



Yakima Health District BULLETIN

Volume 9, Issue 6

December, 2010

What's Up with Those Billboards?

Inside this issue:

REVISED CDC
STD 2010
GUIDELINES -
UPDATED
TREATMENT OF
GONORRHEA

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If you have been out and about on Yakima County roads in the past six months, you probably have not missed the “What’s up your butt?” billboards. These curiously worded advertisements are part of a larger YHD campaign aimed at raising community awareness about colorectal cancer (CRC) screening. While the terminology employed is less refined than what many of us might choose to use with patients, it is indeed what emerged as victorious from pre-market testing as the best balance of attention-getting capacity, clarity, and acceptability among target audiences. The campaign came from the University of South Carolina’s Center for Colon Cancer Research who tested these materials among various groups and found the materials tested favorably among middle and lower income levels and among African American church groups.

CRC Epidemiology

The colon is the third leading site of involvement for cancer deaths, ranking behind lung and prostate in men and breast and lung in women (Table). Each year in Yakima County, approximately 95-100 CRCs are diagnosed and 30-35 deaths due to CRC occur. CRC incidence rates in Yakima County have declined by about 15% since 2000 (Figure 1). While the *number* of deaths has remained relatively stable over the past three decades, death *rates* have declined by 30-40% during this time as the population of the county has increased (Figure 2). Reasons for declining death rates probably include earlier detection and excision of pre-malignant and malignant lesions, and improved outcomes from medical and surgical management of malignant lesions. CRC screening is estimated to reduce incidence by 20% and cause-specific mortality by

33% (Centers for Disease Control and Prevention [CDC]). Reduced incidence due to changes in modifiable risk factors (see below) may also be playing an unspecified role.

Risk factors for CRC inferred from epidemiologic studies include male gender, tobacco smoking, obesity, diet low in fiber or high in animal products, high alcohol intake, inflammatory bowel disease,

and familial or hereditary conditions (e.g., familial adenomatous polyposis, hereditary non-polyposis CRC). In Washington State, Latinos appear to have lower CRC incidence, whereas Native Americans and African-Americans have higher rates, than non-Hispanic whites. Nationally, Native American incidence rates are lower than non-Hispanic Whites (Figure 3). National studies suggest that inter-group differences in CRC incidence and survival are driven only in part by surrogates for access to care (e.g., income, area of residence) and suggest that other factors (e.g., genetics, modifiable risk factors) may also be playing a role.

Rationale for CRC Screening

Central to CRC prevention is our understanding that the evolution of benign adenomatous lesions to malignant tumors occurs over the course of roughly ten years. This leaves a rather long window for diagnosing and managing pre-malignant and malignant lesions before they become

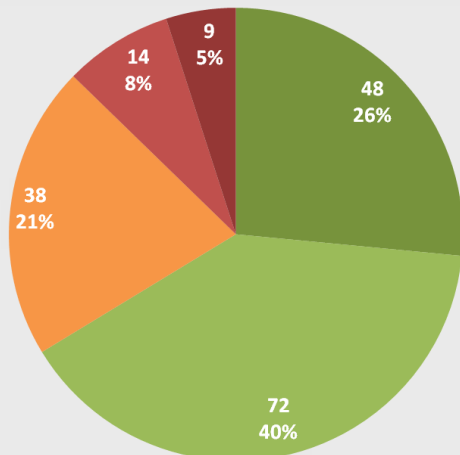


**What's up
your butt?**
Get tested for colon cancer
starting at age 50



Q: What is your Opinion of the Billboards?

Based on all respondents who answered yes to “Have you seen the Billboards?” (n=181)



■ Very Positive ■ Positive ■ Neither Positive or Negative ■ Negative ■ Very Negative

Yakima City Survey, 2010

regionally invasive or metastasize distantly. Five-year survival for *in-situ* or locally invasive lesions is approximately 90%, whereas it is only 10% for cases with regional spread or broader metastasis.

