facilities. Birth data presented in this report are derived from demographic and other information collected from the District of Columbia birth certificate. In addition to analyzing the most recent (2012 & 2013) birth data, this report also provides contextual analysis of 20 years birth trends from 1994 to 2013. These trend analyses provide insight into the factors contributing to overall changes in District population trends and also into changes in population proportions by race and ethnicity. Birth statistics for 2012 are also compared to similar statistics for 2013 as a way to monitor short term changes in birth indicators and their magnitude.

Birth Trends

- The number of births from 1994 to 2002 shows a declining trend; overall births declined by 24.4 percent between these periods. From 2003 to 2013, the number of births shows an increasing trend and increased by about 22 percent with the exception of slightly declined in 2009.

- Overall, there has been 6.5 percent decline in DC births from 1994 to 2013. As a proportion of these births, black births fell from 77.0 percent of the total in 1994 to 52.3 percent by 2013, while as a proportion of white births increased from 13.7 percent in 1994 to 32.4 percent in 2013 and Hispanic births increased from 9.0 percent of the total in 1994 to 17.0 percent of all births by 2009 and again continue to decline and became 13.4 percent in 2013. Births among unmarried and teen aged women in DC declined sharply from 68.9 and 15.6 percent in 1994 to 50.6 and 7.1 percent in 2013 respectively.

Birth Counts, Fertility, and Selected Birth Rates

- A total of 9,264 births were reported to the District of Columbia resident mothers in 2013, a decrease of 1.1 percent births from 2012 (9,370).

- The crude birth rate in DC was 14.8 births per 1,000 total populations in 2012, the rate declined by 3.4 percent in 2013 (14.3).

- The general fertility rate in 2012 was 55.1 per 1,000 women aged 15-44 and the rate declined to 53.2 per 1,000 women in 2013.

- Gender distribution of 2012 and 2013 births were almost identical. The male and female births in 2012 were 4,807 (51.3 percent) and 4,563 (48.7 percent) compared to 4,767 (51.5 percent) and 4,497 (48.5 percent) in 2013.

- Both number and percent of births to Black mother increased in 2013 and accounted 52.3 percent (4,840) in 2013 compared to 51.4 percent (4,816) in 2012. Births to white women continue to increase in each year. Among the white women an increase of about 2.2 percent births observed from 2012 to 2013. Hispanic women gave birth to 14.6 percent (1,370) and 13.4 percent (1,244) babies in 2012 and 2013. There were 4.4 percent (411) and 4.7 percent (434) births to Asian women in the same period.

- Births among mothers with primary or secondary education declined about 6.0 percent from 43.7 percent (4094) in 2012 compared to 41.1 percent (3808) in 2013. However, births among college educated women increased more than 4.0 percent (55.2 vs. 57.5) during the same period.

- Birth to married women remain stable and was 48.7 percent (4,537) in 2012 and 48.8 percent (4,523) in 2013. Although the number of non-marital births in DC declined 1.4 percent in 2013, however, more births accounted among unmarried women than married during the same period. Births to unmarried women accounted 51.3 percent (4,788) in 2012 and 50.6 percent in 2013 respectively.

- In 2013, births to mothers younger than 20 years of age continue to decline by 16.5 percent over 2012 period. The rate comprised of 8.5 percent (796) of all births in 2012 compare to 7.1 percent (657) in 2013.

- Based on computations using the NCHS Transmission file calculation of "THE MONTH PRENATAL CARE BEGAN" 65.7 percent or 5,286 of District mothers in 2013 had begun prenatal care during first trimester. Prenatal care during 1st and 3rd trimester has increased 0.6 and 2.5 percent in 2013 compared to 2012. However, prenatal care during 2nd trimester decreased 2.3 percent in 2013 compared to 2012 (26.0 vs. 26.6 percent respectively).

- Residents of Ward 8 had the highest number of births (1,675 and 1,649) with 17.9 and 17.8 percent of the total births in 2012 and 2013 followed by Ward 4 resident births (1,479 or 15.8 percent and 1,375 or 14.8 percent) in the same period. The least number of births in 2012 and 2013 (643 or 6.9 percent and 667 or 7.2 percent) were attributed to residents of Ward 2.

Birth Outcomes

- The number of multiple births (329) was exactly the same in 2012 and 2013. However, in 2013 multiple births increase about 3.0 percent over 2012 (3.5 vs 3.6 percent of all births in 2012 and 2013 respectively). Singleton births slightly decrease to 96.4 percent (8,926) of all births in 2013, compared to 96.5 percent (9,025) of all births in 2012.

- In spite of decreased the number of normal birth weight babies (2500 grams and over) from 8,462 to 8,367 of all birth in 2012 and 2013 respectively, the percent of normal weight babies accounted for 90.3 percent of all births for both years. Low birth weight babies (less than 2500 grams) comprised of 9.7 percent (906) of total births in 2012, compared to 9.5 percent (876) of total births in 2013. Very low birth weight babies (less than 1500 grams) accounted for 2.5 percent (228) and 1.8 percent (164) in 2013 and 2012 respectively an increase of about 40.0 percent.

- Premature births (less than 37 weeks of gestation) accounted for 9.9 percent (926) of all births in 2012 increase to 10.5 percent (960) of all births in 2013 an increase of 5.1 percent of all births.

- Vaginal/spontaneous deliveries accounted 62.4 percent (5,843) of total deliveries in 2012, compared to 62.3 percent (5,772) of total deliveries in 2013. Women who had C-section deliveries increased about 2.0 percent and accounted for 33.6 percent (3,150) in 2012, compared to 34.2 percent (3,172) in 2013 births including Vaginal/Previous C-section, and Repeat C-section deliveries.

Potential Risk Behaviors

- Tobacco use among district mother decreased more than 22.0 percent over the reporting period. In 2012, 3.6 percent (330) women self reported tobacco use, and that decreased to 2.8 percent (261) in 2013.

- The youngest mother gave births in 2012 and 2013 were 13 years and the oldest mothers were 55 and 52 years in the same period. The largest and smallest weight births were 5,897 grams and 107 grams in 2012 compared to 6,169 grams and 165 grams in 2013.

Notables:

Birth Characteristics	2012	2013
Youngest Mother	**13**	**13**
Oldest Mother	**55**	**52**
Youngest Father	**15**	**15**
Oldest Father	**71**	**69**
Sets of Twins	**317**	**326**
Sets of Triplets	**12**	**3**
Sets of Quadruplets	**0**	**0**
Month Most Births Occurred	**August**	**August**
Month Fewest Births Occurred	**February**	**February**
Largest Live Birth Weight	**5897 grams (13 lbs 00 oz)**	**6169 grams (13 lbs 9.6 oz)**
Smallest Live Birth Weight	**107 grams (4.00 oz)**	**165 grams (5.8 oz)**

Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

1.0 NATALITY

1.1 Births: Definition and History

A live birth is defined as "the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy, which, after such expulsion or extraction, breathes, or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached[1]" (World Health Organization in 1950 and revised in 1988 by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists). The District of Columbia (DC) uses this definition as the basis for compiling statistics of live births.

Records of birth events and details are kept by Vital Records offices throughout the country in fulfillment of laws that require the registration of all births within national borders as the primary record of citizenship. Birth certificates with authentic seals are provided to birthing parents as proof of the place of occurrence, date and time. Vital statistics are compiled by vital records offices and used to determine trends, rates, causes and other defining characteristics of births, deaths, marriages and divorces by jurisdiction and for the nation as a whole. The original purpose for the passing of the early vital records registration laws in the U.S. was for the protection of individual rights primarily related to the ownership and bequeathing of property. However, with the rise of industrialism and urbanization in the 19th century, information from mortality records was needed to develop support for sanitary reform and public health in general. In the late 1840s the newly formed American Medical Association (AMA) began promoting the use of mortality statistics in the study of various health conditions of the U.S. population[2].

The annual collection of birth statistics for the U.S. began in 1915 with 10 states and DC. By 1933 the reporting system comprised most of the United States. The organized collection of jurisdictional vital records data by law at the national level began in 1960 when the National Center for Health Statistics (NCHS) was created with a mandate under 42 U.S.C. 242k, Section 306(h) of the Public Health Service Act, to collect vital statistics annually[3]. Since 2009 DC Vital Record System participating the STEVE (State and Territorial Exchange of Vital Events) a web-based application used by U.S vital records jurisdictions to exchange vital records data with other jurisdictions, to provide data to the National Center for Health and Statistics, and to provide data to public health partner programs. This system facilitates the NCHS to verify/validate and filter data and exchange data about vital events among participating trading partners.

1.2 Birth Counts and Birth Rates

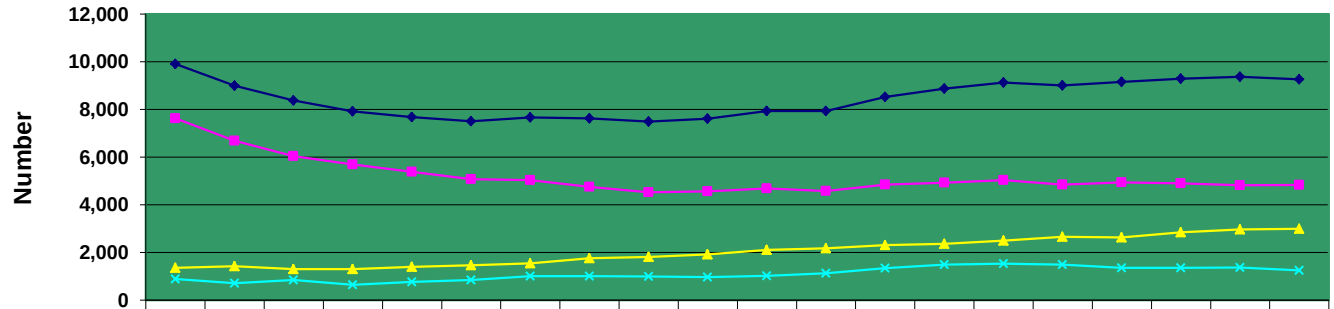
The current report provides selected information on current births in calendar year 2012-2013 and related statistics and comparisons within these years. Some trend data and analyses are provided for context. In this report both numbers (counts) and rates are used as required to more clearly present the statistics and their meaning. Generally, the number of events can be used to determine the size of a problem in any area (e.g., how many teens gave birth) or to estimate population changes due to birth and death. But, by using just numbers, we cannot readily compare two areas or two time periods. Such comparisons should take the size of the population into account to avoid erroneous conclusions. To eliminate the effect of different sized populations, we compare rates[4].

A rate is the number of vital events (such as births) in a specified time period (e.g., calendar year) divided by the number of people in the jurisdictional population (typically, a state, county or city population). Usually the recent census or estimated population is use as a denominator. This figure is generally multiplied by a constant such as 1,000 or 100,000 to get a number that is easy to read and compare and is reported as "per 1,000" or "per 100,000." A rate in this report is calculated by computing the number of the event per 1,000 populations[5].

This section looks at certain interesting birth patterns in the data trending over the past 20 years. Figure 1 and Table 1 below present selected birth data from 1994 to 2013 by race and ethnicity, marital status and teenage status (< 20 years)[6-14].

The number of births in this period clearly shows a declining trend from a period high of 9,911 in 1994 to a period low of 7,494 in 2002. This decline in births by 24.4 percent from 1994 to 2002 is then followed by an increasing trend of about 25 percent in 2012 with the exception of slightly declined in 2009. In 2009 the number of births accounted 9,008, and again increased to 9,156 in 2010 and 9,370 in 2012 and again slightly declined and accounted 9264 births in 2013. The declining trend in overall births in the District in 1994-2002 period coincided with a similar but larger decline in births to black mothers (44.5 percent) with a low point in 2002 when 4,532 black infants were born. Black births have since increased by 11.0 percent from 4,532 in 2002 to 5031 births in 2008 and slightly declined after that. Births to white mothers also declined since 1994 but for a shorter period. Births to white mothers fell to its lowest level (1,300) in 1997 from 1,354 in 1994, representing a decline by 4.0 percent. Births to white mothers then increased by more than 130.0 percent from the low of 1,300 in 1997 to a high of 2,997 in 2013. Since 1998, the proportion of births among white mothers showed steady upward trend throughout the reporting periods. Proportion of births to Hispanic mothers also reflected a great change and increased in trend during the period between mid 199o's and 2009. Hispanic births increased by 112.5 percent from as low as 8.0 percent in 1995 to a high of 17.0 percent in 2009 and again declined to 14.9 in 2010 and further declined to 13.4 in 2013 respectively.

Figure 1: Birth Trends by Race and Ethnicity: District of Columbia Residents, 1994-2013



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
DC	9,911	8,993	8,377	7,916	7,678	7,513	7,666	7,621	7,494	7,616	7,937	7,940	8,522	8,870	9,134	9,008	9,156	9,289	9,370	9,264
Black	7,629	6,681	6,048	5,696	5,381	5,081	5,039	4,753	4,532	4,566	4,684	4,575	4,847	4,926	5,031	4,847	4,940	4,903	4,816	4,840
White	1,354	1,422	1,309	1,300	1,392	1,467	1,543	1,766	1,808	1,925	2,115	2,171	2,311	2,370	2,494	2,655	2,635	2,843	2,974	2,997
Hispanic	888	715	853	646	762	842	1,006	1,005	1,000	975	1,028	1,132	1,344	1,487	1,527	1,498	1,351	1,358	1,370	1,244

Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

Married women consistently have better birth outcomes than unmarried women. Most researchers do not see a direct correlation between marital status and birth outcomes, but it appears that marital status acts as a proxy for multiple socioeconomic factors that seem to more directly impact behaviors that affect birth outcomes. Marital status also seems to serve as a proxy for access to prenatal care and proper nutrition. Tracking births by marital status is therefore useful as an indicator of expected birth outcomes.

For DC residents, births to unmarried women declined by 22.0 percent from 68.9 percent (6,827) of all births in 1994 to a low point in 2003 when these births accounted for 53.7 percent (4,093) of the total (Table 1). Births to unmarried women then increased by 8.9 percent from 2003 to 2007 when 5,190 or 58.5 percent of births were reported to unmarried women. Again, since 2008 a declining trend was observed among births to unmarried women and it was accounted 57.8 percent (5,278) in 2008, 50.6 percent (4,690) in 2013.

