Yakima Health District BULLETIN

Volume 6, Issue 2 March 2007

Wound Botulism in Yakima County

Wound botulism was diagnosed in an injection drug user who was hospitalized in Yakima County during the last week of February. The patient presented with bulbar and generalized weakness that had progressed over the course of approximately one week. Botulism antitoxin was administered and the patient's condition slowly improved. Toxin assays of sera were negative, which is not uncommon in wound botulism cases. No ingestion of suspicious (e.g., home canned) food was reported, but the case did acknowledge use of black tar heroin. Black tar heroin is a crude product which can contain *Clostridium* spore laden adulterants, including soil and feces. Heating of the material for injection does not kill the spores, which are subsequently injected. Once injected into the skin, they can then germinate, produce toxin, and may occasionally cause clinically evident skin abscesses (however toxin production can occur without clinically evident skin infections). Data from multiple settings indicate that subcutaneous (skin "popping") and intramuscular injection are the modes of drug administration associated with risk of wound botulism.

An outbreak of four confirmed cases linked with a contaminated black tar heroin supply also occurred in Yakima County in August 2003 (see links below), and sporadic black tar associated cases have occurred since then. When prompt anti-toxin administration and appropriate supportive care is provided, most patients achieve full neurologic recovery. However, because of the high avidity with which the toxin binds to acetylcholine receptors on the neuromuscular junction, convalescence occurs slowly over the course of weeks to months.

It appears that there may be no additional cases linked with this one; still, YHD encourages providers to:

- Maintain a high index of suspicion for botulism in patients presenting with descending weakness and/or cranial nerve motor deficits (e.g., diplopia, facial musculature weakness, dysarthria, dysphagia, reduced gag reflex), especially among injection drug users.
- Request immediate neurologic and infectious disease specialty consultation when patients present with such a clinical picture.
- Report all suspect cases of botulism to the Health District immediately. The phone number for the Communicable Disease Nurse line is (509) 249-6541 during regular business hours (Monday through Friday). After hours call (509) 575-4040 and push #1 at the prompt.

http://www.cdc.gov/MMWR/preview/mmwrhtml/mm5237a3.htm

http://www.co.yakima.wa.us/health/documents/bulletin/bulletin2_5.pdf.

Acknowledgement: Neil Barg, MD, for reporting the case and contributing to this article.

Inside this issue:

Family Planning and Pregnancy Outcome Data

In 2005, 4170 children were born from 5031 pregnancies that occurred in Yakima County (Table 1). Although progress is being made for many indices of maternal-infant and reproductive health, the overall picture in Yakima County remains concerning, especially in comparison to statewide data. Pregnancy rates are approximately 25% higher than for Washington State as a whole and birth rates are 50% higher (Figure 1). Teen pregnancy rates in Yakima County exceed the statewide average by 80% and our teen birth rates are 120% higher (Figure 2). Seventeen percent of all births in Yakima County occur to women less than 20 years of age (statewide average: 11%). Low-birth weight (<2500g) is gradually increasing both locally and statewide, but is slightly higher in Yakima County (Figure 3). Infant mortality is variable and probably is not decreasing; it has exceeded statewide infant mortality for the majority of years in the past decade (Figure 4).

Prevailing cultural norms, religious beliefs, education of youth, socioeconomic status and access to reproductive health services probably all play a contributory role in these findings. Childbearing during the teen years is a known risk factor for pregnancy complications and LBW, [1-3] as well as a major risk factor for young women failing to complete their education, to have lower income, to be economically dependent, and to have subsequent unintended pregnancies.[4-7] Over 70-80% of teen mothers in Washington State have incomes <$1400 per month.[7] Independent of age, education remains a determinant of pregnancy outcomes and socioeconomic well-being. The prevalence of less-than-high-school-diploma education among Yakima County women giving birth in 2005 (45%) was 135% higher than the state average (19%--Figure 5). Not only do these findings imply limited options and increased risk for economic deprivation among young and/or uneducated mothers, but their children may also face a steeper path toward independence and freedom in their futures, as well.[1] Some social scientists criticize this perspective, arguing that early childbearing can be an adaptive behavior in socioeconomically disadvantaged populations;[8] however, an empiric quantification of those advantages, at least from the societal perspective, is lacking.