CRC Screening Methods

Methods for detecting pre-malignant and malignant lesions include the following: fecal occult blood testing (FOBT), flexible sigmoidoscopy, colonoscopy, CT colonography, and fecal DNA testing. FOBT uses guaiac-based chemistry to detect occult blood in fecal specimens, which are usually collected on three serial days and submitted for office-based testing. In recent years, enhancements in guaiac-based tests (e.g., Hemocult SENSE) and new immunoassays have greatly increased the sensitivity of FOBT. Flexible sigmoidoscopy and colonoscopy involve direct inspection of the colon via endoscope and permit immediate removal and histopathologic examination of suspicious lesions. CT colonography uses computerized tomography in combination with intestinal contrast media to identify lesions ("virtual colonoscopy"). Fecal DNA testing involves use of molecular technology to detect mutations associated with dysplastic or malignant lesions. This method is largely in its infancy and recommending bodies have not emphasized its adoption, but innovations in this field will continue to occur rapidly and it is likely to play a greater role in the years ahead.

Screening Risks

FOBT is relatively inexpensive and easy to perform. The main risks are related to low sensitivity of earlier generations of the testing and the cost and risks associated with endoscopy which is required for following up on positive tests. Endoscopy is more sensitive than FOBT, but it is also more expensive. In addition to greater cost, colonoscopy is associated with severe complications (e.g., death, perforation, hospitalization) in 25 of 10,000 procedures. Flexible sigmoidoscopy is associated with severe complications in approximately 3 of 10,000 procedures. Colonography also has higher costs than FOBT, but it does not require sedation. On the other hand, prerequisite bowel preparation creates a significant burden, the procedure still carries a small but variable risk of perforation (0-6/10,000) and it has relatively undefined radiation risks (maximum marginal increase in cancer risk from 10mSV dose of about 0.1%). Finally, colonography may generate need for further work-up of coincidental lesions that are found in approximately 15% of patients screened but which are of undetermined clinical significance.

Test Performance

The ordinal test performance of these screening modalities is roughly as follows:

Sensitivity: Hemocult II < fecal immunochemical tests ≤ Hemocult SENSE ≈ flexible sigmoidoscopy < colonoscopy ≈ colonography

Specificity: Hemocult SENSE < fecal immunochemical tests ≈ Hemocult II < flexible sigmoidoscopy = colonoscopy (colonography not graded due to uncertainty about significance of extra colonic findings)

CRC Screening Recommendations

Key bodies making recommendations for CRC screening modalities and frequency include the United States Preventive Services Task Force (USPSTF), the National Comprehensive Cancer Network (NCCN), the US Multi-Society Task Force on Colorectal Cancer, the American Cancer Society, the American College of Gastroenterology (ACG), and the American College of Radiology. While the specific recommendations between the groups vary, general consensus does exist that in practice the best method will be the one that is acceptable and affordable to the patient and that will, therefore, be followed. Overall, the following represents a summary consolidation of these

bodies' recommendations:

- Screening should begin at age 50 and continue until age 75 or until life expectancy is <10 years. CRC incidence is rather low below age 50 (only 10-20% of total cases), so systematic screening in lower age groups will lead to a majority of abnormal results being false positives and the costs and risks of further evaluations outweighing the benefits afforded to the small number of early cancers which are detected and cured. ACG recommends starting at age 45 in African Americans. Beyond age 75, or when life expectancy is <10 years, the benefits of detecting early cancers is outweighed by competing mortality, and CRC screening is not routinely recommended.
- Any of the following methods is considered an acceptable method of routine cancer screening. Regardless of your preferred method from the list below, individualizing the method chosen to the patient's preferences and resources will increase the probability that the patient actually follows through.
 - High sensitivity FOBT annually, or
 - Flexible sigmoidoscopy every 5 years +/- high sensitivity FOBT every 3 years, or
 - Colonoscopy every 10 years (preferred by ACG and NCCN), or
 - Colonography every 5 years (not recommended by USPSTF)

These recommendations do not apply to individuals who have familial conditions associated with colon malignancy or premalignant lesions or to patients with first-degree relatives who have had CRC. Such patients should be managed in accordance with prevailing guidelines and standards of practice specific to those settings. In general, though, screening for these higher risk groups should begin at age 40 (or ten years prior to first onset of the youngest case in the family); and methods of direct visualization (e.g., colonoscopy) are preferred over the indirect FOBT approach.