Teenage births (younger than 20 years) also declined in the period from a high of 1,406 (16.8 percent) in 1996 to a low point of 875 (11.0 percent)) in 2005. Teenage births have since shown an upward trend increasing by 10.9 percent from the year 2005 to 12.2 percent in 2008. Since 2009, a declining trend was observed and reached to 7.1 percent (657) in 2013 which is 39.3 and 16.5 percent less compared to 11.7 and 8.5 percent in 2009 and 2012 respectively.

In summary, there has been a 24.4 percent decline in overall DC births from 1994 to 2002 and after that the number of births again increased. An increase of 25.0 percent of births was observed in 2012 (9,370) over 2002 (7,494) and again declined to 9264 births in 2013. As a proportion of these births, black births fell from 77.0 percent of the total in 1994 to 52.3 percent by2013. While as a proportion, white births continuously increased from 13.7 percent in 1994 to 32.4 percent in 2013. Hispanic births also increased from 9.0 percent of the total births in 1994 to 14.6 percent of all births by 2012. (Table1) and again declined to 13.4 percent in 2013. Appendix 1 shows the changes in the resident population for the District of Columbia from 2000 to 2013. Population trends indicated that the proportion of blacks has declined and this is a possible explanation for the decrease in the number of births among black mothers. On the other hand, increases in the number of births to whites and Hispanics are often times attributed to the growth in size of the DC population from the 2000 & 2010 census to the current 2013 estimated population[15].

Table 1: Twenty-Year Birth Trends: District of Columbia, 1994-2013

Year	Births	Black	%	White	%	Hispanic *	%	Unmarried	%	<20yrs	%
1994	9,911	7,629	77.0	1,354	13.7	888	9.0	6,827	68.9	1,550	15.6
1995	8,993	6,681	74.3	1,422	15.8	715	8.0	5,937	66.0	1,392	15.5
1996	8,377	6,048	72.2	1,309	15.6	853	10.2	5,545	66.2	1,406	16.8
1997	7,916	5,696	72.0	1,300	16.4	646	8.2	5,042	63.7	1,233	15.6
1998	7,678	5,381	70.1	1,392	18.1	762	9.9	4,829	62.9	1,172	15.3
1999	7,513	5,081	67.6	1,467	19.5	842	11.2	4,641	61.8	1,113	15.0
2000	7,666	5,039	65.7	1,543	20.1	1,006	13.1	4,623	60.3	1,086	14.2
2001	7,621	4,753	62.4	1,766	23.2	1,005	13.2	4,373	57.4	1,017	13.3
2002	7,494	4,532	60.5	1,808	24.1	1,000	13.3	4,233	56.5	956	12.8
2003	7,616	4,566	60.0	1,925	25.3	975	12.8	4,093	53.7	865	11.4
2004	7,937	4,684	59.0	2,115	26.6	1,028	13.0	4,442	56.0	887	11.1
2005	7,940	4,575	57.6	2,171	27.3	1,132	14.3	4,448	56.0	875	11.0
2006	8,522	4,847	56.9	2,311	27.1	1,344	15.8	4,908	57.6	1,021	12.0
2007	8,870	4,927	55.5	2,370	26.7	1,487	16.8	5,190	58.5	1,075	12.1
2008	9,134	5,031	55.1	2,494	27.3	1,527	16.7	5,278	57.8	1,114	12.2
2009	9,008	4,847	55.7	2,655	30.5	1,498	17.0	4,995	55.8	1,057	11.7
2010	9,156	4,940	57.7	2,632	30.7	1,351	14.9	5,008	55.0	967	10.6
2011	9,289	4,903	55.9	2,843	32.4	1,358	14.8	4,963	53.6	908	9.8
2012	9,370	4816	53.4	2,974	33.0	1,370	14.6	4,788	51.4	796	8.5
2013	9,264	4,840	52.3	2,997	32.4	1,244	13.4	4,690	50.6	657	7.1

Note: Persons of Hispanic/Latino origin may be of any race. So, race category contains persons of both Hispanic and non-Hispanic origin.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.1.3

2012-2013 Birth Counts, Crude Birth Rates, and Fertility Rates

During the years 2012 and 2013, there were 9,370 and 9,264 live births to the District of Columbia residents. The births represent a crude birth rate[1] of 14.8 and 14.3 per 1,000 populations (Table 2) for the years 2012 and 2013 respectively. The general fertility[2] rate was 55.1 and 53.2 per 1,000 for DC women aged 15-44 in 2012 and 2013 representing 3.4 percent fertility declined between the years 2012 and 2013.In 2013 the fertility rate for DC teen[3] aged 15-19 years declined to 32.1 births per 1,000 females in this age group. This rate was 16.6 percent lower than the rate (38.5) was in 2012 (Table 8).

[1] **Birth Rate (Crude)** = (Number of live births / Population) X 1,000
[2] **Fertility Rate** = (Number of live births to women aged 15-44/ Number of women aged 15-44) X 1,000
[3] **Teenage Fertility Rate** = (Number of live births to women aged 15-19/ Number of women aged 15-19) X 1,000

Table 2: Births to District of Columbia Residents, 2012-2013

Birth Characteristic	2012		2013		% Change from 2011 to 2012	Is Change Significant?[2]
	#	%	#	%		
Live Births	9,370	100	9,264	100		
Crude Birth Rate	14.8		14.3		-3.38	Yes
Fertility Rate	55.1		53.2		-3.45	Yes
Gender Distribution						
Males	4,807	51.3	4,767	51.5	0.39	No
Females	4,563	48.7	4,497	48.5	-0.41	No
Race[4]						
Black	4,816	51.4	4,840	52.3	1.75	No
White	2,974	31.7	2,997	32.4	2.21	No
Hispanic[1]	1,370	14.6	1,244	13.4	-8.22	Yes
Asian & Pacific Islanders	411	4.4	434	4.7	6.82	No
Mother's Education[4]						
Primary or secondary	4,094	44.2	4,808	41.1	-5.95	Yes
College	5,172	55.8	5,327	57.5	4.17	Yes
Marital Status[4]						
Married	4,537	48.7	4,523	48.8	0.21	No
Unmarried	4,788	51.3	4,690	50.6	-1.36	No
Age of Mother[4]						
< 20 yrs.	796	8.5	657	7.1	-16.47	Yes
15-19 yrs	790	8.4	637	6.9	-17.86	Yes
20-34 yrs.	6,412	68.4	6,444	69.6	1.90	No
> 35 yrs.	2,165	23.1	2,159	23.3	0.87	No
Prenatal Care[4]						
First Trimester	5,508	65.3	5286	65.7	0.61	No
Second Trimester	2,244	26.6	2097	26.0	-2.26	No
Third Trimester	665	7.9	648	8.1	2.53	No
No Care	24	0.3	21	0.3	0.00	No
Plurality[4]						
Single Births	9,025	96.5	8,926	96.4	-0.10	No
Plural Births	329	3.5	329	3.4	2.86	No
Birth Weight						
NBW (≥2,500 grams)	8,462	90.3	8,367	90.3	0.00	No
LBW (<2,500 grams)	906	9.7	876	9.5	-2.06	No
VLBW (<1,500 grams)	164	1.8	228	2.5	38.89	Yes
Period of Gestation[4]						
< 32 Weeks	175	1.9	233	2.5	31.58	Yes
32-36 Weeks	751	8.0	727	7.9	-1.25	No
37-41 Weeks	8,378	89.6	8,195	88.5	-1.23	Yes
Method of Delivery[4]						
Vaginal	5,843	62.4	5,772	62.3	-0.16	No
C-sections[3]	3,150	33.6	3,172	34.2	1.79	No
Vacuum	295	3.2	236	2.6	-18.75	Yes
Forceps	81	0.9	76	0.8	-11.11	No
Substance Use						
Tobacco use	330	3.6	261	2.8	-22.22	Yes

Notes: 1. Persons of Hispanic/Latino origin may be of any race. Therefore, each race category contains persons of both Hispanic and non-Hispanic origin.
2. See definition of statistical significance in the technical notes section.
3. Includes Previous and Repeat C-Section; 4: Total does not match because of missing information.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

1.4 Birth Counts by Ward

As shown in Table 3 below, residents of Ward 8 had the largest number (and 1,675 or 17.9 and 1,649 or 17.8 percent) of births in 2012 and 2013 respectively. Five other Wards in 2012 and 2013 had more than 1,000 births and that includes Ward 1, Ward 4, Ward 5, Ward 6 and Ward 7. Ward 2 residents had the fewest number (643 or 6.9 and 667 or 7.2 percent) of births followed by Ward 3 (820 or 8.8 and 824 or 8.9 percent) during the same period.

Table 3: Race and Ethnicity by Ward: District of Columbia, 2012-2013

Race and Ethnicity by Ward-2012										
WARD	**Births**	**%**	**Black**	**%**	**White**	**%**	**Hispanic[1]**	**%**	**Asian & PI**	**%**
DC	9,370	100.0	4,816	53.4	2,997	32.4	1,370	14.7	411	4.6
WARD 1	1,196	12.8	296	27.8	412	38.8	426	35.9	79	7.2
WARD 2	643	6.9	64	10.4	467	70.0	87	13.6	80	12.9
WARD 3	820	8.8	45	5.6	671	81.4	61	7.5	82	10.2
WARD 4	1,479	15.8	660	49.4	365	26.6	503	34.2	35	2.6
WARD 5	1,113	11.9	741	68.8	232	19.6	146	13.2	34	3.2
WARD 6	1,276	13.6	419	33.2	701	55.7	62	4.9	90	7.1
WARD 7	1,156	12.4	1,085	95.0	36	2.9	48	4.2	6	0.5
WARD 8	1,675	17.9	1,501	89.9	111	6.7	35	2.1	5	0.3

Race and Ethnicity by Ward-2013										
WARD	**Births**	**%**	**Black**	**%**	**White**	**%**	**Hispanic[1]**	**%**	**Asian & PI**	**%**
DC	9,264	100.0	4,840	52.3	2,974	33.0	1,244	13.4	434	4.7
WARD 1	1,061	11.5	283	26.7	441	40.4	340	32.1	68	6.4
WARD 2	667	7.2	71	10.6	426	68.9	92	13.8	73	10.9
WARD 3	824	8.9	34	4.1	658	81.6	62	7.5	94	11.4
WARD 4	1,375	14.8	589	42.8	344	25.8	438	31.9	51	3.7
WARD 5	1,181	12.8	774	65.5	205	19.0	165	14.0	33	2.8
WARD 6	1,259	13.6	429	34.1	733	58.0	55	4.4	90	7.2
WARD 7	1,236	13.3	1,155	93.5	25	2.2	49	4.0	11	0.9
WARD 8	1,649	17.8	1,499	90.9	139	8.3	39	2.4	14	0.8

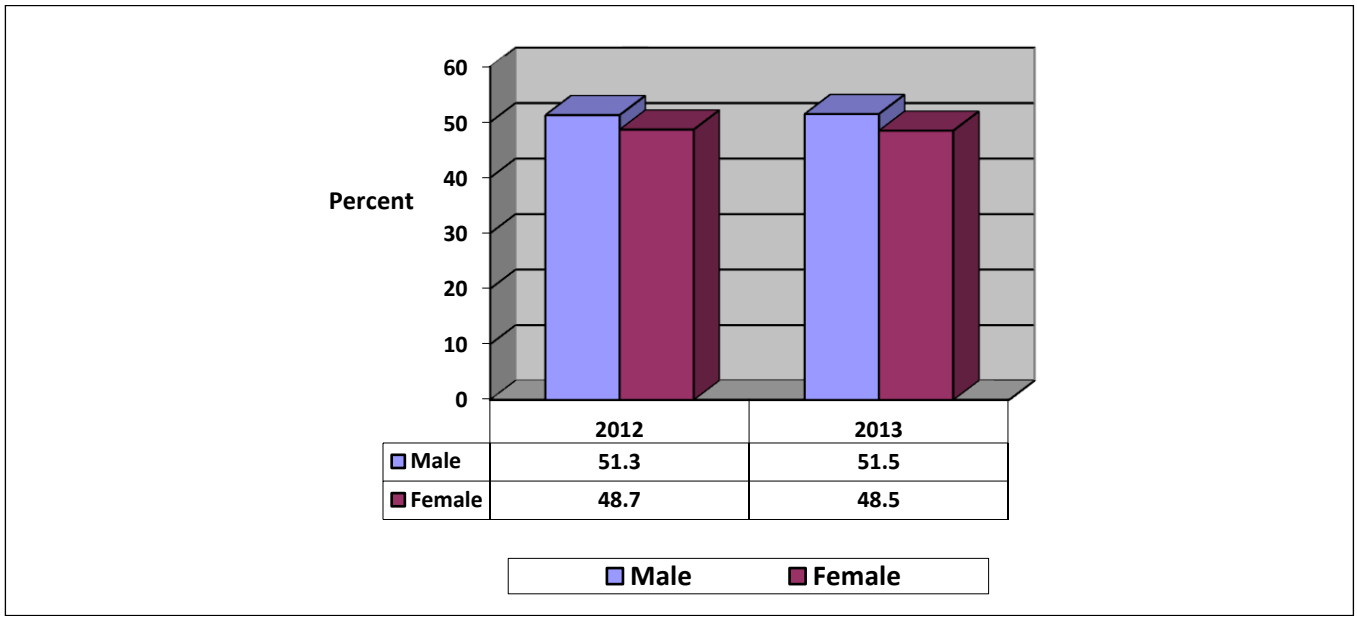
Note: 1. Persons of Hispanic/Latino origin may be of any race. Therefore, each race category contains persons of both Hispanic and non-Hispanic origin. 2. Total does not match because of missing information.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.0 DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS

2.1 Gender of Infant

The gender distribution of DC 2012-2013resident births shown in Table 2 and Figure 2, remained almost the same label with slightly high proportion of males born in 2013, and that is consistent with fairly long term sex difference of DC birth trend (1994-2012). The number of male births in 2013 (4,767) was slightly fewer than the 2012 figure of 4,807 but the proportion of total births increased and was (51.5 vs. 51.3 percent) (Table 2). The proportion of female births decreased by 0.4 percent from 48.7 percent (4,563) in 2012 to 48.5 percent (4,497) in 2013. Despite this long term trend in more male than female births, the population of the District continues to comprise more females 340,199 (52.6 percent) than males 306,250 (47.4 percent) in 2013 census estimates[15].