Survey and focus group research done by local and national investigators suggest that youth believe access to straightforward information about sexuality and better education and involvement of parents is an important component of teen pregnancy prevention.[9,10] However, parents acknowledge and children second that parent discomfort, embarrassment, and lack of information are often barriers to effective communication in this respect. In addition, family planning program and clinical staff in local reproductive health settings anecdotally report the following phenomena: (1) the existence of a high level of peer acceptance, if not admiration, for teen mothers; (2) families do play a strong role in teen women's decisions about pregnancy choices; and (3) once faced with teen or unintended pregnancy, women's choices do differ across cultural groups, with Caucasian women and US-born Latinas choosing termination more often than other Latinas. Taken together, this information suggests that peers and family influence teen choices, but mostly *after* the pregnancy has occurred. By providing youth, parents, and teachers with the knowledge and skills necessary to communicate effectively about sexuality and reproductive health, hopefully these very same peer and family influences can have a greater effect *before* young women face difficult choices. In addition, encouraging our youth to continue their education and ensuring access to clinical reproductive health services are key ingredients in reducing teen pregnancy and its consequences.

It is not the business of public health to dictate community norms with respect to reproductive choices. However, it is the business of public health to ensure that women have access to the information and clinical services needed to permit them to control the timing and number of their pregnancies. Thereby, these women and their families may be better able to promote their own physical, mental, and socioeconomic well-being, as well as that for their existing and future children. YHD is committed to supporting the community to further its progress in this arena. Key partners in this effort are Planned Parenthood of Central Washington, the Washington State Department of Health (Family Planning & Reproductive Health Office), and the Washington State Department of Social and Health Services . If you would like suggestions about what you or your agency can do to help, please contact one of the resources listed below or Jessica Johnson at the Yakima Health District, 509-249-6516.

Table 1. Pregnancy Outcome Data, Yakima County and Washington State, 2005

Area	Live Births		Abortions			Fetal Deaths		Total Pregnancies	
	No.	Rate[1]	No.	Rate[1]	Ratio[2]	No.	Rate[1]	No.	Rate[1]
Yakima	4,170	91.4	834	18.4	200	31	0.6	5031	110.3
Washington	82,625	63.1	24,162	18.5	292	519	0.7	107,306	82.0

[1](births or abortions) per 1,000 women 15-44 years of age [2]abortions per 1,000 live births

References

1. SmithBattle L, Leonard VW. Teen mothers and their teenaged children: the reciprocity of developmental trajectories. ANS Adv. Nurs. Sci. 2006;29:351-65.
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4. Health Services Policy Center, University of Washington. The State of Washington's Children, 2004-2005. http://www.hspc.org/publications/pdf/SWC_2004_2005_FINAL.pdf
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8. Geronimus AT. Damned if you do: culture, identity, privilege, and teenage childbearing in the United States. Soc. Sci. Med. 2003;57:881-93.

