

# Assessing Reproductive Health Disparities in Milwaukee: Developing a Goal to Reduce Births for Young Teenagers by 2015

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## Background

Major disparities exist in pregnancy, birth, sexually transmitted diseases (STDs), and HIV rates in Milwaukee. In the State of Wisconsin, Milwaukee is ranked near the worst for overall health outcomes, including worst for teen birth rates and STD rates.[1] Teen pregnancy remains a major problem in Milwaukee even though the rates of pregnancy and births to teenagers have experienced significant declines since 1991.

## The study's primary objectives were to:

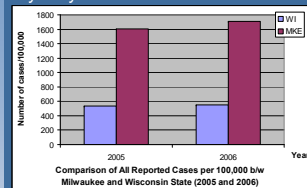
- 1) Summarize and assess racial and ethnic disparities in STDs, birth weight, infant mortality and reproductive health issues among teens;
- 2) Assess the birth rates for teenagers aged 15-17 years;
- 3) Develop a feasible goal for the year 2015 around reduction of births to teenagers ages 15-17 in the City of Milwaukee.

## Methods

- Data for STDs, birth weight and infant mortality were obtained from Wisconsin Interactive Statistics on Health (WISH).[2]
- Birth counts and birth rates for teenagers aged 15-17 and 18-19 years were obtained from WISH and the Milwaukee Health Department.
- Regression analysis (linear polynomial, nonlinear and logarithmic) were performed after birth rates for teenagers aged 15-17 years and 18-19 years were assessed for the period of 1971 through 2006, respectively.
- Data from the National Campaign to Reduce Teen and Unplanned Pregnancy were used to examine goals from other states.

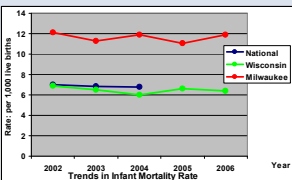
## Results

**STDs:** Milwaukee's reported STD cases are three times higher than those of Wisconsin and the U.S.; the number of reported STD cases are increasing yearly.



	U.S. (CDC)						WI (WISH)						MIKE (DHFS)					
	2004	2005	2006	2004	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006		
Chlamydia	316.5	332.5	347.8	355	368	363	1057	1066										
Gonorrhea	112.4	115.6	120.9	93	107	124	430	523										
Syphilis	4.7	5.1	5.7	2	2	3	7	9										
HSV (Herpes)				53	59	59	106	111										
All STDs				503	537	549	1602	1,712										

**Infant mortality:** The infant mortality rate in Milwaukee was double that of Wisconsin and the U.S. in 2006. The disparity ratio between African Americans and Whites in 2006 was 2.5 for all age groups. However it was 1.1 for teens aged 15-19.



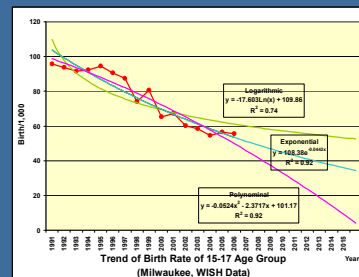
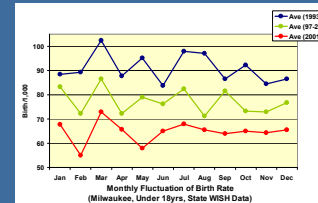
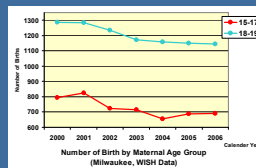
	Infant Mortality Rate (<365 days) per 1,000 Live Births (Milwaukee, WISH data)			
	African American	White	Disparity Ratio	
All Age (2004)	19.23	5.58	3.4	
All Age (2005)	14.81	8.29	1.8	
All Age (2006)	18.04	7.23	2.5	
Teens (2005-06)	16.08	14.89	1.1	

**Birth Weight:** Racial disparities in the incidence of very low birth weight (VLBW) improved by 30% in 2006 compared to 2005. However, 1 out of 30 African American mothers among all ages still had a VLBW baby in 2006.

	Maternal Age: 15-19 years			ALL Age
	African American	White	Disparity Rate	AA/W 2006
LBW	13.8	7.9	1.7	1.96
VLBW	3.6	2.2	1.6	2.06
Preterm	17.4	12.2	1.4	1.74

	Disparity Ratio*		African American		White	
	2005	2006	2005	2006	2005	2006
LBW	1.93	1.96	14.1	14.7 (4.3%)	7.3	7.5 (2.3%)
VLBW	2.92	2.06	3.8	3.3 (13.2%)	1.3	1.6 (23.1%)
Preterm	1.46	1.74	16.9	18.3 (8.3%)	11.6	10.5 (9.5%)

**Birth Rate:** Although the birth rate for teenagers aged 15-17 years has been decreasing from its peak at 95.8 per 1,000 females aged 15-17 years in 1991 to 55.4 in 2006, teen births remain a significant problem in Milwaukee. In data from 1971-2006, a peak in teen birth rates was observed in March. For all ages (including teens) peaks were in August and September, consistent with CDC findings. Regression analysis was performed for the time series analysis in an effort to forecast and set the goal for birth rates for young teenagers in 2015. By using different methodologies (Linear polynomial, nonlinear and logarithmic regression), three different predicted birth rates were calculated: 9.1, 35.9 and 53.2 births per 1,000 females.



## Conclusion

Our goal is to reduce teen births in the City of Milwaukee to 30 per 1,000 teenagers aged 15-17 years by 2015, which is a 46% reduction from the current rate of 55.4 births. This goal is based on national and state goals to reduce teen births and analysis of local data. While this goal is challenging, we feel it is achievable with evidence-based and data-informed programs, policies and efforts that are currently underway. Milwaukee has disparities in health outcomes by socioeconomic status.[3] As a next step for this study, we will analyze teen births by socioeconomic status including racial and ethnic differences.

## What do we want to know?

**Do disparities exist among SES levels in addition to racial disparities?**

➢ CUPH is preparing an Annual Health Report for Milwaukee including indicators by SES & race that will compare with Wisconsin's County Health Rankings.

**What causes the disparities in birth outcomes where should we focus our limited resources?**

➢ Perinatal Periods of Risk (PPOR) Analysis is important to assist in identifying focus areas for reducing IM rates in general but also reducing highest areas of disparity:

- o Maternal Health/Prematurity
- o Maternal Care
- o Newborn Care
- o Infant Health

## References

1. 2007 Wisconsin County Health Rankings Full Report University of Wisconsin Population Health Institute [http://www.pophealth.wisc.edu/wuphi/research/rankings\\_2007/full\\_report\\_2007.pdf](http://www.pophealth.wisc.edu/wuphi/research/rankings_2007/full_report_2007.pdf)
2. Wisconsin Interactive Statistics on Health Births Counts [http://dhs.wisconsin.gov/wish/main/wis\\_births/wis\\_births\\_home.htm](http://dhs.wisconsin.gov/wish/main/wis_births/wis_births_home.htm)
3. P.M. Vila, G.R. Swain, D.J. Baumgardner, et al. Health Disparities in Milwaukee by Socioeconomic Status. *Wisconsin Medical Journal* 106(7) 366-372. 2007. [http://www.wisconsinmedicalsociety.org/WMS/publications/wmj/issues/wmj\\_v106n7/106n7\\_vila\\_wms.pdf](http://www.wisconsinmedicalsociety.org/WMS/publications/wmj/issues/wmj_v106n7/106n7_vila_wms.pdf)

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