Figure 2: Births by Gender: District of Columbia, 2012- 2013



Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation,, DC Department of Health.

2.2 Race and Ethnicity of Mother

Births to black women increased from 51.4 percent or 4,816 in 2012 to 52.3 percent or 4840 in 2013 and proportions (32.4 vs. 31.7) of births to white women increased more than 2.2 percent in 2013 over 2012 period ((Tables 2 and 4).). Births to Hispanic women decreased significantly ($p<0.05$) during the same period. The proportions of births to Hispanic women were 14.6 and 13.4 percent in 2012 and 2013 respectively. The number of births to women of Asian and Pacific Islander increased by about 7.0 percent from 411 or 4.4 percent in 2012 to 434 or 4.7 percent in 2013.

Table 4: Births by Race and Ethnicity: District of Columbia, 2012- 2013

RACE	DC		DC	
	2012		2013	
	Number	Percent	Number	Percent
Black	4,816	51.4	4,840	52.3
White	2,974	31.7	2,997	32.4
Asian or Pacific Islander	411	4.4	434	4.7
Other	814	8.7	913	9.9
Total	9,370	100.0	9,264	100.0
ETHNICITY				
Hispanic	1370	14.6	1,244	13.4

Note: Persons of Hispanic/Latino origin may be of any race. Therefore, each race category contains persons of both Hispanic and non-Hispanic origin. Total does not match because of missing race and Ethnicity.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

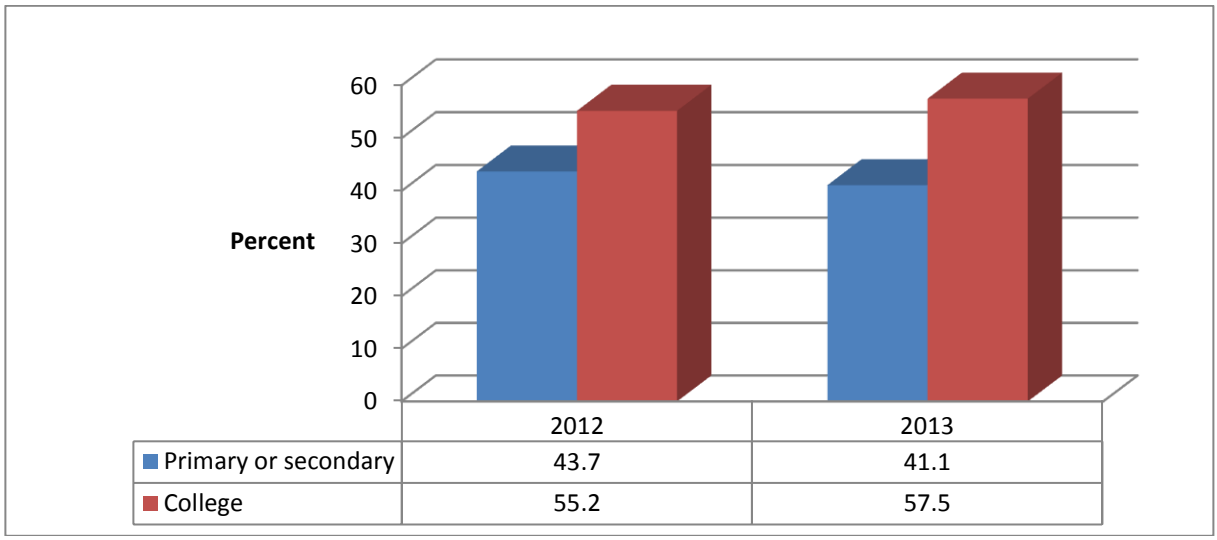
2.2.1 Race and Ethnicity by Ward

Like 2012, the highest number of births occurred in Ward 8 followed by Ward 4. In 2013 the largest proportion of births to black mothers (93.5percent or 1,155) was recorded by Ward 7 residents followed by Ward 8 (90.9 percent or 1,499). In 2013 overall birth to black mother declined by 2.1 percent, but the proportion of births to black mothers increased in Ward 4, 6 and 8 and deceased in Ward 1, 3, 4, 5, and 7 (Table 3). Residents of Ward 3 had the largest proportion of births to white mothers (81.4 percent or 671, and 81.6 percent or 658) in 2012 and 2013respectively. The largest proportions of births to Hispanic mothers were recorded by Ward 1 residents (35.9 percent or 426 and 32.1 percent or 340) followed by Ward 4 residents (34.2 percent or 503and 31.9 percent or 438) in the same period. The largest proportion of births to Asian and Pacific Islanders mothers (12.9 percent or 80) reported in Ward 2 for the year 2012 and 11.4 percent or 94 in Ward 3 in 2013 and the lowest proportion of this race group of mothers (0.3 percent or 5 and 0.8 percent or 14) occurred in Ward 8 during the same period.

2.3 Education of Mother

Births to women with primary or secondary education decreased significantly ($p<0.05$) by about 6.0 percent from 43.7 percent (4,094) in 2012 to 41.1 percent (3,808) in 2013(Table 2). Women with some college education also continued to increase significantly ($p<0.05$) from 55.2 percent (5,172) in 2012 to 57.5 percent (5,327) in 2013.

Figure 3: Births by Mother's Education: District of Columbia, 2012-2013



Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.3.1 Education of Mother by Ward

The largest proportions of births to Primary or Secondary educated mothers accounted in Ward 8 (65.8 percent or 1,087 and 63.0 percent or 1,038) followed by Ward 7 (62.2 percent or 706 and 60.0 or 742) in 2012 and 2013 respectively (Table 5). Women with some college education comprised the largest proportion of births in Ward 3 (92.3 percent or 752 and 92.7 percent or 764) followed by Word 2 (79.7 percent or 510 and 82.9 percent or 553) during the same time. The lowest proportion of births to mothers with Primary or Secondary education reported in Ward 3 (7.7 percent or 63) in 2012 and (6.7 percent or 55) in 2013. Births to some college educated mother accounted lowest proportion in Ward 8 (34.2 percent or 565 and 35.1 percent or 579) in 2012 and 2013 period.

Table 5: Mother's Education by Ward: District of Columbia, 2012-2013

Mother's Education by Ward- 2012				
	Primary or Secondary	%	Some college	%
DC	4,094	44.2	5,172	55.8
WARD 1	510	43.0	675	57.0
WARD 2	130	20.3	510	79.7
WARD 3	63	7.7	752	92.3
WARD 4	716	48.8	751	51.2
WARD 5	515	47.0	582	53.1
WARD 6	359	28.4	906	71.6
WARD 7	706	62.2	429	37.8
WARD 8	1,087	65.8	565	34.2

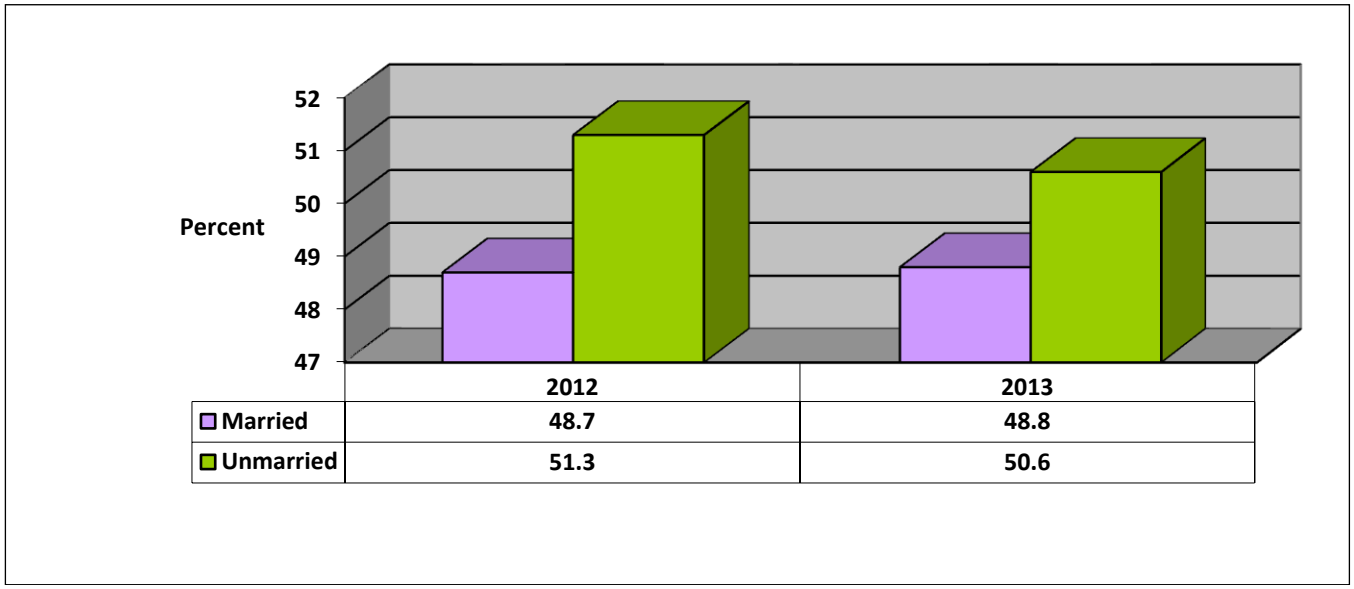
Mother's Education by Ward- 2013				
	Primary or Secondary	%	Some college	%
DC	3,808	41.1	5,327	57.5
WARD 1	427	40.3	618	58.3
WARD 2	108	16.2	553	82.9
WARD 3	55	6.7	764	92.7
WARD 4	583	42.4	772	56.2
WARD 5	497	42.1	666	56.4
WARD 6	348	27.6	899	71.4
WARD 7	742	60.0	474	38.4
WARD 8	1,038	63.0	579	35.1

Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.
Total does not match because of missing information.

2.4 Marital Status

The proportion of births to married women increased slightly by 0.2 percent from 48.7 percent (4,537) in 2012 to 48.8 percent (4,523) in 2013 (Table 2 and Figure 4). During the same time the proportion of births to unmarried women decreased by 1.4 percent in 2013 from 51.3 percent (4,788) in 2012 to 50.6 percent (4,690) in 2013.

Figure 4: **Births by Marital Status: District of Columbia, 2012- 2013**



Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.4.1 Marital Status by Ward

In Table 6, the largest proportion of births to unmarried women accounted in Ward 7 (85.6 percent or 985 and 85.0 percent or 1,051) followed by Ward 8 (80.7 percent or 1,342 and 81.1 percent or 1,338) during the reported periods in 2012 and 2013 respectively. The lowest proportion comprised in Ward 3 (7.5 percent or 61 and 5.3 percent or 44) at the same time. The largest proportion of births to married women consists of in Ward 3 (92.5 percent or 756 and 94.3 percent or 777) followed by Ward 2 (84.6 percent or 543 and 85.5 percent or 570) and lowest proportion for this group in Ward 7 (16.914.4 percent or 322 and 14.3 percent or 177) during the same period.

Table 6: Marital Status by Ward: District of Columbia Resident, 2012-2013

WARD	Marital Status by Ward- 2012			
	Unmarried	%	Married	%
DC	4,788	51.3	4,537	48.7
WARD 1	519	43.7	670	56.4
WARD 2	99	15.4	543	84.6
WARD 3	61	7.5	756	92.5
WARD 4	733	49.7	743	50.3
WARD 5	658	59.6	446	40.4
WARD 6	382	30.1	889	69.9
WARD 7	985	85.6	166	14.4
WARD 8	1,342	80.7	322	19.4

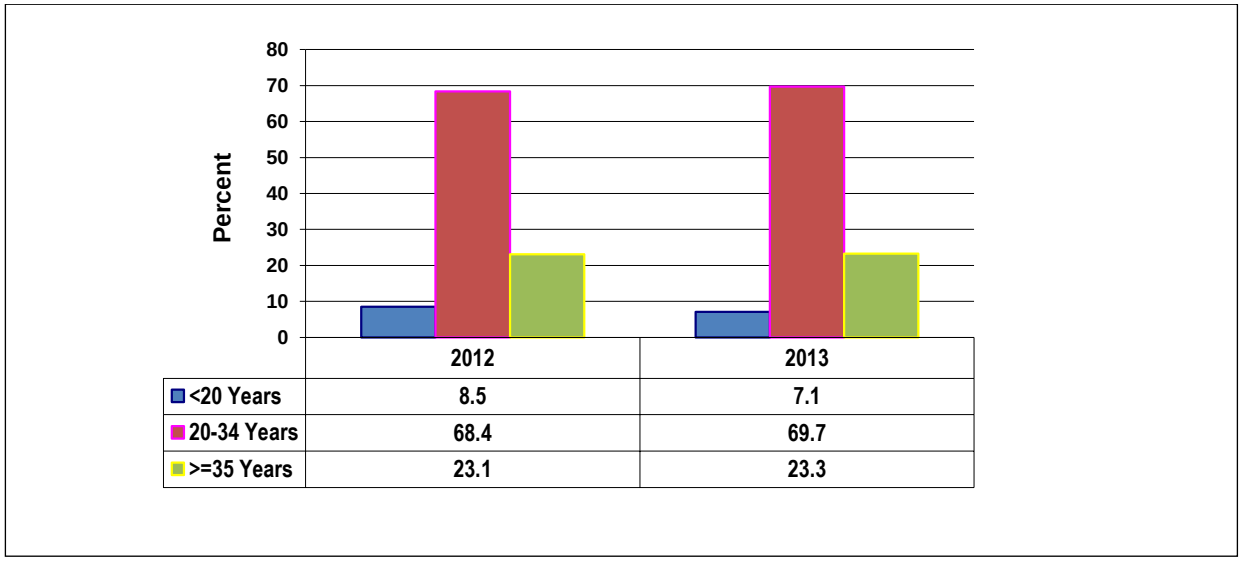
WARD	Marital Status by Ward- 2013			
	Unmarried	%	Married	%
DC	4,690	50.6	4,523	48.8
WARD 1	449	42.3	604	56.9
WARD 2	93	13.9	570	85.5
WARD 3	44	5.3	777	94.3
WARD 4	622	45.2	746	54.3
WARD 5	687	58.2	485	41.1
WARD 6	396	31.5	860	68.3
WARD 7	1,051	85.0	177	14.3
WARD 8	1,338	81.1	302	18.3

Note: DC Total does not match due to missing ward of residence and marital status.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.5 Age of Mother

For women aged less than 20 years, the number and proportion of births decreased 16.5 percent (significant $p < 0.05$) from 8.5 percent (796) in 2012 to 7.1 percent (657) in 2013. Births among teen (15-19 years) age group declined significantly ($p<0.5$) from 8.4 percent (790) to 6.9 percent (637) (Table 2 and Figure 5). The proportion of births to women in their 20-34 years age group increased about 2.0 percent from 68.4 percent (6,412) in 2012 to 69.7 percent (6,444) in 2013. Among women in their 35 and older age group the proportion of births increased about 1.0 percent. These figures accounted 23.1 percent (2,165) in 2012 compared to 23.3 percent (2,159) in 2013.