Figure 1A

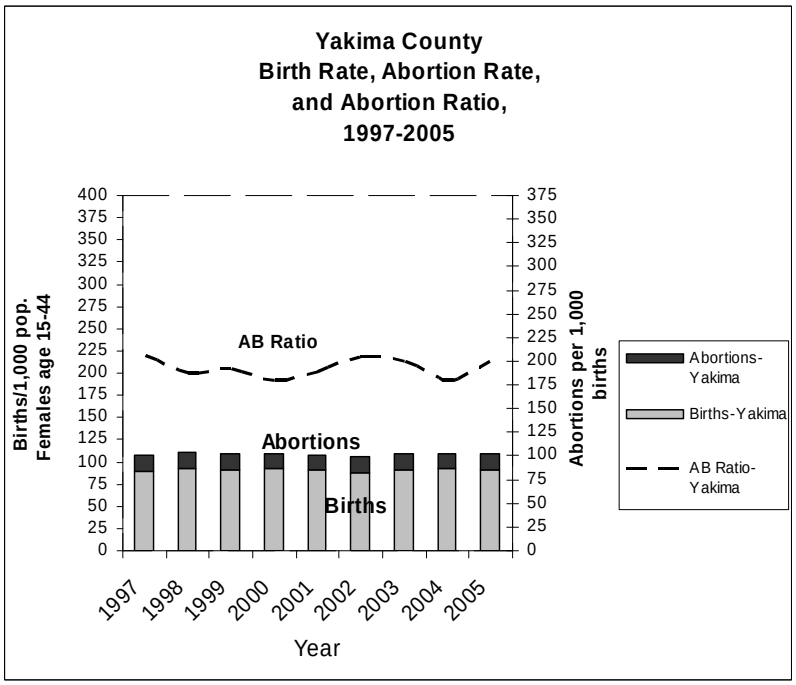


Figure 1B

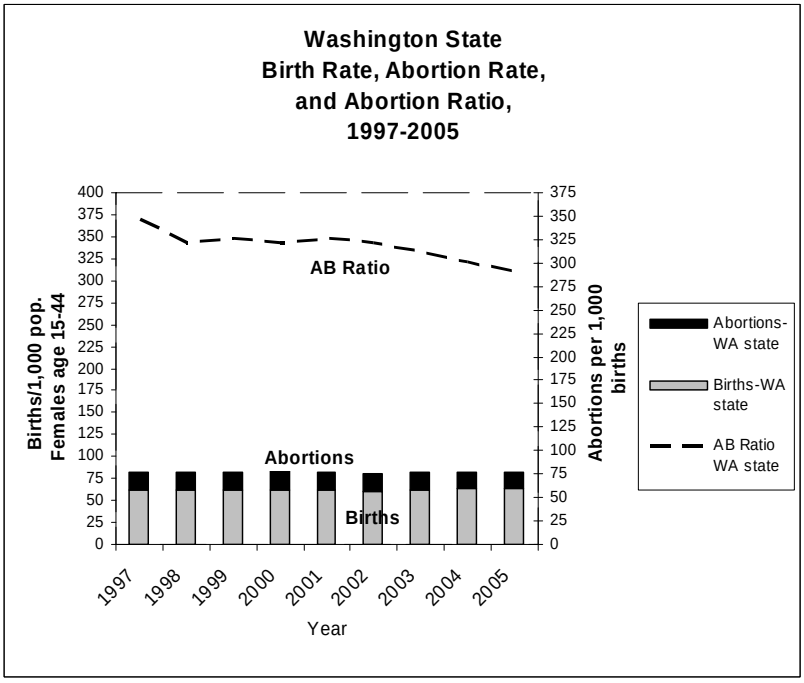


Figure 2

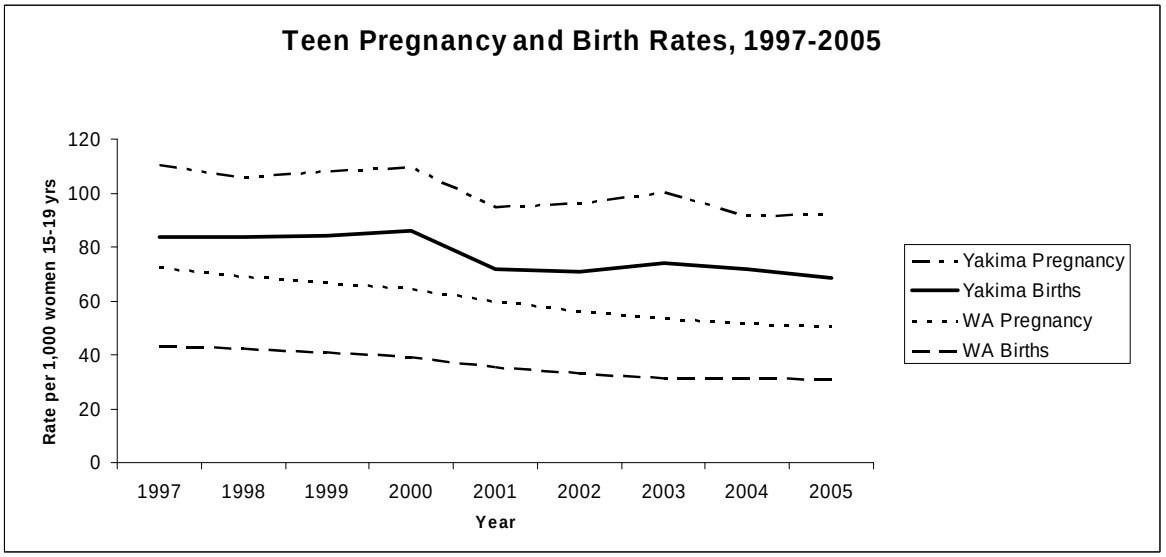


