

Indicator:	Preconception HIV Testing (J1)
Domain:	Infections
Sub-domain:	HIV
Demographic group:	Women aged 18-44 having a live birth.
Data resource:	Pregnancy Risk Assessment Monitoring System (PRAMS). http://cdc.gov/prams/
Data availability:	Core item – available in all PRAMS states annually.
Numerator:	PRAMS respondents aged 18-44 years who reported that they had been tested for HIV within 1 year of the most recent pregnancy resulting in a live birth. This time frame includes less than 6 months and 6 months to 1 year.
Denominator:	Respondents aged 18-44 years who reported that they had been tested for HIV before the most recent pregnancy resulting in a live birth <u>and</u> stated that the testing occurred less than 6 months, 6 months to 1 year, or more than 1 year before the start of the pregnancy (excluding unknowns and refusals).
Measures of frequency:	Crude annual prevalence and 95% confidence interval, weighted using the PRAMS methodology (to compensate for unequal probabilities of selection, and adjust for non-response and telephone non-coverage).
Period of case definitions:	During the 12 months before the pregnancy resulting in the most recent live birth.
Significance:	Virtually all pediatric cases of acquired immunodeficiency syndrome (AIDS) result from perinatal HIV transmission. ¹ And, 40% of infants with AIDS are born to mothers who were unaware of their HIV status. ¹ While routine prenatal HIV testing provides an opportunity to diagnose HIV infection and initiate treatment that may prevent mother-to-child transmission, the Select Panel on Preconception Care workgroup emphasizes the importance of women knowing their HIV status prior to pregnancy. ² Preconception knowledge regarding HIV status allows women to reconsider becoming pregnant should they test positive. And, for those women who test positive and choose to pursue a pregnancy, there is an opportunity to inform them about the risks of vertical transmission to the infant and for the initiation of preconception

treatment to minimize the likelihood of vertical transmission. Studies reveal that the rate of perinatal HIV transmission is less than 2% with antiretroviral treatment compared with 25% to 30% without treatment.³⁻⁵

Limitations of indicator: The indicator relies on self-reports and was not verified by medical records. Concerns over stigmatization may have led some respondents to deny prior testing thus introducing social desirability bias. Furthermore, misclassification bias is possible since studies have found that some women assume that HIV testing is conducted routinely.⁶

Related Healthy People
2010 Objective(s):

13-7. Reduce new cases of perinatally acquired HIV infection.

References:

1. Revised guidelines for HIV counseling, testing, and referral and revised recommendations for HIV screening of pregnant women. MMWR Recomm Rep 2001; (RR-19):59-85.
2. Coonrod DV, Jack BW, Stubblefield PG, et al. The clinical content of preconception care: infectious diseases in preconception care. Am J Obstet Gynecol 2008; 199 (6 Suppl B): S296-309.
3. HIV/AIDS surveillance report, 2005. Vol. 17. Revised edition. Atlanta (GA): Centers for Disease Control and Prevention; 2007. Available from: <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/2005report/pdf/2005SurveillanceReport.pdf>.
4. Cooper ER, Charurat M, Mofenson L, Hanson IC, Pitt J, Diaz C, et al. [Combination antiretroviral strategies for the treatment of pregnant HIV-1-infected women and prevention of prenatal HIV-1 transmission.](#) J Acquir Immune Defic Syndr 2002; 29:484-94.
5. Connor EM, Sperling RS, Gelber R, Kiselev P, Scott G, O'Sullivan MJ, et al. [Reduction of maternal-infant transmission of human immunodeficiency virus type 1 with zidovudine treatment. Pediatric AIDS Clinical Trials Group Protocol 076 Study Group.](#) N Engl J Med 1994; 331:1173-80.
6. O'Campo P, de Boer M, Faden R, Kass N, Gielen A, Barbacci M. Confirmation of self-reported HIV testing among a cohort of pregnant women. J Clin Epidemiol 1997; 50:57-61.

Indicator:	Sexually Transmitted Infections (J2)
Domain:	Infections
Sub-domain:	Sexually Transmitted Infections
Demographic group:	Women aged 18-44 years.
Data resource:	National Sexually Transmitted Disease Database. http://www.cdc.gov/std/stats
Data availability:	Real-time active surveillance data are available in all states.
Numerators:	<p># of cases of chlamydia in the population of 18-44 year old women.</p> <p># of cases of gonorrhea in the population of 18-44 year old women</p> <p>.</p> <p># of cases of syphilis in the population of 18-44 year old women.</p>
Denominator:	# of 18-44 year old women in the population.
Measures of frequency:	Annual rate expressed as cases per 100,000 women.
Period of case definition:	Calendar year.
Significance:	<p>Although chlamydia and gonorrhea often go undiagnosed, they remain the first and second most commonly reported infectious diseases in the US, respectively.¹ Unrecognized or undiagnosed chlamydia and gonorrhea are associated with infertility and ectopic pregnancy. In recent years, syphilis cases in the U.S. have declined.¹ However, untreated and advanced syphilis can have serious adverse and debilitating effects on the neurologic, auditory, and visual systems, and congenital syphilis can have devastating pregnancy-related consequences such as spontaneous abortion, stillbirth, and premature birth, and cause impairments during fetal and infant development. Syphilis, like gonorrhea and other sexually transmitted infections (STIs), can also facilitate perinatal HIV transmission.²</p>
Limitations of indicator:	Data collection policies and resources for active surveillance of STI cases may differ by state. ³ Therefore, underreporting of some infections may occur.