Figure 5: Births by Age of Mother: District of Columbia, 2012-2013



	2012	2013
<20 Years	8.5	7.1
20-34 Years	68.4	69.7
>=35 Years	23.1	23.3

Note: Does not include unreported age of mother.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.5.1 Age of Mother by Ward

Overall teen age mother's birth decreased by 16.5 percent in 2013 compared to 2012. Distribution of mother's age who gave birth at <20 years, ranged from highs of 15.9 percent (266) in Ward 8 to 0.4 percent in Ward 3 during the reporting period in 2012. In 2013 except Ward 7 all other Wards experienced lower percentage of births among <20 years age group and ranged from 14.1 percent (232) in Ward 8 and 0.4 percent (3) in Ward 3. Women in their 20-34 years age range 76.1 percent (1,275) and 77.1 percent (1,271) were the largest proportions of births recorded in Ward 8 both in 2012 and 2013 period. The smallest proportions were in Ward 3 with 53.1 percent (435) and 55.2 percent (455) during the same period. Women in 35 years and older age group accounted largest proportion of births in Ward 3 with 46.6 percent (382) and 44.3 percent (365) in 2012 and 2013.The smallest proportion in this age group experienced in Ward 8 with 8.0 percent (134) and 8.9 percent (146) in the same time.

Table 7: Mother's Age by Ward: District of Columbia, 2012-2013

WARD	Mother's Age (in years) 2012					
	<20 years	%	20-34 years	%	35 + years	%
DC	796	8.5	6,412	68.4	2,162	23.1
WARD 1	60	5.0	822	68.7	314	26.3
WARD 2	14	2.2	396	61.6	233	36.2
WARD 3	3	0.4	435	53.1	382	46.6
WARD 4	77	5.2	1,014	68.6	388	26.2
WARD 5	113	10.2	798	71.7	202	18.2
WARD 6	67	5.3	813	63.7	396	31.0
WARD 7	196	7.0	849	73.4	111	9.6
WARD 8	266	15.9	1,275	76.1	134	8.0

WARD	Mother's Age (in years) 2013					
	<20 years	%	20-34 years	%	35 + years	%
DC	657	7.1	6,444	69.7	2,159	23.3
WARD 1	53	5.0	690	65.0	318	30.0
WARD 2	9	1.4	400	60.0	258	38.7
WARD 3	3	0.4	455	55.2	365	44.3
WARD 4	74	5.4	934	67.9	367	26.7
WARD 5	85	7.2	859	72.7	236	20.0
WARD 6	48	3.8	853	67.8	356	28.3
WARD 7	153	12.4	972	78.6	111	9.0
WARD 8	232	14.1	1,271	77.1	146	8.9

Note: DC Total does not match due to missing ward of residence and mother's age.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.5.2 Age-Specific Fertility Rates

Table 8 presents age-specific fertility rate in different age groups among DC women in 2012 and 2013. During the reporting period overall fertility rate declined 3.5 percent from 55.1 per 1,000 women in 2012 to 53.2 per 1,000 women in 2013 (Table 2). Fertility declined for all women under age 30 and women 35-44 age groups in 2013 from 2012, rose for women age 30-34 and 45-49. At the youngest age group, DC women recorded a fertility rate of 0.5 and 1.6 per 1,000 women aged 10-14 years in 2012 and 2013. Teen aged women 15-19 also recorded about 17.0 percent declining fertility rate of 38.5 per 1,000 women in 2012 compared to 32.1 per 1,000 women in 2013. Fertility rate among women in 20–24 age groups decreased from 56.0 per 1,000 women in 2012 to 54.0 per 1,000 women in 2013. Older women age groups 35-40 and 40-44 had also experienced decreased fertility rates to 72.3, and 24.3 in 2012 compared to 68.7 and 21.1 in 2013 respectively.

Table 8: **Age-Specific Fertility Rates: District of Columbia, 2012-2013**

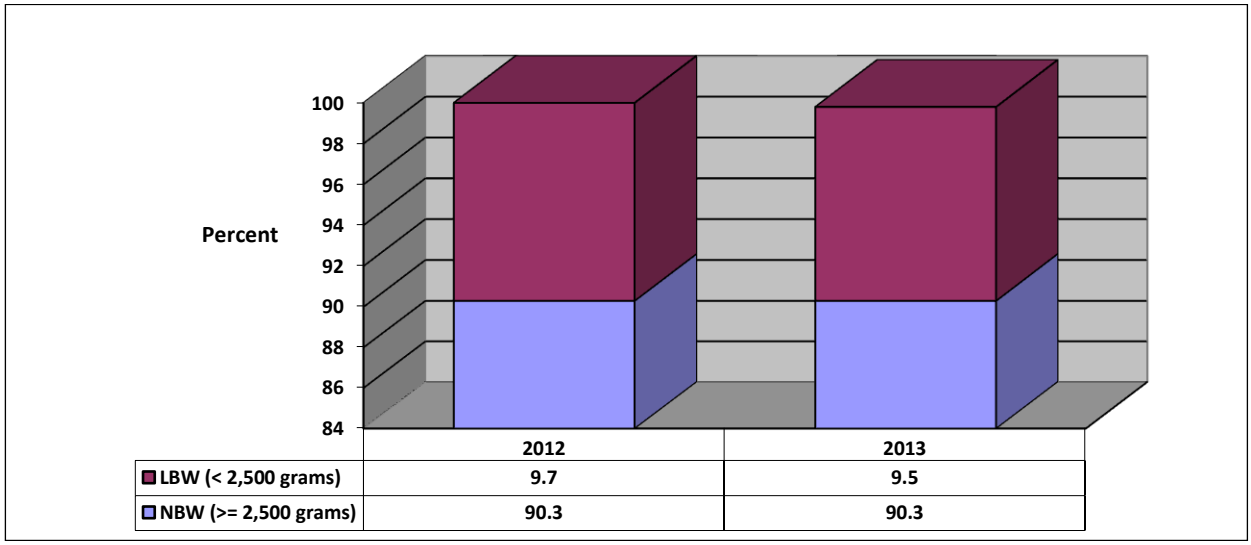
Age[1] (in years)	DC 2012	DC 2013
10-14	0.5	1.6
15-19	38.5	32.1
15-17	28.6	23.9
18-19	45.2	37.4
20-24	56.0	54.0
25-29	47.7	44.4
30-34	79.1	80.5
35-39	72.3	68.7
40-44	24.3	21.1
45-49[2]	1.8	2.1

Note: 1. Rate per 1,000 women in each age group category.
2. Rate computed by related the number of births to women aged 40-44 years.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.6 Birth Weight

The largest live birth weight babies recorded in 2013 with 6,169 grams and the smallest with 165 grams. However, birth weight of babies did not have any changes marginal during the reporting periods. Proportion of normal birth weight babies (2500 grams and over) remained 90.3 percent of all births in 2012 and 2013. In terms of number of normal birth weight babies decreased from 8,462 to 8,367 births in 2012 and 2013 respectively. Low birth weight babies (less than 2500 grams) decreased and comprised of 9.7 percent (906) and 9.5 percent (876) of total births during the same period (Table 2 and Figure 6). Both number and proportion of very Low birth weight babies (less than 1500 grams) increased and accounted for 1.8 percent (164) in 2012 and 2.5 percent (228) in 2013 (Table 2).

Figure 6: Births by Birth Weight: District of Columbia, 2012-2013



Note: 1. LBW means low birth weight.
2. NBW means normal birth weight.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

2.6.1 Birth Weight by Ward

As shown in Table 9, in 2012 Ward 2 and 3 recorded the largest proportion of normal birth weight (NBW) babies 92.7 percent (596 and 760) and 94.9 percent (782) in Ward 3 in 2013, while Ward 7 had the lowest proportion 85.0 percent (982) in 2012 and 85.9percent (1,062) in 2013. For low birth weight (LBW) babies, Ward 7 accounted 15.0 percent (173) with the largest proportion of births in 2012 and 13.8 percent (170) in 2013. The smallest proportion of low birth weight (LBW) babies accounted in Ward 2 and 3 with 7.3percent (47 and 60) in 2012 and 4.7 percent (39) in Ward 3 in 2013. Of the very low birth weight (VLBW-less than 1500 grams) babies born in the District, Ward 7 had the highest proportion of 3.2 percent (36) in 2012 and 3.7 percent (61) in 2013 respectively. The smallest proportion of very low birth weight (VLBW) babies comprised of the Ward 2 with 0.8 percent (5) in 2012 and Ward 3 with 0.7 percent (6) in 2013.

Table 9: Birth Weight by Ward: District of Columbia, 2012-2013

	Birth Weight (in grams) 2012					
WARD	>= 2500 NBW	%	< 2500 LBW	%	<1,500 VLBW	%
DC	8,462	90.3	906	9.7	164	1.8
WARD 1	1,095	91.6	101	8.4	18	1.5
WARD 2	596	92.7	47	7.3	5	0.8
WARD 3	760	92.7	60	7.3	8	1.0
WARD 4	1,362	92.1	117	7.9	22	1.5
WARD 5	1,010	90.8	102	9.2	23	2.1
WARD 6	1,275	92.1	101	7.9	14	1.1
WARD 7	982	85.0	173	15.0	36	3.2
WARD 8	1,471	87.8	204	12.2	38	2.3

	Birth Weight (in grams) 2013					
WARD	>= 2500 NBW	%	< 2500 LBW	%	<1,500 VLBW	%
DC	8,367	90.3	876	9.5	228	2.5
WARD 1	979	92.3	81	7.6	19	1.8
WARD 2	611	91.6	53	8.0	6	0.9
WARD 3	782	94.9	39	4.7	6	0.7
WARD 4	1,252	91.1	120	8.7	37	2.7
WARD 5	1,061	89.8	116	9.8	30	2.5
WARD 6	1,155	91.7	102	8.1	24	1.9
WARD 7	1,062	85.9	170	13.8	45	3.6
WARD 8	1,454	88.2	194	11.8	61	3.7

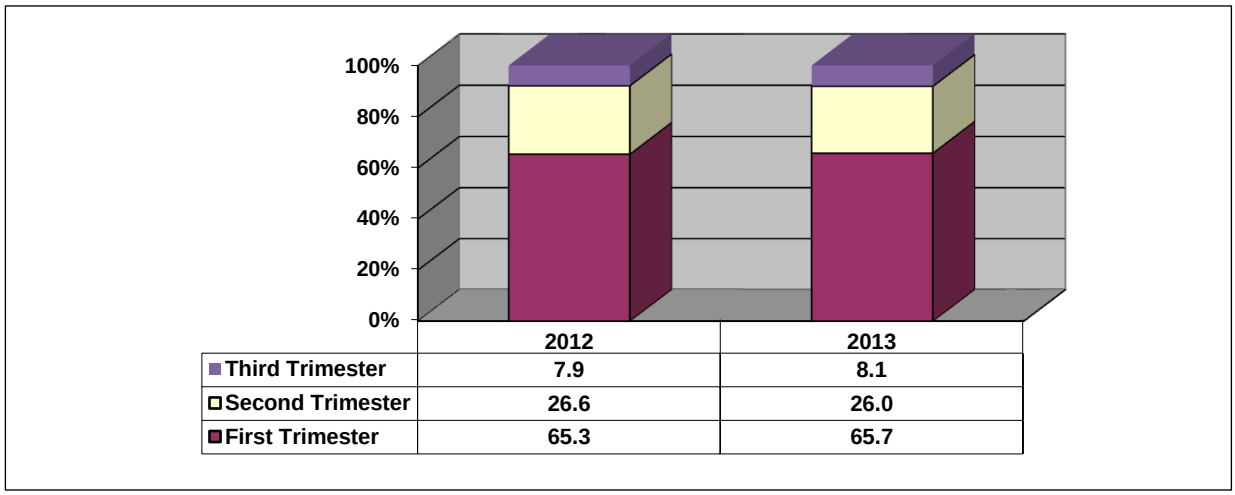
Note: 1. NBW means normal birth weight. 2. LBW means low birth weight. 3. VLBW means very low birth weight.
4. DC total does not match with due to missing ward of residence or birth weight.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

3.0 MATERNAL AND INFANT HEALTH CHARACTERISTICS

3.1 Prenatal Care

The proportion of births to DC women who initiated prenatal care during their first trimester was 65.3 percent (5,508) in 2012 and increased to 65.7 percent (5,286) in 2013(Table 2 & Fig.7). The proportion of birth to women who initiated prenatal care during 2nd trimester had decreased a little (26.0 vs 26.6) in 2013 over 2012. However, women initiated prenatal care in 3rd trimester increased 2.5 percent (8.1 vs 7.9) in 2013 than 2012.