Figure 3

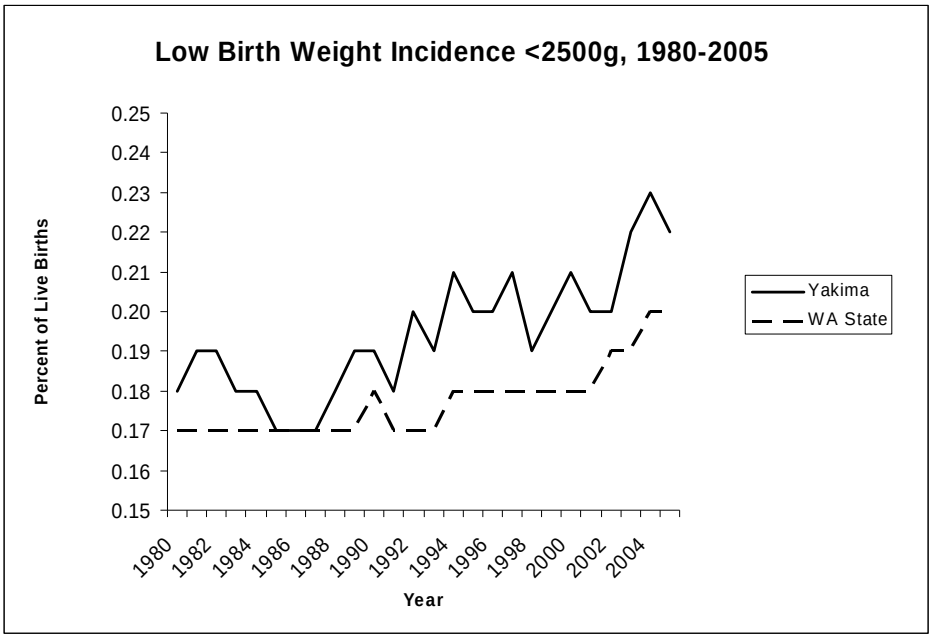


Figure 4

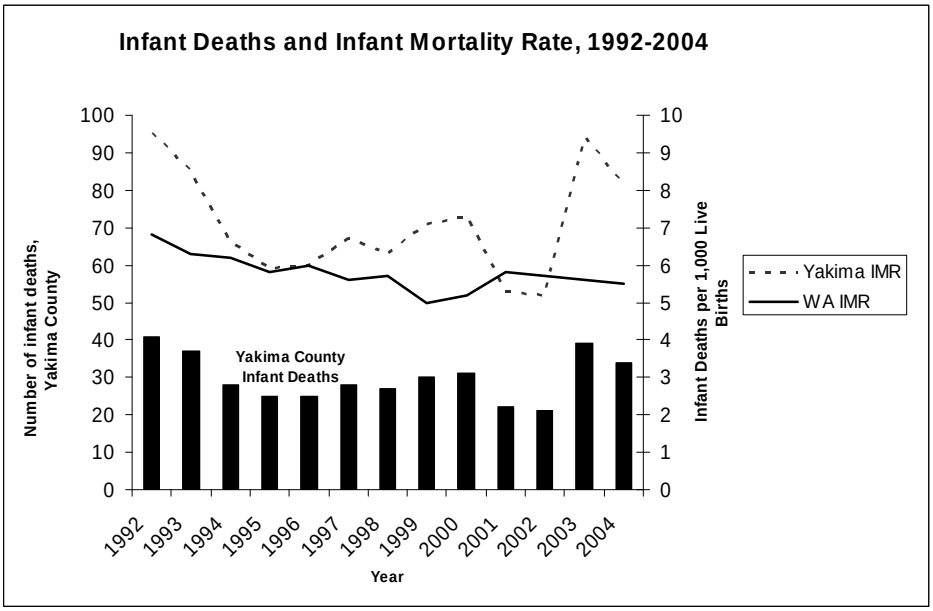
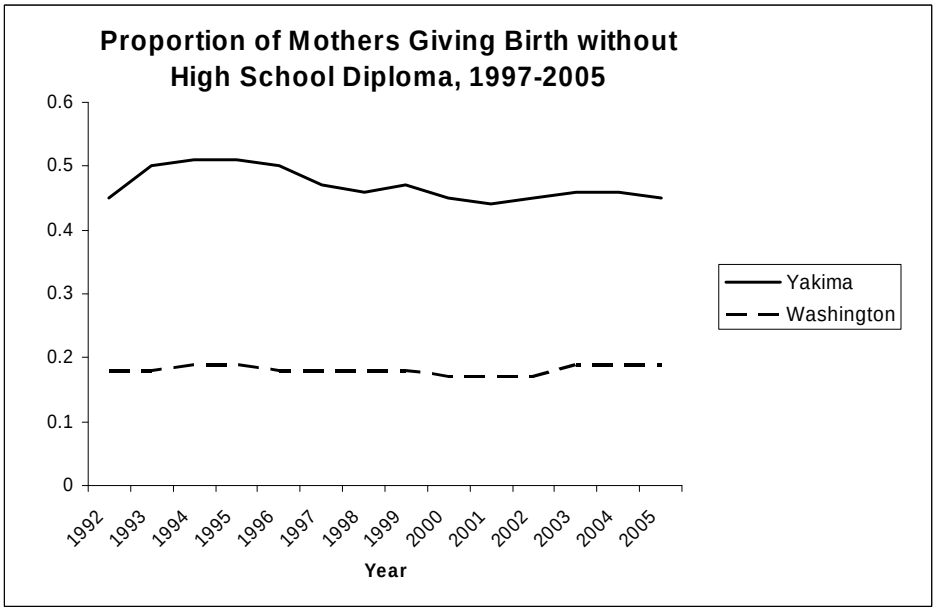