The most recent data available from CDC's Behavioral Risk Factor Surveillance System (BRFSS, 2006) showed that approximately two-thirds of Washingtonians over 50 years of age had undergone FOBT in the preceding year or lower endoscopy within the preceding 10 years. Lower age, lower education attainment, and lower income are associated with less participation in these screening activities statewide. Washington's 2004 BRFSS results revealed that 30% of unscreened patients who were eligible for CRC screening stated that their main reason for not having done so was that their health care provider had not mentioned it.

The Yakima Health District's CRC Screening Program is funded by the Centers for Disease Control and Prevention through the Washington State Department of Health for \$96,000 this year, of which \$50,000 is dedicated for clinical services to increase CRC cancer screening and to facilitate access to screening for low-income men and women ages 50-64 who are uninsured or underinsured. Staffing includes a Public Health Specialist at 0.3 FTE. For more information, please call 509-249-6519.

References & Resource Links

- * United States Preventive Services Task Force. Screening for Colorectal Cancer. <http://www.uspreventiveservicestaskforce.org/uspstf08/colocancer/colors.htm>.
- * Rex DK, et. al. American college of gastroenterology guidelines for colorectal cancer screening 2008. *Am J Gastroenterol.* 2009;104(3):739-50.
- * Ward E. Cancer Disparities by Race/Ethnicity and Socioeconomic Status. *CA Cancer J Clin* 2004;54:78-93. Available online at <http://CAonline.AmCancerSoc.org>.
- * Center for Health Statistics. Colorectal Cancer. Health of Washington State, 2007. <http://www.doh.wa.gov/Data/chronic.htm>.

Colon Cancer Tables / Figures

Table. Cancer Deaths and Rates by Site, Yakima County, 2009

Rank	Site	Deaths	Rate*
1	Lung	136	58.1
2-female	Breast	17	14.1
2-male	Prostate	24	23.3
3	Colon	32	12.5
Total	All	412	173.8
*adjusted to the age distribution of the 2000 US population			

Figure 1. Colorectal Cancer Incidence, Yakima County and Washington State, 2000-2006.