Figure 7: Prenatal Care by Trimester: District of Columbia, 2012-2013



	2012	2013
Third Trimester	7.9	8.1
Second Trimester	26.6	26.0
First Trimester	65.3	65.7

Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

3.1.1 Prenatal Care by Ward

The largest proportion of 1st trimester prenatal care visit accounted in Ward 3 (79.9 percent or 597 and 82.2 percent or 605) in 2012 and 2013 respectively, followed by Ward 2 (75.6 percent or 447 and 78.3 percent or 458) in 2012 and 2013. Residents of Ward 8 accounted the lowest proportion of prenatal care visit during the first trimester with 55.0 percent (831) in 2012 and 53.5 percent (542) in 2013. Over all prenatal care visits decreased during 2nd trimester in 2013 compared to 2012 period (Table 10). However, during 2nd trimester the proportion of prenatal care increased in the Wards 1, 5, and 7 and the largest proportion increased in Ward 7 (29.6 percent or 301) in 2013 compared to 2012 (27.1 percent or 268). The lowest proportions observed in Ward 3 (16.3 percent or 122 and 15.7 percent or 92) during the same reporting period. In third trimester Ward 1, 6, 7 and 8 experienced increased prenatal care visits and the largest proportion was observed among women from Ward 1 (9.3 percent or 81) in 2013 compared to (8.1 percent or 89) 2012 (Table 10).

Table 10: Prenatal Care by Trimester by Ward: District of Columbia, 2012-2013

WARD	Prenatal Care -2012					
	First Trimester	**%**	Second Trimester	%	Third Trimester	%
DC	5,508	65.3	2,244	26.6	665	7.9
WARD 1	754	68.7	252	23.0	89	8.1
WARD 2	447	75.6	105	17.8	36	6.1
WARD 3	597	79.9	122	16.3	27	3.6
WARD 4	822	61.7	374	28.1	133	10.0
WARD 5	625	63.1	268	27.1	92	9.3
WARD 6	867	73.3	244	20.6	71	6.0
WARD 7	559	55.6	358	35.6	88	8.8
WARD 8	831	55.0	517	34.9	127	8.7

WARD	Prenatal Care -2013					
DC	5,286	65.6	2,097	26.0	648	8.1
WARD 1	624	66.6	224	23.9	87	9.3
WARD 2	458	78.3	92	15.7	34	5.8
WARD 3	605	82.2	103	14.0	26	3.5
WARD 4	808	65.9	300	24.5	117	9.5
WARD 5	620	61.0	301	29.6	92	9.1
WARD 6	835	73.6	228	20.1	70	6.2
WARD 7	542	53.5	374	36.9	92	9.1
WARD 8	784	56.6	471	34.0	127	9.2

Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.
D.C total does not match due to missing ward and prenatal care visits.

3.2 Plurality

The proportion of singleton births 96.4 percent (8,926), slightly decreased in 2013 from 96.5 percent (9,025) in 2012. Number of multiple births was exactly the same number (329) in 2013 as it was in 2012. However, the proportion of multiple births increased to 3.6 percent of all births in 2013 compared to 3.5 percent in 2012 (Tables 2 and 11).

Table 11: Births by Plurality: District of Columbia, 2011-2012

Plurality	DC		DC	
	2012		2013	
	Number	percent	Number	percent
Singleton Births	9,025	96.5	8,926	96.4
Twins	329	3.5	329	3.6
Triplets & quadruplets	0	0.0	0	0.0

*Includes quadruplets and plus. Missing not included
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

3.2.1 Plurality by Ward

Irrespective of Wards single birth comprised of 96.5 percent (9,025) in 2012 and 96.4 percent (8,926) in 2013. Single births were fairly evenly distributed across Wards with largest proportion of births accounted 97.8 percent (1,444) in Ward 4 in 2012 and 97.7 percent (1,154) in Ward 5 in 2013. The lowest proportion of single birth occurred in Ward 2 (94.7 vs. 94.5 percent) in 2012 and 2013. The highest proportion of multiple births accounted 5.3 percent (34) and 5.4 percent (36) in Ward 2 in 2012 and 2013 respectively. The lowest proportion of multiple births comprised of 2.2 percent (33) in Ward 4 and 2.3 percent (24 and 27) in Ward 1 and 8 during the same period (Table 11.1).

Table 11.1: Plurality of birth by Ward: District of Columbia, 2012-2013

	Plurality of birth 2012				Plurality of birth 2013			
Ward	Single	%	Plural	%	Single	%	Plural	%
DC	9,025	96.5	329	3.5	8,926	96.4	329	3.6
Ward 1	1,153	96.4	43	3.6	1,036	97.6	24	2.3
Ward 2	608	94.7	34	5.3	630	94.5	36	5.4
Ward 3	778	95.0	41	5.0	791	96.0	32	3.9
Ward 4	1,444	97.8	33	2.2	1,310	95.3	63	4.6
Ward 5	1,071	96.5	39	3.5	1,154	97.7	27	2.3
Ward 6	1,214	95.4	59	4.6	1,215	96.5	43	3.4
Ward 7	1,110	96.4	42	3.7	1,181	95.6	52	4.2
Ward 8	1,635	97.7	38	2.3	1,597	96.9	52	3.2

Note: DC total does not match due to missing ward of residence or plurality.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

3.3 Prematurity

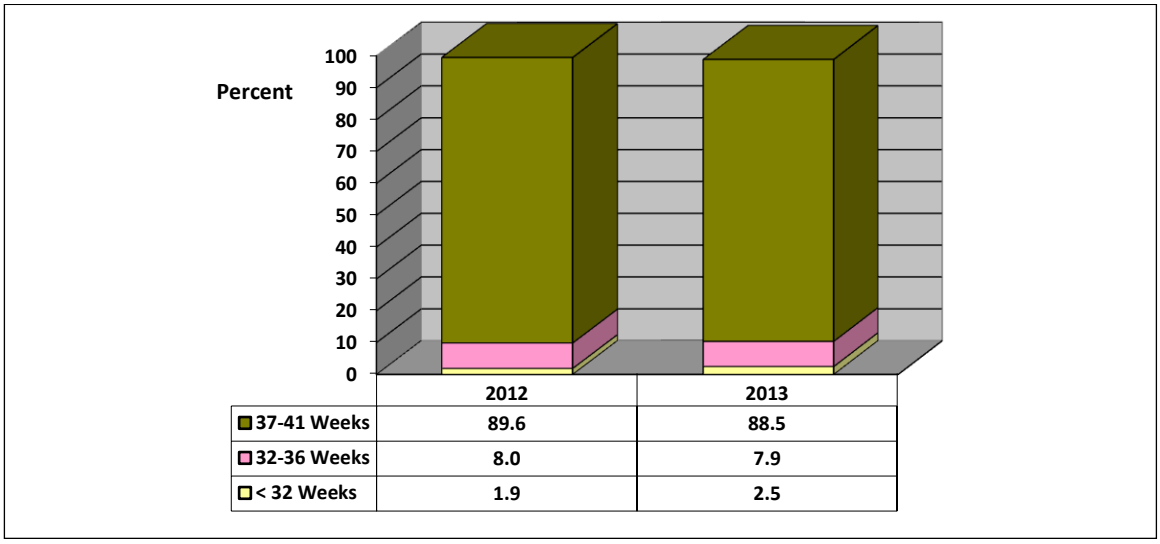
Premature births (with a gestation of less than 37 weeks) increased 5.0 percent during the reporting period, representing 9.9 percent (926) of all births born prematurely in 2012 compared to 10.4 percent (960) in 2013 (Tables 12 and Figure 8). Infants born at less than 32 weeks of gestation or very early premature births increased significantly ($p<0.05$), which was 1.9 percent (175) in 2012 and 2.5 percent (233) in 2013. The proportion of late premature births slightly declined (8.0% vs.7.9%) during the same period. The proportion of infants born full term or after 36 weeks of gestation decreased 1.2 percent in 2013 over 2012. The rates were 89.6 percent (8,378) in 2012 compared to 88.5 percent (8,195) in 2013. Infants born after 42+ weeks of gestation, was less than 1.0 percent irrespective of the reporting periods (Table 12).

Table 12: Births by Prematurity: District of Columbia, 2012-2013

Prematurity	DC		DC	
	2012		2013	
	Number	percent	Number	percent
<32 Weeks	175	1.9	233	2.5
32-36 Weeks	751	8.0	727	7.9
<37 weeks	926	9.9	960	10.4
37-41 Weeks	8,378	89.6	8,195	88.5
42 + Weeks	44	0.5	52	0.5
37+ Weeks	8,422	90.1	8,247	89.0

Note: Total does not match with births due to unreported gestational age.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

Figure 8: Births by Prematurity: District of Columbia, 2012-2013



Note: Percentage does not add to 100 due to unreported gestational age.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

3.3.1 Prematurity by Ward

The proportion of premature births (less than 37 weeks gestation) of DC women increased in Wards 4, 5, 6 and 7 in 2013 compared to the year 2012 (Table 13). Ward 7 had higher proportion of premature births with 16.0 percent (198) in 2013 compared to 15.2 percent (175) in 2012. Ward 8 with 11.9 percent (196) in 2013 and 12.2 percent (204) follow the 2nd highest premature births in 2012. The lowest proportion of premature births accounted in Ward 2, (7.0 percent or 45) in 2012 and (6.3 percent or 42) in 2013. Full term births (37-41 weeks gestation) increased in Wards 1, 2 and 3 in 2013 compared to the year 2012. Ward 6 comprised the largest proportion of full term births (91.8 percent or 1,169) in 2012 and Ward 2 had the highest proportion (92.4 percent or 616) in 2013. Ward 7 had the lowest proportion of full term births (84.7 percent or 975 and 82.9 percent or 1,024) in 2012 and 2013. Births occurred beyond 42 weeks gestation comprised less than 1.0 percent of all births except Ward 2 in 2012. The highest number of this category occurred in Ward 2 (1.4 percent or 9) in 2012 and Ward 4 (0.9 percent or 12) in 2013. The lowest number was in Ward 7 (0.1 percent or 1) in 2012 and in Wards 3, 7, 8 (0.4 percent or 3, 5, 6) in 2013 (Table 13).

Table 13: Prematurity of Births by Ward: District of Columbia, 2012-2013

Prematurity 2012						
WARD	**< 37**	**%**	**37-41**	**%**	**42 +**	**%**
DC	926	9.9	8,378	89.6	44	0.5
WARD 1	110	9.2	1,080	90.3	6	0.5
WARD 2	45	7.0	587	91.6	9	1.4
WARD 3	69	8.4	744	91.0	5	0.6
WARD 4	127	8.6	1,339	90.8	8	0.5
WARD 5	96	8.7	1,009	90.9	5	0.5
WARD 6	99	7.8	1,169	91.8	6	0.5
WARD 7	175	15.2	975	84.7	1	0.1
WARD 8	204	12.2	1,464	87.6	4	0.2
Prematurity 2013						
DC	960	10.4	8,195	88.5	52	0.5
WARD 1	91	8.6	959	90.4	6	0.6
WARD 2	42	6.3	616	92.4	5	0.8
WARD 3	61	7.4	757	91.9	3	0.4
WARD 4	126	9.2	1,231	89.5	12	0.9
WARD 5	115	9.7	1,049	88.8	7	0.6
WARD 6	130	10.3	1,117	88.7	8	0.6
WARD 7	198	16.0	1,024	82.9	5	0.4
WARD 8	196	11.9	1,431	86.8	6	0.4

Note: Total does not add due to unreported gestational age or missing wards.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

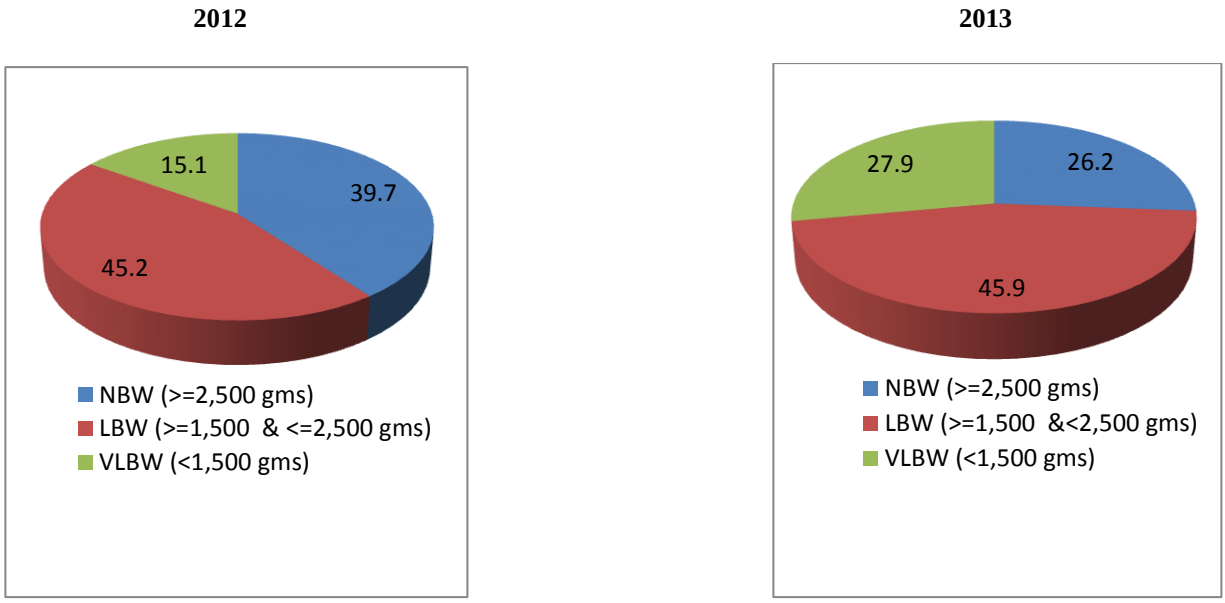
3.3.2 Teen age (15-19 years) Births and Prematurity

Table 14: Teen age Births by Prematurity and Birth Weights: District of Columbia, 2012-2013

Prematurity/ Gestational Age	2012				2013			
	NBW	LBW	VLBW	Total	NBW	LBW	VLBW	Total
37+ Weeks	680 (95.2)	34 (4.8)	0 (0.0)	714 (90.4)	533 (93.4)	38 (6.7)	0 (0.0)	571 (89.6)
<37 Weeks	29 (39.7)	33 (45.2)	11 (15.1)	73 (9.2)	16 (26.2)	28 (45.9)	17 (27.9)	61 (9.6)
Total Teen Births	711	68	11	790*	552	68	17	637*

Note: *Total teen birth does not match due to unreported gestational age.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

Fig 9: Teen age Births, Prematurity (<37 Weeks gestation) and Birth Weights: District of Columbia, 2012 and 2013



Birth to teen aged women (15-19 years) declined significantly (P<0.05) by about 18.0 percent from 8.4 percent (790) in 2012 to 6.9 percent (637) in 2013 (Table 2). However, Premature births (<37 weeks gestation) to teen aged mothers increased by 4.3 percent from 9.2 percent (73) in 2012 to 9.6 percent (61) in 2013 (Table 14). Teen mothers experienced significantly (p<0.05) higher percentage of very low birth weight babies (27.9 vs. 15.1 percent) in 2013 compared to 2012. The proportions of low birth weight babies increased by 1.5 percent (45.2 vs 45.9), and at the same time normal birth weight babies decreased significantly (p<0.05) by 34.0 percent of (26.2 vs 39.7) in 2013 over 2012 (Fig 9).