Figure 5



9. Central Washington University & Planned Parenthood. The Latina Project (unpublished report); 2003 *http://www.co.yakima.wa.us/health/documents/The_Latina_Project_Summary.pdf*
10. American Opinion on Teen Pregnancy and Related Issues 2003. National Campaign to Prevent Teen Pregnancy (http://www.teenpregnancy.org/works/pdf/American_Opinion.pdf).

Acknowledgements: Center for Health Statistics, Washington State DOH, for the data from which these analyses were extracted; Sara Cate, MD, and Anna Franks (Planned Parenthood of Central Washington) and Cynthia Harris (Washington State DOH Office of Family Planning and Reproductive Health) for their review of and comments on this article.

Resources

Planned Parenthood of Central Washington
State and federally subsidized services for family planning and reproductive health care. Health and sexuality education
Yakima (509) 248-3625
Sunnyside (509) 837-6979
Kennewick (888) 783-2859
http://www.plannedparenthood.org/centralwa/index.htm
Cedar River Clinic
(800) 573-4223
Office of Family Planning and Reproductive Health, Washington State Department of Health http://www.doh.wa.gov/cfh/FPRH/default.htm
Family Planning Program, Washington State Department of Social and Health Services; http://fortress.wa.gov/dshs/maa/familyplan/

American Lung Association's Master Home Environmentalist

American Lung Association of Washington's Master Home Environmentalist Program is designed to help people learn about health risks from pollutants found in their home. A trained Master Home Environmentalist provides free community outreach and education on issues related to: lead, dust, indoor air, hazardous chemicals, and moisture problems commonly found in the home. Home Environmental Assessment List (HEAL) is a tool utilized during the home assessment. This list enables an outreach worker to easily identify health hazards that can be reduced or eliminated, usually at low or no cost. Upon completion of the home visit, participants create an Action Plan, which provides recommendations to make their home safer. Also, a Do it Yourself version of the HEAL is available, for people who would like to answer the questions independently.

This program is currently available through August 1, 2007. Call Jenna Powers for an appointment or questions, at 248-4384 or email at jpowers@alaw.org.

WNV Vaccination Reminder for Equine Owners

Please remind your patients and clients that now is the time to vaccinate horses and other equine species against West Nile Virus (WNV). WNV is a very serious threat to horses and other equine species. About one-third of clinically ill equine animals will die of WNV illness. In 2006, five cases of WNV were detected in horses in Yakima County; two died. Three equine (not human) WNV vaccines are commercially available for administration through veterinarians, some of which can be given to foals as young as 2 months of age. If a horse has never been vaccinated, it will require two doses, 4-7 weeks apart. Note that immunity may not be achieved for up to 8 weeks after the administration of the second dose; therefore, spring time vaccination is critical to ensure protection during the peak period of risk in summer and autumn. Even if a horse has been vaccinated for WNV in the past, it should receive a booster dose every year in the spring.