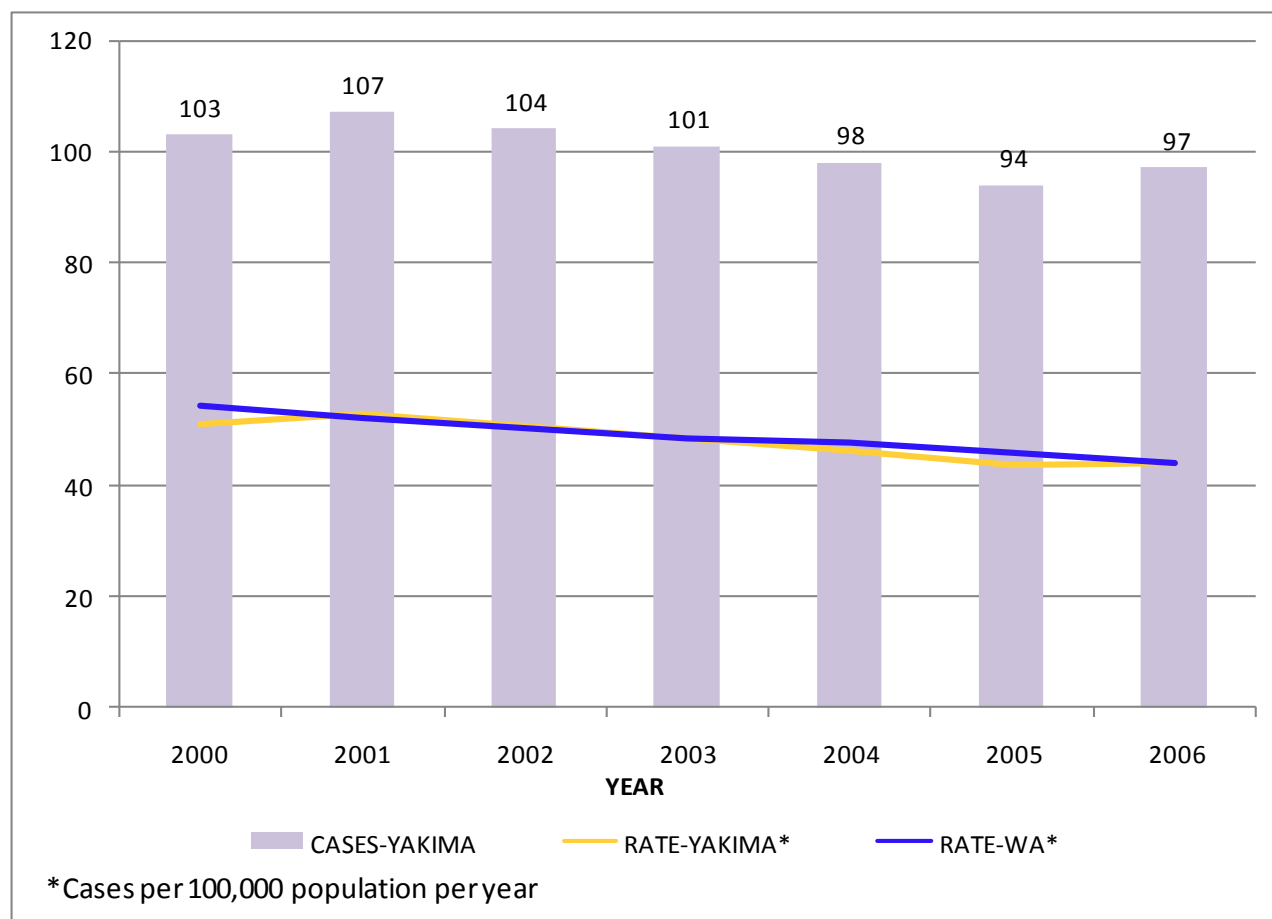


Figure 2. Colorectal Cancer Mortality, Yakima County and Washington State, 1980-2009.