3.3.3 Teen age (15-19 years) Births by Ward

Number of birth among teen agers declined all the Wards. However, the proportion of births among teen agers in Wards 1, 4 and 8 increased in 2013 and other Wards it decreased. Ward 8 recorded the largest proportion of teen births in all times and accounted 33.5 percent (265) and 35.4 percent (225) in 2012 and 2013, followed by Ward 7 (24.3 percent or 292 and 23.4 percent or 149), Ward 5 (14.3 percent or 113 and 12.9 percent or 82), Ward 4 (9.8 percent or 77 and 11.3 percent or 72) respectively. Ward 3 recorded lowest proportion (0.4 and 0.3 percent) followed by Ward 2, (1.8 and 1.4 percent) during the same period (Figures 11 & 12).

3.4 Method of Delivery

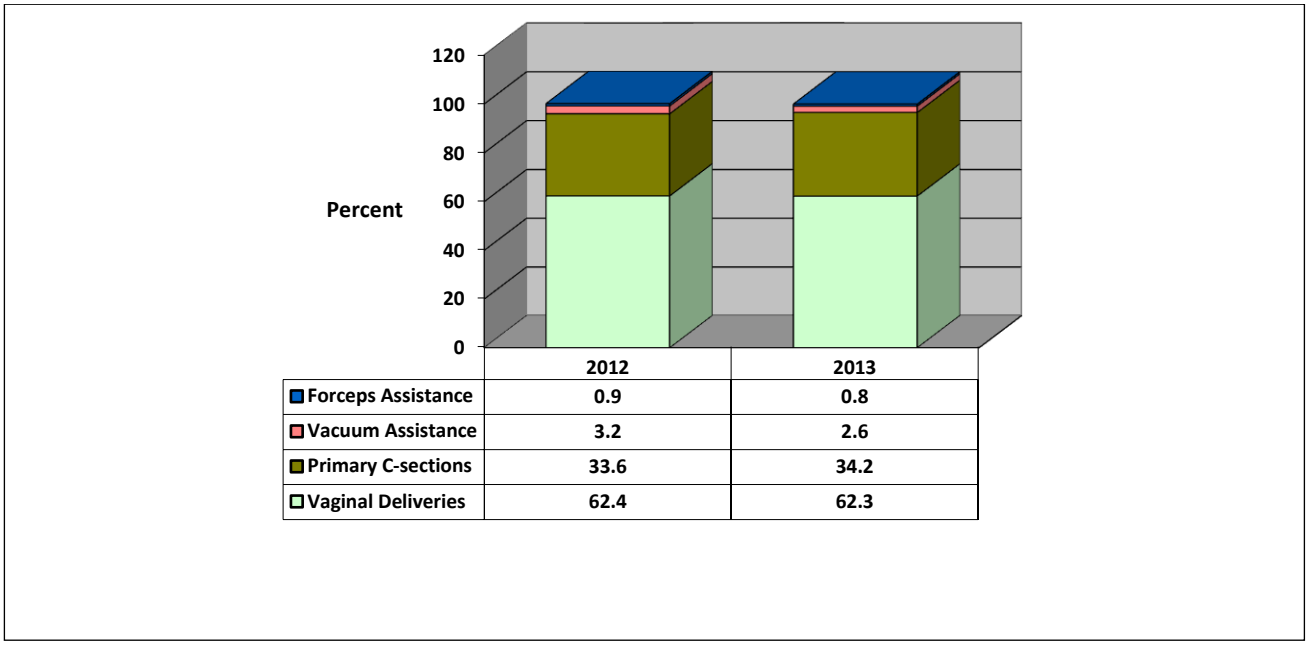
Proportion of Vaginal/Spontaneous deliveries did not change much but, the number of vaginal deliveries declined and accounted 62.4 percent or 5,843 in 2012 of total deliveries and 62.3 percent or 5,772 in 2013 (Table 14 and Figure 9). C-section deliveries increased about 2.0 percent from 33.6 percent (3,150) in 2012 to 34.2 percent (3,172) in 2013. Women who were delivered by vacuum assistance decreased and accounted for 3.2 percent (295) in 2012 compared to 2.6 percent (236) in 2013. The number and percent of forceps deliveries accounted 81 and 76 with 0.9 percent in 2012 and 0.8 percent in 2013 respectively (Table 14).

Table 15: Births by Method of Delivery: District of Columbia, 2012-2013

Method of Delivery	DC		DC	
	2012		2013	
	Number	Percent	Number	Percent
Vaginal	5,843	62.4	5,772	62.3
Primary C-sections	3,150	33.6	3,172	34.2
Vacuum	295	3.2	236	2.6
Forceps	81	0.9	76	0.8
Total Births	9,370	100.0	9,264	100.0

Note: Percentage does not add to 100 due to multiple selections of method of delivery (e.g., a mother can have a virginal delivery combined with vacuum assistance) and unknown information.
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

Figure 10: Births by Method of Delivery: District of Columbia, 2012-2013



Note: Percentage does not add to 100 due to multiple selections of method of delivery (e.g., a mother can have a virginal delivery combined with vacuum assistance).
Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

3.5 Potential Risk Behaviors

3.5.1 Tobacco

Table 16, shows the self reported proportion of women smoked during pregnancy. Both numbers and percentages of women smoked during pregnancy declined significantly ($p<0.05$). In 2012, among all births 3.5 percent (330) women smoked during their pregnancy period compared to 2.8 percent (261) smoked in 2013.

Table 16: Births by Tobacco Use: District of Columbia, 2012-2013

Tobacco	DC		DC	
	2012		2013	
	Number	percent	Number	percent
Tobacco Use*	330	3.5	261	2.8

Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.
* Women smoked in 3 months prior to pregnancy are not included in the table.

Figure 11: District of Columbia Teenage Births by Wards, 2012

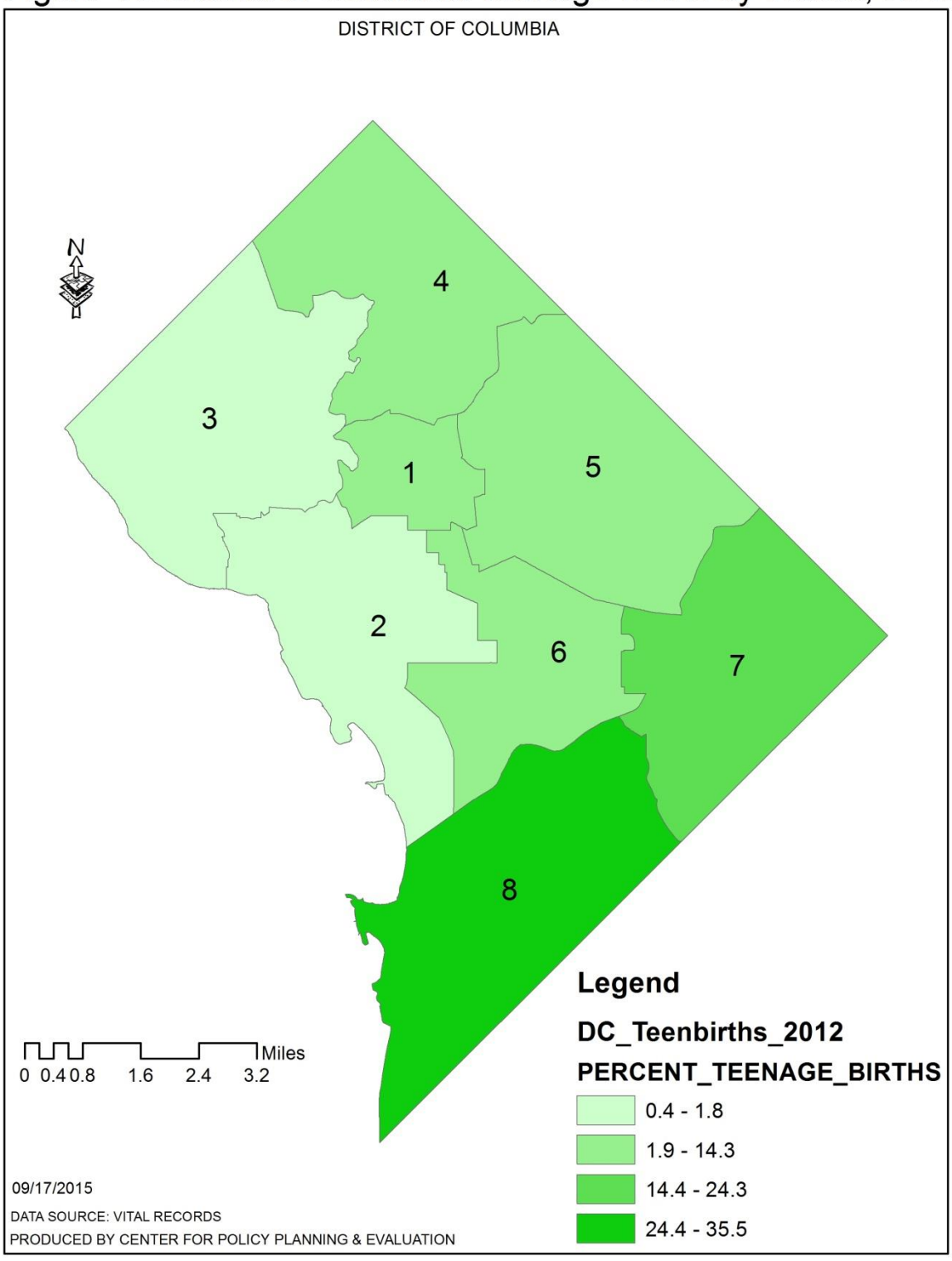
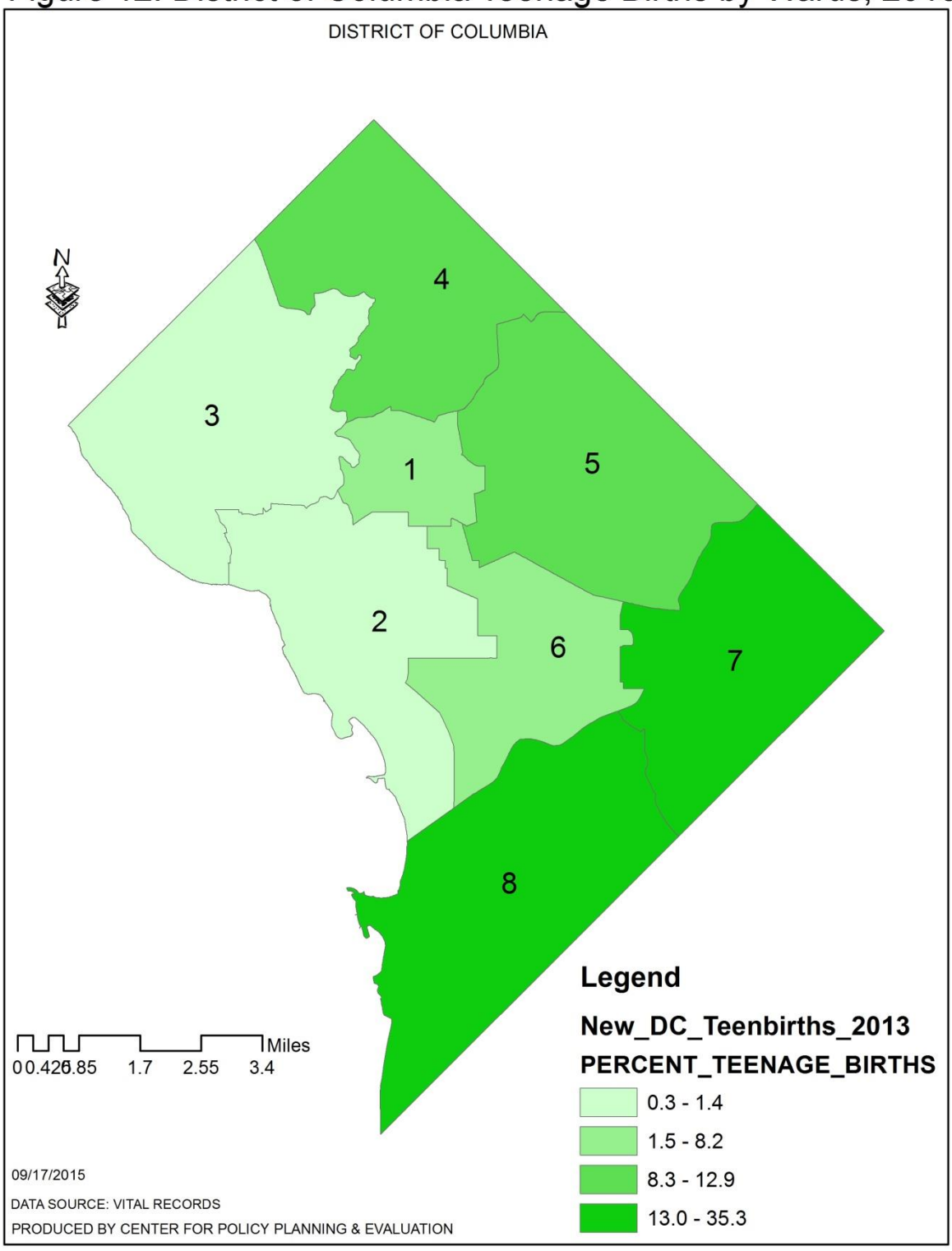