A follow-up article on recognition, surveillance, and prevention of WNV will follow in the next edition of the bulletin. Previous articles on WNV can be found on YHD's website at:
http://www.co.yakima.wa.us/health/commhealth/vwnv.htm

WIC Highlights, 2006

Another program providing a valuable set of services to high-risk families is the Supplemental Food Program for Women, Infants and Children (WIC). Although it is primarily a public health program, it also has farm subsidy components that led to it being administered by the United States Department of Agriculture. USDA contracts with the Washington State Department of Health and its local subcontractors, who provide the direct client services. Eighty-percent of births in Yakima County in 2006 were eligible for WIC services. In 2006, WIC subcontractors in Yakima County provided nutritional assessments, counseling, and food vouchers to about 7,500 pregnant, breastfeeding, or post-partum women and 19,000 infants and children under 5 years of age. Counseling focuses on promoting breastfeeding, healthy diets, and referrals for early dental care and other preventive services. Supplements emphasize foods high in protein; vitamins A, C, and D; calcium; and iron (e.g., peanut butter, milk, cheese). The average client subsidy is $58 per month, bringing $10.4 million annually to local grocers and an additional $70,000 to farmers' market vendors. In addition, over 110,000 referrals for additional services were made by WIC counselors in 2006 (e.g., family planning, prenatal care, maternal support services, immunizations, dental care, smoking cessation). The Yakama Nation, Yakima Neighborhood Health Services, Yakima Valley Farmworkers Clinics, and Yakima Valley Memorial Hospital are all contracted WIC agencies. For more information on WIC services, visit the links below. To make a referral, please call 1-800-841-1410.

http://www.co.yakima.wa.us/health/documents/WICyakima06.pdf; http://www.doh.wa.gov/cfh/wic/reports/2006/annual_report06.pdf

Tuberculosis 101 Web-based Workshop

The Francis J. Curry National Tuberculosis Center in San Francisco is pleased to announce a new course: a "Tuberculosis 101" web-based workshop to be held on 4 consecutive Wednesdays in May (9,16,23,30) from 11a.m.-1p.m. These four 2-hour sessions will provide a brief introduction to the pathogenesis, epidemiology, and diagnosis of TB, management and care of TB disease, treatment of LTBI, contact investigations, interviewing, TST and infection control. This web-based workshop is intended for healthcare professionals who have limited experience or are new to working in TB control and prevention. We will be viewing this workshop at the Yakima Health District. If you are interested in attending, please call 509-249-6516. For a complete course description and information, please visit: http://www.nationaltbcenter.edu/training/training/webinar.cfm

For information about the TB program at YHD please contact Lela Hansen at 509-249-6532.

YAKIMA HEALTH DISTRICT

104 N 1st Street, Suite 204
Yakima, WA 98901

Reporting Line: (509) 249-6541
After hours Emergency: (509) 575-4040 #1
Toll Free: (800) 535-5016 x 541

Confidential Fax: (509) 249-6628

http://www.yakimapublichealth.org

	Cases			Total Cases by Year	
Condition *(includes confirmed and probable cases)*	**Jan-Feb**	**Jan-Feb**	**Jan-Feb**	**Total Cases by Year**	**Total Cases by Year**
	2007	**2006**	**2005**	**2006**	**2005**
Campylobacteriosis	11	22	11	205	113
Cryptosporidiosis	1	1	1	8	7
Enterohemorrhagic E. coli	0	0	0	5	3
Giardiasis	1	1	1	30	28
Salmonellosis	3	2	8	37	49
Shigellosis	1	10	5	36	25
Hepatitis A acute	0	0	0	1	3
Hepatitis B acute	0	1	0	4	1
Hepatitis B chronic	0	1	1	11	14
Hepatitis C acute	1	1	1	2	1
Hepatitis C chronic	14	19	14	176	214
Meningococcal	1	0	0	1	2
Pertussis	3	1	17	22	191
Tuberculosis	0	2	2	16	14
HIV New	2	0	2	3	14
HIV Deaths	1	0	1	0	2
HIV Cumulative Living	136	136	133	137	138
Chlamydia	198	166	156	1120	973
Genital Herpes—Initial	9	5	11	70	99
Gonorrhea	27	20	17	166	138
Primary and Secondary Syphilis	0	3	0	3	2

Notifiable Conditions Summary Jan– Feb, 2007