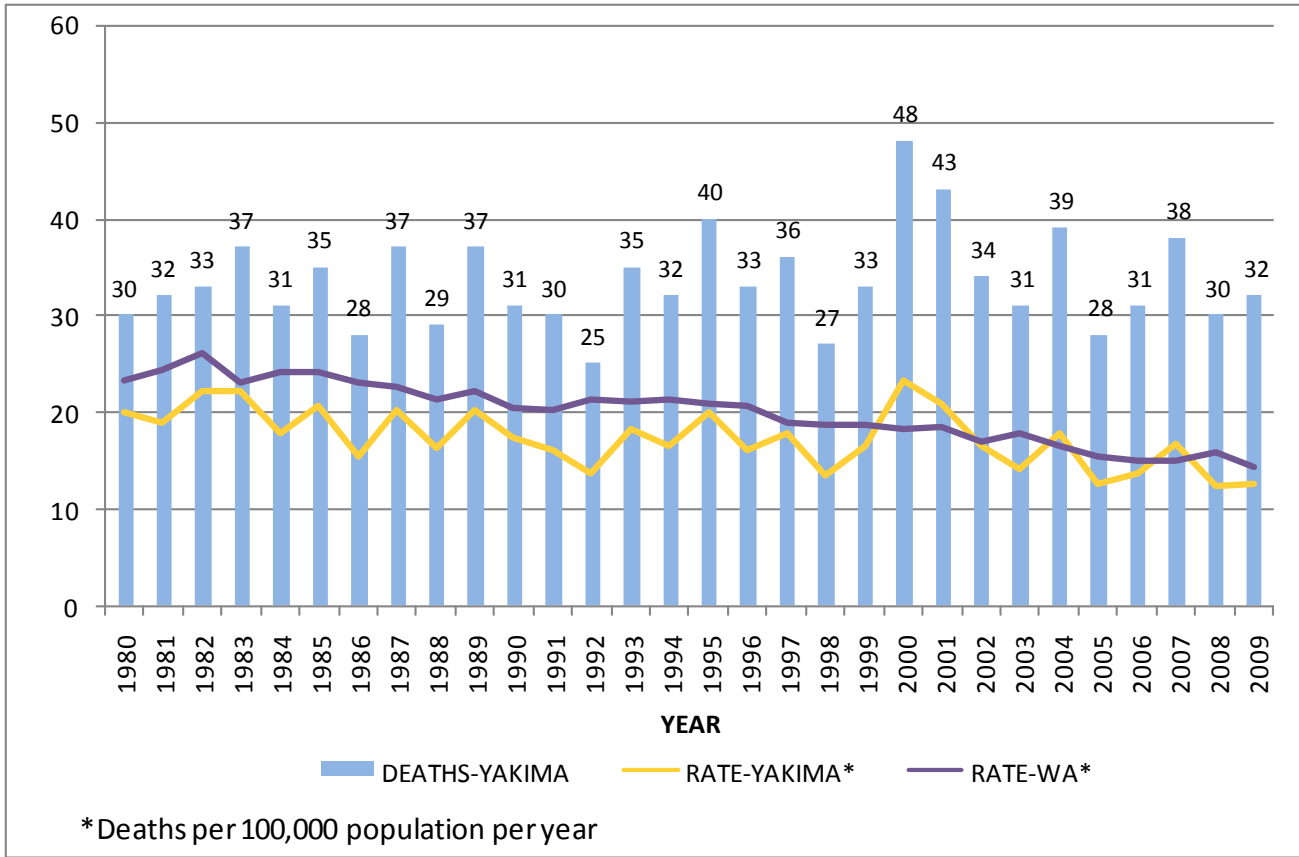
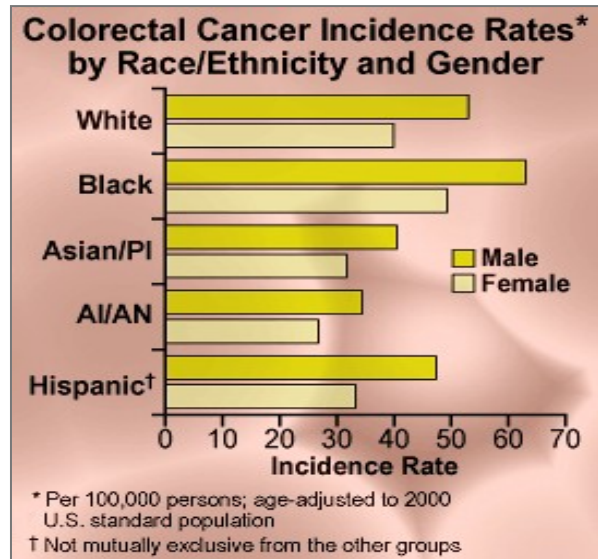
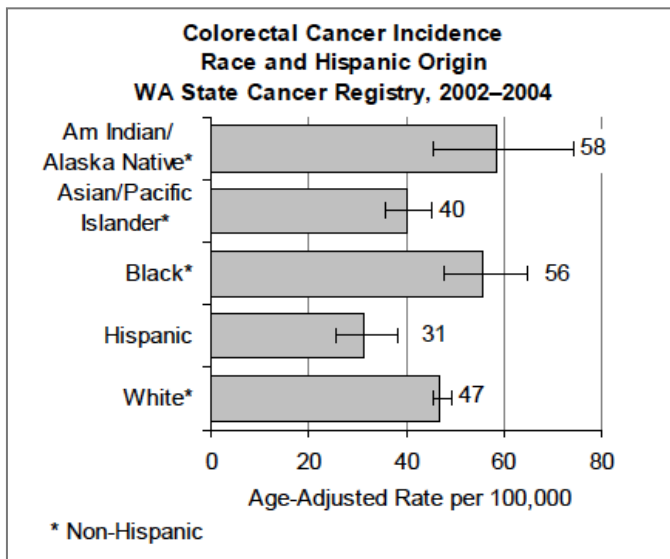


Figure 3. Colorectal Cancer Incidence by Race and Ethnicity, Washington State (2002-2004) and United States (2006)



Figures courtesy of Washington State Department of Health and Centers for Disease Control and Prevention, respectively.