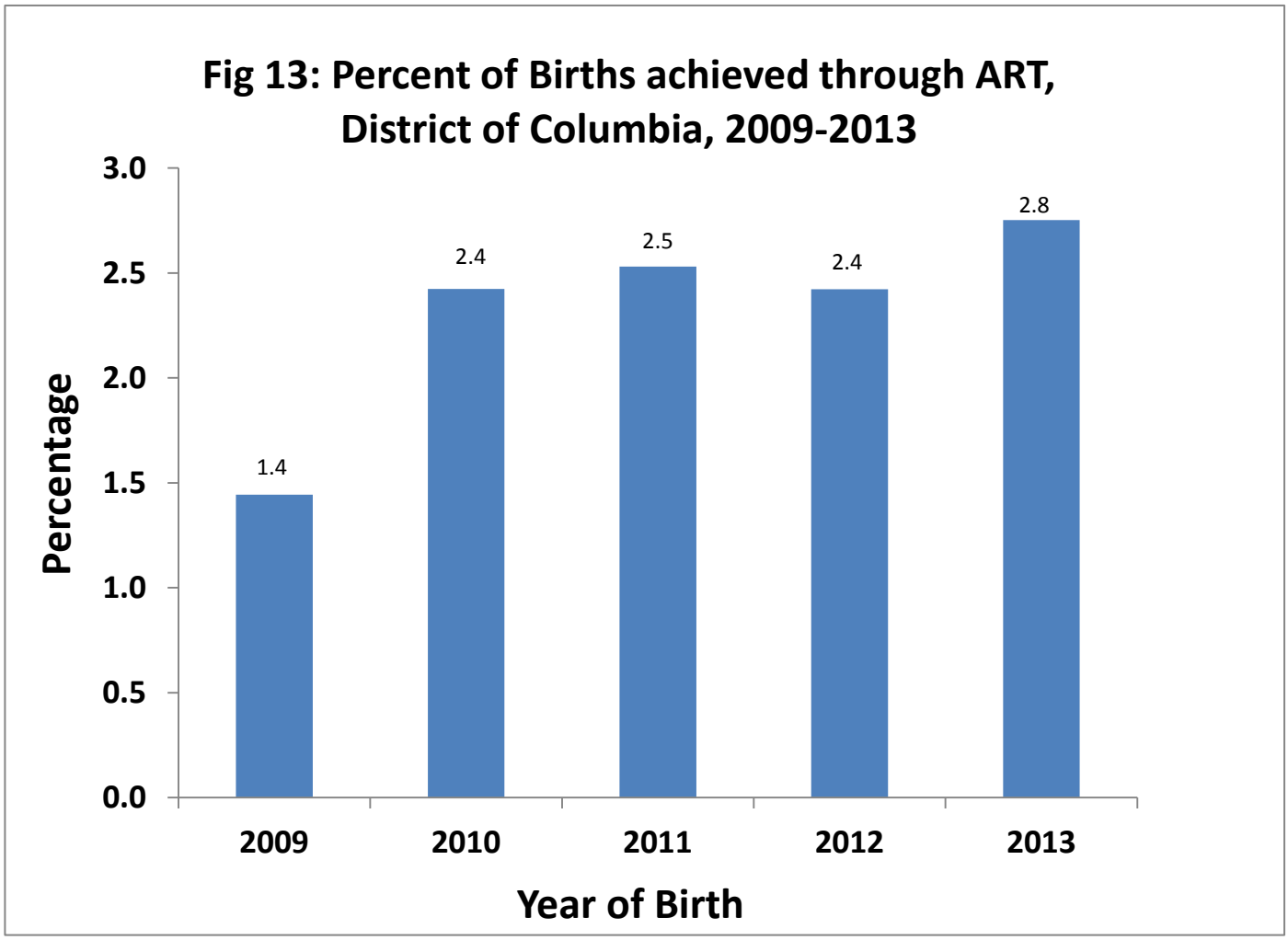
Figure 12: District of Columbia Teenage Births by Wards, 2013



4.0 BIRTHS ACHIEVED THROUGH ASSISTED REPRODUCTIVE TECHNOLOGY (ART)

4.1 Definition and birth trends in ART, District of Columbia 2009-2013

According to CDC, the definition of ART includes all fertility treatments in which both eggs and sperm are handled. In general, ART procedures involve surgically removing eggs from a woman's ovaries, combining them with sperm in the laboratory, and returning them to the woman's body or donating them to another woman. They do not include treatments in which only sperm are handled (i.e., intrauterine—or artificial—insemination) or procedures in which a woman takes medicine only to stimulate egg production without the intention of having eggs retrieved[17]. To overcome the problem of infertility ART has increased steadily in the United States so as to the District of Columbia. Women who undergo ART procedures pose substantial risks to both mothers and infants, including pregnancy complications, multiple births, preterm delivery, and low birth weight. According to the Centers for Disease Control and Prevention (CDC), ART accounted for 1.4 percent of US births in 2009. However, the proportion of ART births in the District of Columbia was greater than 3 percent of all infants born in the same year[17]**.** The overall percentage of births resulting from ART procedure in 2009-2013 in DC was 2.3 which was 1.4 percent in 2009. Percentage of ART births increased double from 1.4 percent in 2009 to 2.8 percent in 2013 (Figure 13).



Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

4.2 Characteristics of mothers who underwent ART procedure in 2009-2013

4.2.1 Demographic Characteristics of Mothers

Among ART conceived women, more than two-third of them (~68 percent) age 35 years or older underwent ART procedure for achieving pregnancy throughout the periods compared to 20 percent of the non-ART groups and the difference were significant ($p<0.01$). More than 28 percent of ART birth occurred among women aged 40 years and older. A higher proportion of White mothers (83 percent) had ART births compared to non-White (17 percent) during the reporting periods and the difference was highly significant ($p<0.01$). The percentage of ART conceived births was significantly ($p<0.01$) higher among non-Hispanic women compared to Hispanic (94 percent vs. 6 percent). Less than half (45.2 percent) of births occurred in 2009-2013 to married women, however, a significantly ($p<0.01$) higher percentage (91.1 percent) of married women underwent ART conceived pregnancy. Higher proportion of women with no previous births were more likely to underwent ART procedure (64 percent) compared to women who had previous live births (36 percent) and the difference was significant ($p<0.01$) (Table 17 & Figure 14).

4.2.2 Pregnancy Characteristics of Mothers

ART achieved pregnancy had some adverse effect on pregnancy characteristics. Transfer of multiple embryos for In Vitro Fertilization (IVF) was an important advance to improve ART procedure. However, it was observed that the risks are higher for multiple births than pregnancies with singleton. Examples include Caesarean sections, gestational diabetes, high blood pressure, pre-eclampsia, anemia, and postpartum hemorrhaging. High incidence of multiple births among women using ART could be attributed to women receiving transfers of two or more embryos during ART, as the implantation of multiple embryos can increase the chance of a successful birth. During the reference period, significantly ($p<0.01$) higher proportion of multiple births (34 percent) occurred among women who had ART conceived pregnancies compared to non-ART or general birth women (3 percent). Proportion of preterm birth (<37 weeks gestation) was more than two times (22.9 percent vs. 10.3 percent) higher among women who had ART conceived births than non-ART. Overall, ART conceived infants represented approximately 6 percent of all low birth weight. However, the proportion of low birth weight (<2,500 grams) babies was significantly ($p<0.01$) higher among women with ART births (24 percent) compared to non-ART group (10 percent). C-section delivery was significantly ($p<0.01$) higher among births conceived through ART procedure (54 percent) compared to non-ART (33percent). Government own insurance coverage of ART was almost non existence in DC. About 99 percent ART delivery cost were covered by private insurance or mother's out-of-pocket which suggest that ART conceived mothers had higher socio-economic status (Table 17 & Figure 15).

Table 17: Number and percentage of ART & Non-ART births occurred in the District of Columbia by Characteristics of Mothers, 2009-2013

Characteristics	ART	Non-ART
Category	1069(2.3)	45018(97.7)
Mother's Age		
<35 Years	346(32.4)	35,719(79.1) *
35-39 Years	418 (39.2) **	7,373(16.4)
40+ Years	305(28.4) **	1,926(4.3)
Mother' Race		
White	873(83.1) **	13,231(30.6)
Black/Others	196(16.9)	31,787(69.4) *
Mother's Ethnicity		
Non-Hispanic	990(93.9) **	37,843(84.9)
Hispanic	64(6.1)	6,756(15.1) *
Race & Ethnicity †		
NHW	814(77.2) **	12,092(27.1)
NHB/NHO	176(16.7)	25,717(57.7) *
HISPANIC	64(6.1)	6,756(15.1) *
Marital Status		
Married	972(91.3)**	19,939(44.3)
Unmarried	93(8.7)	24,946(55.7) *
Previous Live Births		
No	679(63.9) **	20,811(46.6)
Yes	383(36.1)	23,842(53.4) *
Multiple Births		
Plural	358(33.5) **	1,414(3.1)
Single	711(66.5)	43,563(96.9) *
Gestational Weeks		
<37 Weeks	245(22.9) **	4,589(10.3)
37+ Weeks	824(77.1)	40,202(89.7) *
Birth Weight		
<2500 grams	256(24.0) **	4,361(9.7)
2500+ grams	813(76.0)	40,598(90.3) *
Method of Delivery		
C-Section	578(54.1) **	14,699(32.7)
Vaginal/others	491(45.9)	30,262(67.3) *
Payment for Delivery		
Medicaid	15(1.4)	20,047(46.3) *
Private/others	1,051(98.6)**	23,292(53.7)

Note: Total varies because of missing numbers in different categories

†NHW: Non-Hispanic White; NHB: Non-Hispanic Black; NHO: Non-Hispanic Others.

* Non-ART births were significantly higher at $p<0.01$

** ART births were significantly higher at $p<0.01$

Source: Data Management and Analysis Division, Center for Policy, Planning, and Evaluation, DC Department of Health.

Figure 14: Percent of ART and non-ART Births by Demographic Characteristics of Mothers, District of Columbia 2009-2013

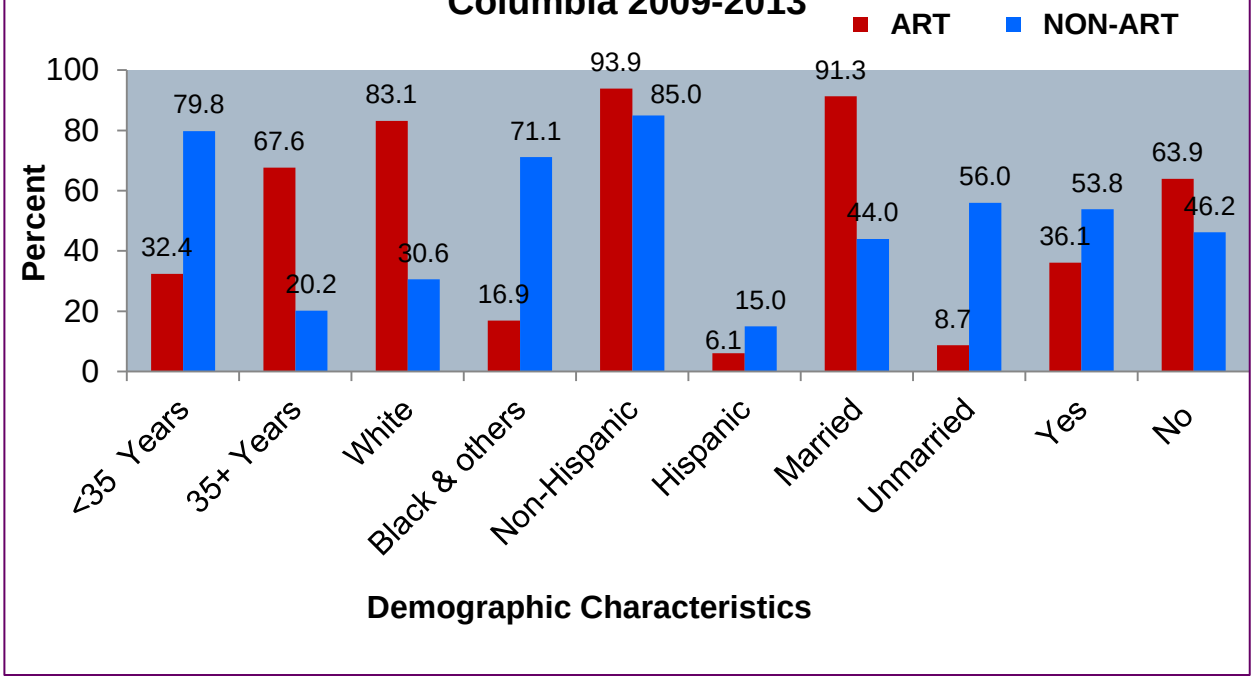
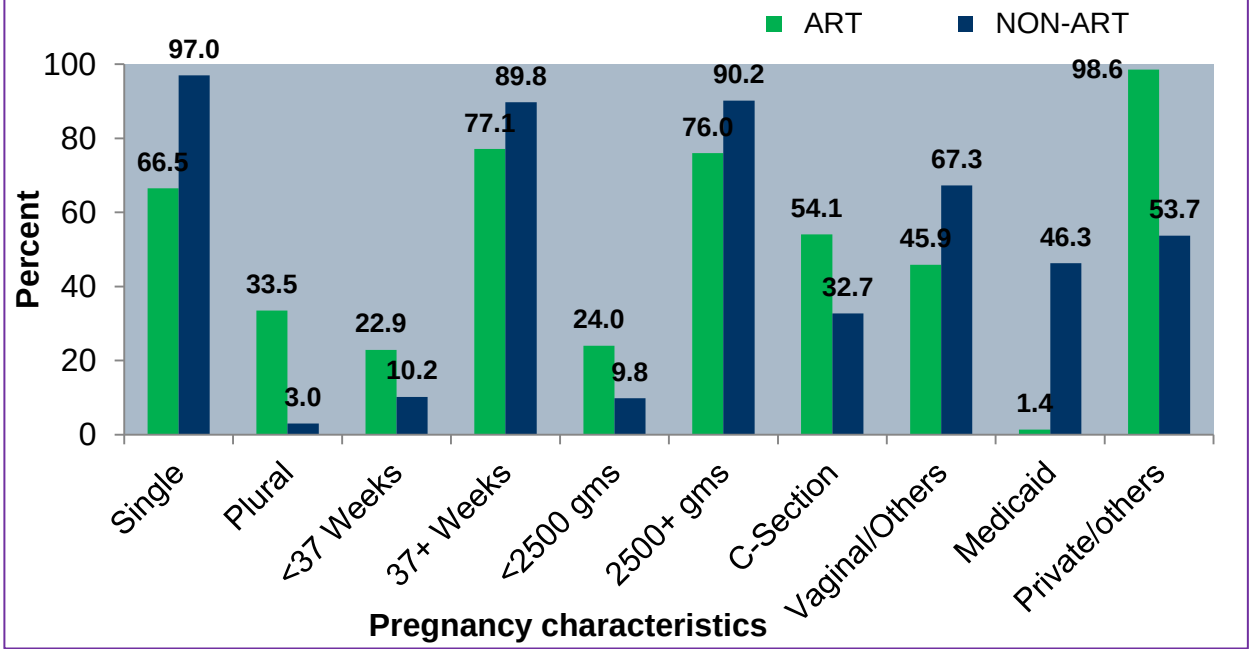


Figure 15: Percent of ART and non-ART Births by Pregnancy Characteristics of Mothers, District of Columbia 2009-2013



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VITAL STATISTICS TECHNICAL NOTES

Definitions

Prenatal Care Visit – For this report, care initiated/received women during her pregnancy from an obstetrician or midwife within 13 weeks of conception is considered as first trimester prenatal care visit and care receive within 14 to 27 weeks of gestation is considered to be the second trimester visit and the care receive within 28 through 45 weeks of gestation period termed as third trimester visit. Women, who did not receive any pre natal care, termed as no visit[3].