Related Healthy People
2010 Objective(s):

25-1. Reduce the proportion of adolescents and young adults with Chlamydia trachomatis infections. Target: 3%. 25-2. Reduce gonorrhea. Target: 19 new cases per 100,000 population. 25-3. Eliminate sustained domestic transmission of primary and secondary syphilis. Target: 0.2 cases per 100,000.

References:

1. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2007. Atlanta, GA: U.S. Department of Health and Human Services; December 2008.
2. Centers for Disease Control and Prevention. [HIV prevention through early detection and treatment of other sexually transmitted diseases — United States recommendations of the Advisory Committee for HIV and STD Prevention](http://www.cdc.gov/mmwr/preview/mmwrhtml/00054174.htm). MMWR 1998; 47(RR-12):1-24. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/00054174.htm>
3. Gorwitz RJ, Webster LA, Nakashima AK, Greenspan JR. Sexually transmitted diseases. Reproductive health of women: from Data to Action -- CDC's public health surveillance for women, infants and children. Retrieved from: <http://www.cdc.gov/Reproductivehealth/ProductsPubs/DatatoAction/pdf/rhow2.pdf>

Indicator:	Influenza Vaccination (J3)
Domain:	Infections
Sub-domain:	Immunizations
Demographic group:	Women aged 18-44 years.
Data resource:	Behavioral Risk Factor Surveillance System (BRFSS). http://www.cdc.gov/BRFSS
Data availability:	Core item – available in all states annually.
Numerator:	Female respondents aged 18-44 years who reported receiving an influenza vaccination in the last 12 months (either a vaccine injected into their arm or a vaccine sprayed into their nose).
Denominator:	Female respondents aged 18-44 years who reported that they did or did not receive an influenza vaccination in the last 12 months (either a vaccine injected into their arm or a vaccine sprayed into their nose) (excluding unknowns and refusals).
Measures of frequency:	Crude annual prevalence and 95% confidence interval, weighted using the BRFSS methodology (to compensate for unequal probabilities of selection, and adjust for non-response and telephone non-coverage).
Period of case definition:	During the last 12 months.
Significance:	Influenza during pregnancy can increase the risk of maternal morbidity resulting in serious complications and hospitalizations, particularly among women in the second and third trimesters. ^{1, 2} And, women at any stage of pregnancy with certain chronic medical conditions, such as asthma, diabetes mellitus, and heart disease, are particularly vulnerable to influenza-related complications. ^{1, 3} Current recommendations include influenza vaccination for all pregnant women during influenza season, regardless of gestational age, for women who will be pregnant during influenza season, and for any woman with an increased risk for influenza-related complications. ^{4, 5}
Limitations of indicator:	Little research has been conducted to explore the reliability or validity of the BRFSS item assessing receipt of influenza vaccination. However, a few studies among the elderly suggest

that the validity of BRFSS data on receipt of influenza vaccination is high.⁶

Related Healthy People

2010 Objective(s):

14-29. Increase the proportion of adults who are vaccinated annually against influenza. Target: 60%.

References:

1. Centers for Disease Control and Prevention. Influenza Vaccination in Pregnancy: Practices Among Obstetrician-Gynecologists --- United States, 2003--04 Influenza Season. MMWR 2005; 54(41):1050-1052. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5441a4.htm>.
2. Neuzil KM, Reed GW, Mitchel EF, Simonsen L, Griffin MR. Impact of influenza on acute cardiopulmonary hospitalizations in pregnant women. Am J Epidemiol 1998; 148:1094-1102.
3. Centers for Disease Control and Prevention. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2003; 52(RR-8):7-10. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5208a1.htm>.
4. Smith NM, Bresee JS, Shay DK, Uyeki TM, Cox NJ, Strikas RA. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep 2006; 55:1-42.
5. Coonrod DV, Jack BW, Boggess KA, et al. The clinical content of preconception care: immunizations as part of preconception care. Am J Obstet Gynecol 2008; 199 (6 Suppl B): S290-295.
6. Nelson DE, Holtzman D, Bolen J, et al. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). Soc Prev Med 2001; 46 Suppl 1: S3-S42.