- * Death Data. Center for Health Statistics, Washington State Department of Health. http://www.doh.wa.gov/ehsphi/chs/chs-data/death/dea_VD.htm.
- * Washington State Cancer Registry. <https://fortress.wa.gov/doh/wscr/WSCRreports.aspx>.
- * CDC Colorectal Cancer Control Program. <http://www.cdc.gov/cancer/crccp/about.htm>.

Update on Reduced Susceptibility of *Neisseria gonorrhoea* to Oral 3rd Generation Cephalosporins

Troublesome trends of rising antibiotic resistance to *Neisseria gonorrhoea* (gonorrhea) are notable in several parts of the United States as well as across Asia, Australia and Wales. A pathogen that once was exquisitely susceptible to a number of classes of antimicrobials, gonorrhea developed resistance serially to sulfonamides, penicillin and tetracyclines during the 1930s through 1980s, eliminating these agents as treatment options.¹ In 2007, trends of increasing fluoroquinolone resistance in Asia, Hawaii and California led the Centers for Disease Control and Prevention (CDC) to drop fluoroquinolones from the recommended list of therapies for gonorrhea.² Since then, only third generation cephalosporins have been the recommended first-line options for treatment of gonorrhea in Washington State. Emerging resistance toward this class of drugs, however, has also been demonstrated by CDC's Gonococcal Isolate Surveillance Project (GISP) over the past two decades.³

Furthermore, during the first three quarters of 2010, eight percent of Northwest regional gonococcal isolates tested through GISP show reduced susceptibility to oral third generation cephalosporins (i.e., cefixime and cefpodoxime).⁴ Although none of these reduced susceptibility isolates were obtained from Yakima County, it is clear that therapeutic options for effective treatment of gonococcal infections in the region continue to narrow. Accordingly, in the December 2010 release of its *STD Treatment Guidelines*, **CDC recommends the following multi-agent approach to chemotherapy for gonococcal infections:**

Cervix, urethra and rectum

RECOMMENDED:

- ceftriaxone 250 mg IM in a single dose

OR, IF NOT AN OPTION

- cefixime 400 mg orally in a single dose

OR,

- single-dose injectable cephalosporin regimens

PLUS either,

- azithromycin 1.0g orally (single dose) **OR**
- doxycycline 100 mg orally twice daily for 7 days.

Pharynx: ceftriaxone 250 mg intramuscularly in a single dose **PLUS** azithromycin 1.0g orally (single dose) **OR** doxycycline 100 mg twice daily for 7 days (note: oral cephalosporins do **NOT** reliably achieve adequate pharyngeal tissue penetrations).

Note: when well-documented severe penicillin allergy or other contraindications preclude treatment with a cephalosporin, consider treatment with single-dose azithromycin 2.0 g orally once, followed by a test-of-cure with culture- (not nucleic acid-) based testing in 10 days or consult with an infectious disease specialist.

Screening of Asymptomatic Patients Seeking Routine Care

Although other parts of Washington have seen increases in gonorrhea incidence in 2010, most remarkably among young men who have sex with men (MSM) in King County,⁴ Yakima County continues on a steady decline in reported cases since 2005 (see *YHD Bulletin*, June 2010). Annualized estimates of case reports reported to-

date yield an anticipated total of 28 cases for 2010, compared to 39 in 2009 and 85 in 2008. Despite this reassuring trend, vigilance remains warranted, particularly among high-risk populations. In addition to appropriately tailored diagnostic testing aimed at genital syndromes (e.g. urethritis, cervicitis, pelvic inflammatory disease), YHD also recommends targeted screening for gonorrhea and other STDs in the following fashion among asymptomatic patients presenting for routine or primary care:

- Sexually active MSM: test at least annually for *N. gonorrhoea* (test all sites exposed), *Chlamydia trachomatis*, and syphilis. If HIV-negative or –unknown, test for HIV at least annually.
- Women less than 25 years of age: test up-front for gonorrhea, annually for chlamydia, ensure they know their HIV status, and consider updating HIV status periodically depending on interval risk behaviors.