Birth Weight - The weight of the fetus or infant at the time of delivery.

Gestational Period - Number of weeks elapsed between the first day of the last menstrual period and date of delivery or date of pregnancy termination. The term gestational period is interchangeable with weeks of gestation, gestational age, and duration of pregnancy. This report uses the physician's estimate of gestational age[1].

Live Birth - Every product of conception that gives a sign of life after birth, regardless of the length of the pregnancy, is considered a live birth. This concept is included in the definition set forth by the World Health Organization in 1950 and revised in 1988 by a working group formed by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists. A live birth is the complete expulsion or extraction from its mother of a result of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached[1].

Low Birth Weight - A weight at birth of under 2,500 grams or 5 lbs., 8 oz.

Occurrence Data - Vital statistics compiled on the basis of where the vital event actually occurred.

Plurality - The number of siblings born as the result of a single pregnancy (e.g., twins, triplets).

Premature Birth - A live birth weighing 2,500 grams ($5\frac{1}{2}$ pounds) or less. If birth weight is not stated, length of gestation (under 37 weeks) is used.

Preterm Birth – Birth before 37 completed weeks of gestation.

Residence Data - Vital statistics compiled on the basis of the usual place of residence of the mother regardless of where the birth occurred.

Very Low Birth Weight - A weight at birth of less than 1,500 grams or 3 lbs., 5 oz.

Rates and Ratios

The impact of chance variation must be considered in evaluating categories with small frequencies. For example, a small change in the number of births by racial/ethnic groups in a county or ward—as is the case in the District—can disproportionately affect the fertility rate for that county. Rates for cities and counties, therefore, require special consideration. Regional and state rates, with larger frequencies, provide more stable rates.

Rates used in this report are calculated with the 2008 and 2009 estimated population figures from the U.S. Department of Commerce, Bureau of the Census[4].

Birth Rate (Crude) = (Number of live births / Population) X 1,000

Fertility Rate = (Number of live births to women aged 15-44/ Number of women aged 15-44) X 1,000

Teenage Fertility Rate = (Number of live births to women aged 15-19/ Number of women aged 15-19) X 1,000

Source of Data

Data shown in this report for 2008-2011 are based on 100 percent of the resident birth certificates in the District of Columbia (DC) and DC resident births that occurred in other states through the inter-state exchange agreement. Data for DC were collected and reported using the 1989 revision of the U.S. Standard Birth Certificate.

Race and Hispanic origin

As of January 1, 2003, federal programs were required by the U.S Office of Management and Budget (OMB) to adopt revised standards for collecting and reporting racial and ethnic status. The U.S Census Bureau was one of the first federal agencies to implement the revised standard, incorporating in the 2000 Decennial Census a format for the race question that included 15 checkbox items and 3 write-in lines, plus the instruction to 'Mark one or more races to indicate what this person considers himself/herself to be". In this report NCHS procedures for Multiple-Race and Hispanic Origin code is used, that facilitate coding and processing of multiple-race/Hispanic origin data in a uniform manner.

NCHS has developed a coding dictionary around the NCHS 3-digit code list for Hispanic origin by inserting various misspellings, abbreviation, etc to automate the coding of literals as much as possible. A bridging process is being applied to the vital record race data within the NCHS edit program. The 2-digit Bridge Multiple Race code (RACEBRG) is a record indicating either the single race reported (code 01 to 15) or the bridge race – specific to the old race standard- for multiple races reported (21 to 24) as White, Black, American Indian or Alaska Native, Asian or Pacific Islander respectively[16].

Population bases for computing rates

2011 Census Population and estimates were used to compute birth rates for DC. Birth rates shown in this report for 2011 and 2012 based on the 2011 Census and estimated populations that were consistent with the 2011 census levels[15].

Computing rates

Rates in this report are on an annual basis per 1,000 populations residing in the District of Columbia.

Statistical significance

When estimates of variability for the data values are available, the statistical significance of the difference between the baseline and the most recent rate or percent for a subgroup can be tested directly using a *Z* statistic[4].

$$Z = (R_{mr} - R_b) / \sqrt{SE_{mr} + SE_b}$$

Where:

R_{mr} = rate or percent based on the most recent data,

R_b = rate or percent at the baseline,

SE_{mr} = standard error of the most recent data value, and

SE_b = standard error of the rate or percent at the baseline.

This formula assumes that the group rates are independent. The comparison of the *Z* statistic with some Z-critical value determines the significance of the difference between the two rates. If $|Z| \geq 1.96$, the difference is significant at an alpha (α) level of 0.05. The difference between the most recent data value and the baseline is flagged (*) when it is statistically significant at the 0.05 level[4].

Census 2010, 2012 and 2013 Estimated Population by Age and Gender District of Columbia									
	2010 Census			2012 Estimates			2013 Estimates		
Age in Years	Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
	601,723	317,501	284,222	632,323	333,282	299,041	646,449	340,199	306,250
Under 5 years	32,613	16,080	16,533	38,876	19,133	19,743	40,967	20,073	20,894
5 to 9 years	26,147	12,949	13,198	28,725	14,255	14,470	29,876	14,734	15,142
Total 10-44 years	334,474	174,714	159,760	349,605	182,711	166,894	357,381	186,931	170,450
10 to 14 years	25,041	12,400	12,641	25,688	12,651	13,037	25,241	12,643	12,598
15 to 19 years	39,919	20,968	18,951	38,920	20,511	18,409	37,572	19,822	17,750
20 to 24 years	64,110	35,309	28,801	59,763	32,649	27,114	58,800	31,691	27,109
25 to 29 years	69,649	37,482	32,167	75,997	41,207	34,790	77,098	41,919	35,179
30 to 34 years	55,096	28,479	26,617	63,925	33,095	30,830	68,786	35,670	33,116
35 to 39 years	42,925	21,478	21,447	45,081	22,744	22,337	48,120	24,409	23,711
40 to 44 years	37,734	18,598	19,136	40,231	19,854	20,377	41,764	20,777	20,987
Total 15-44 years	309,433	162,314	147,119	323,917	170,060	153.857	332,140	174,288	157,852
45 to 49 years	38,539	19,005	19,534	38,178	18,841	19,337	37,946	18,797	19,149
50 to 54 years	37,164	19,050	18,114	37,512	18,971	18,541	38,253	19,148	19,105
55 to 59 years	34,274	18,280	15,994	35,944	19,096	16,848	36,539	19,329	17,210
60 to 64 years	29,703	16,305	13,398	31,594	17,430	14,164	32.065	17,453	14,612
65 to 69 years	21,488	11,883	9,605	23,369	12,973	10,396	24,149	13,490	10,659
70 to 74 years	15,481	8,810	6,671	16,329	9,206	7,123	16,867	9,577	7,290
75 to 79 years	11,820	7,038	4,782	11,907	7,149	4,758	11,978	7,115	4,863
80 to 84 years	9,705	6,189	3,516	9,281	5,857	3,424	9,233	5,796	3,437
85 and over	10,315	7,198	3,117	11,003	7,660	3,343	11,195	7,756	3,439

Source: U.S. Census Bureau, Census 2010, 2012 and 2013 Estimates

Appendix 1: Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for District of Columbia; April 1, 2000 to July 1, 2013

	1-Jul-13	1-Jul-12	1-Jul-11	Census 2010	1-Jul-09	1-Jul-08	1-Jul-07	1-Jul-06	1-Jul-05	1-Jul-04	1-Jul-03	1-Jul-02	1-Jul-01	1-Apr-00
BOTH SEXES	**646,449**	**633,427**	**619,624**	**601,723**	**599,657**	**591,833**	**587,868**	**585,419**	**582,049**	**579,521**	**577,371**	**579,112**	**577,678**	**571,723**
One race	627,846	615,199	601,793	584,407	582,400	582,198	578,648	576,464	573,355	571,107	569,256	571,214	570,012	564,322
White	248,676	243,667	238,357	231,471	230,676	237,092	230,825	224,995	219,449	213,890	209,195	207,336	204,207	196,966
Black	327,805	321,202	314,202	305,125	304,077	322,021	325,665	330,080	333,230	337,098	340,409	344,467	346,944	349,083
AIAN	2,234	2,189	2,141	2,079	2,072	2,367	2,287	2,234	2,196	2,131	2,094	2,092	2,032	1,975
Asian	22,621	22,165	21,682	21,056	20,984	20,120	19,313	18,608	17,954	17,471	17,079	16,849	16,390	15,869
NHPI	324	318	311	302	301	598	558	547	526	517	479	470	439	429
Two or more races ***Race alone or In combination***	**18,603**	**18,228**	**17,831**	**17,316**	**17,257**	**9,635**	**9,220**	**8,955**	**8,694**	**8,414**	**8,115**	**7,898**	**7,666**	**7,401**
White	261,760	256,488	250,898	243,650	242,813	243,839	237,238	231,168	225,398	219,620	214,667	212,607	209,283	201,806
Black	337,718	330,915	323,704	314,352	317,259	328,527	331,870	336,108	339,084	342,757	345,857	349,759	352,071	354,043
AIAN	7,006	6,865	6,715	6,521	6,299	5,834	5,669	5,601	5,536	5,439	5,359	5,352	5,280	5,209
Asian	28,853	28,272	27,656	26,857	26,765	23,308	22,351	21,544	20,785	20,185	19,666	19,348	18,773	18,139
NHPI	1,418	1,390	1,359	1,320	1,315	1,100	1,051	1,019	968	947	902	883	836	806
NOT HISPANIC	**587,631**	**575,793**	**563,246**	**546,974**	**545,096**	**540,709**	**538,304**	**536,311**	**532,994**	**530,870**	**529,430**	**531,830**	**530,741**	**526,486**
One race	574,040	562,477	550,220	534,324	532,489	532,290	530,266	528,481	525,385	523,508	522,314	524,915	524,072	520,077
White	225,033	220,500	215,695	209,464	208,745	196,049	191,465	186,005	180,196	174,614	170,036	168,662	166,186	160,822
Black	323,430	316,915	310,009	301,053	300,019	314,537	317,957	322,389	325,796	330,015	333,821	338,012	340,190	342,115
AIAN	1,420	1,392	1,361	1,322	1,317	1,592	1,555	1,515	1,477	1,428	1,399	1,408	1,356	1,330
Asian	22,365	21,915	21,437	20,818	20,747	19,699	18,904	18,198	17,558	17,096	16,724	16,503	16,031	15,509
NHPI	232	227	222	216	215	413	385	374	358	355	334	330	309	301
Two or more races ***Race alone or In combination***	**13,590**	**13,317**	**13,026**	**12,650**	**12,607**	**8,419**	**8,038**	**7,830**	**7,609**	**7,362**	**7,116**	**6,915**	**6,669**	**6,409**
White	238,118	233,321	228,237	221,643	220,882	201,710	196,824	191,171	185,169	179,393	174,602	173,048	170,357	164,771
Black	333,343	326,628	319,511	310,280	309,215	320,157	323,300	327,601	330,864	334,917	338,555	342,606	344,608	346,360
AIAN	6,192	6,068	5,935	5,764	5,744	4,673	4,569	4,523	4,467	4,397	4,330	4,340	4,274	4,236
Asian	28,598	28,022	27,411	26,619	26,528	22,706	21,764	20,967	20,233	19,657	19,175	18,860	18,271	17,634
NHPI	1,326	1,299	1,271	1,234	1,230	887	851	826	784	774	748	733	699	675
HISPANIC	**58,818**	**57,634**	**56,378**	**54,749**	**54,561**	**51,124**	**49,564**	**49,108**	**49,055**	**48,651**	**47,941**	**47,282**	**46,937**	**45,237**
One race	53,806	52,722	51,573	50,083	49,911	49,908	48,382	47,983	47,970	47,599	46,942	46,299	45,940	44,245
White	23,643	23,167	22,662	22,007	21,931	41,043	39,360	38,990	39,253	39,276	39,159	38,674	38,021	36,144
Black	4,375	4,287	4,193	4,072	4,058	7,484	7,708	7,691	7,434	7,083	6,588	6,455	6,754	6,968
AIAN	813	797	780	757	754	775	732	719	719	703	695	684	676	645
Asian	256	251	245	238	237	421	409	410	396	375	355	346	359	360
NHPI	92	91	89	86	86	185	173	173	168	162	145	140	130	128
Two or more races	**5,013**	**4,912**	**4,805**	**4,666**	**4,650**	**1,216**	**1182**	**1,125**	**1085**	**1,052**	**999**	**983**	**997**	**992**

Source: Population Division, U.S. Census Bureau (SC-EST2009-03-11& SC-EST2012-02-11). Release Date: May 14, 2009 and July, 2013