Asymptomatic patients with the following higher-risk characteristics during the preceding 12 months should be considered for gonococcal and other STD testing on a more frequent, opportunistic basis (e.g., up to quarterly) as they present for care:

- diagnosis of a bacterial sexually transmitted disease (STD), especially gonorrhea
- methamphetamine or popper use
- ten or more sex partners (oral or anal)
- unprotected anal sex with partners of unknown or different HIV status

Routine reporting of gonorrhea and chlamydia cases should be submitted via fax of completed case report forms to (509) 249-6628. Please remember to indicate the partner management plan in addition to the demographic and clinical information. To request case report forms or obtain consultation in diagnosis, treatment, or partner management of difficult cases, please contact YHD Lisa Baldoz at (509) 249-6531.

References:

¹Whittington WL, Knapp JS. Trends in resistance of *Neisseria gonorrhoeae* to antimicrobial agents in the United States. *Sex Transm Dis* 1988 Oct-Dec; 15 (4): 202-10.

²Centers for Disease Control and Prevention. Update to CDC's sexually transmitted diseases treatment guidelines, 2006: fluoroquinolones no longer recommended for treatment of gonococcal infections. *Morb Mortal Wkly Rep* 2007;56(14)332-6.

³Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2006 Supplement: Gonococcal Isolate Surveillance Project (GISP) Annual Report – 2006. Atlanta, GA: US Department of Health and Human Services; 2008.

⁴Mark Aubin, STD Program Manager, Washington State Department of Health (personal communication, November 2010).

Web Resources:

- *2010 STD Treatment Guidelines <http://www.cdc.gov/std/treatment/2010/>
- *Gonococcal Isolate Surveillance Project <http://www.cdc.gov/std/gisp/>
- *Washington State Department of Health STD Control Program <http://www.doh.wa.gov/cfh/std/>

REMINDER: Due to budget constraints, we will no longer be printing and mailing the YHD Bulletin as of the first of the year. Please fill out one form (included with this Bulletin) **OR** go to YHD's website www.yakimapublichealth.org/provideronly/bulletin_form for each person currently receiving or who wishes to receive the Bulletin. Thanks YHD Staff.

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**ATTENTION: THIS IS THE
LAST MAILED BULLETIN**

Condition (YHD includes confirmed <i>and</i> probable cases in totals)	Cases			Total Cases by Year	
	Jan- Nov	Jan- Nov	Jan- Nov	Total Cases by Year	Total Cases by Year
	2010	2009	2008	2009	2008
Campylobacteriosis	119	90	109	95	116
Cryptosporidiosis	4	2	6	3	7
Enterohemorrhagic E. coli	9	10	11	10	11
Giardiasis	21	28	27	30	28
Salmonellosis	50	37	42	39	49
Shigellosis	2	6	9	7	9
Hepatitis A acute	0	3	1	3	1
Hepatitis B acute	0	2	1	2	2
Hepatitis B chronic	4	8	8	9	9
Hepatitis C acute	1	1	0	1	0
Hepatitis C chronic	221	163	160	191	182
Meningococcal	2	2	1	2	1
Pertussis	9	39	24	40	25
Tuberculosis	8	4	10	7	10
HIV/AIDS New	11	17	17	18	17
HIV/AIDS Deaths	5	5	3	5	6
HIV/AIDS Cumulative Living	177	170	162	174	159
Chlamydia	1019	1080	1080	1180	1167
Genital Herpes—Initial	46	53	65	57	66
Gonorrhea	26	38	82	39	85
Primary and Secondary Syphilis	6	2	1	2	1

**Notifiable
Conditions
Summary
Jan - Nov,
2010**