



Yakima Health District BULLETIN

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Diabetes in Yakima County and RFP for Primary Prevention Initiative

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The Diabetes Prevention and Control Program of the Washington State Department of Health has released its *Diabetes Report 2007*. This report chronicles the prevalence of diabetes and its risk factors, as well as hospitalizations and deaths related to diabetes. Overall, the prevalence of diabetes in Yakima County (~7%) is roughly similar to that for the state; diabetes is the seventh leading cause of death. The prevalence of diabetes' chief risk factors (obesity--61% and physical inactivity--40%) also mirrors state-wide figures. Each year in Yakima County about 3500 diabetes-related hospitalizations and 220 diabetes-related deaths occur. Of these, diabetes itself is the proximate cause of about 300 of the hospitalizations and 75 of the deaths. Rates for diabetes related hospitalizations and deaths are about 20-25% higher than for the state. A copy of the statewide and county-specific diabetes reports can be downloaded at http://www.doh.wa.gov/cfh/diabetes/current_profile_data.htm.

Possibly the best long-term hope for diabetes control and prevention of its sequelae lies with promoting regular physical activity and good dietary habits, especially among children. The same could be said for prevention of other behavior-dependent chronic diseases. This is a formidable challenge given the number and strength of social and economic forces that seem to promote inactivity and obesity. These include increased reliance on vehicular transportation, limited physical education budgets for schools, limited leisure time, and the expanding entertainment, electronic game, beverage, and fast-food industries. Heredity and familial behavioral patterns certainly play a role as well. What can clinicians do to effect positive change in this environment?

Many organizations and federal agencies recommend that healthcare providers counsel individuals about diet and physical activity. For better or worse, these recommendations are based on the health benefits of good nutrition and physical activity rather than on the effectiveness of counseling by clinicians for promoting changes in diet and physical activity. Such organizations include the Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Education in Maternal and Child Health, American Academy of Family Physicians, American Academy of Pediatrics, American College of Obstetricians and Gynecologists, American Heart Association, and American Dietetic Association, among others.

The United States Preventive Services Task Force (USPSTF) is a group of content experts convened by the the Department of Health and Human Services to review existing data on preventable conditions and provide evidence-based recommendations for screening or intervention where appropriate. They are not the last word on such subjects nor does federal policy always follow their lead,. However the USPSTF does provide reviews and recommendations on a comprehensive set of conditions and interventions and it may be less subject to the pro-intervention bias which some advocacy groups or specialty organizations are susceptible. Here is what the USPSTF offers with respect to diet and activity counseling (last updated August 2002):

Routine Dietary Counseling

The USPSTF concludes that the evidence is insufficient to recommend for or against routine behavioral counseling to promote a healthy diet in unselected patients in primary care settings.

Targeted Dietary Counseling (August 2002)

The USPSTF recommends intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease. Intensive counseling can be delivered by primary care clinicians or by referral to other specialists, such as nutritionists or dietitians.

Physical Activity Counseling

The USPSTF concludes that the evidence is insufficient to recommend for or against behavioral counseling in primary care settings to promote physical activity.

The complete unedited text of the recommendations of the USPSTF can be directly viewed at

<http://www.ahrq.gov/clinic/uspstfix.htm>

Before being completely disheartened by these at-best equivocal findings and recommendations, please consider that the absence of evidence does not necessarily prove the absence of an effect. Measuring changes in behavior is difficult, especially when changes are relatively small and subject to multiple factors outside the intervention being evaluated. Maybe the most important implication of the relative neutrality of USPSTF's findings regarding diet and activity counseling are that (1) more research is needed to determine what does work and (2) a comprehensive approach which extends beyond the clinical setting probably is needed to reverse these trends in obesity and sedentary lifestyle. Such an approach could involve contributions from families, schools, parks and recreation, other public services, industry, advertisers, and others in the media.

The Washington State Department of Health is issuing a request for proposals to establish a contract for the Diabetes Primary Prevention Initiative. The goal is to discover non-traditional, but scientifically sound, methods and strategies for diabetes prevention and to develop an adaptive framework for the acceleration of adoption of best practices and new models and methods. The RFP and subsequent related documents are available for download at www.doh.wa.gov/bids.

Summary of Updated ACIP Recommendations on Varicella Vaccination

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5604a1.htm>

Routine Childhood Varicella Vaccination

- Routine childhood vaccination should be 2 doses.
 - *Preschool-aged children should receive the first dose of varicella vaccine at age 12--15 months.
 - *School-aged children should receive the second dose at age 4--6 years (may be administered earlier provided >3 months have elapsed after the first dose)

Persons aged >13 years

Persons aged >13 years should receive 2 doses of vaccine, (4--8 weeks apart). All adolescents and adults without evidence of immunity should be vaccinated. Because of their increased risk for transmission to persons at high risk for severe disease or their increased risk of exposure, vaccination is especially important for people without evidence of immunity in the following groups:

- People who have close contact with persons at high risk for serious complications (e.g., health-care personnel and household contacts of immuno-compromised patients);

- People who live or work in environments in which transmission of varicella zoster virus is likely (e.g., teachers, child-care workers, and residents and staff in institutional settings);
- People who live and work in environments in which transmission has been reported (e.g., college students, inmates and staff members of correctional institutions, military personnel);
- Non-pregnant women of childbearing age;
- Adolescents and adults living in households with children;
- International travelers.

Prenatal Assessment and Postpartum Vaccination

Prenatal assessment of women for evidence of varicella immunity is recommended. Upon completion or termination of pregnancy, women who do not have evidence of varicella immunity should be vaccinated.

Vaccination of HIV-Infected Persons

Vaccination should be considered for HIV-infected children with age-specific CD4+ T-lymphocyte percentage $\geq 15\%$ and may be considered for adolescents and adults with CD4+ T-lymphocyte count ≥ 200 cells/ μ L.

Evidence of Immunity to Varicella:

- Documentation of age-appropriate vaccination with a varicella vaccine
 - preschool-aged children (i.e., aged >12 months): 1 dose
 - school-aged children, adolescents, and adults: 2 doses
- Laboratory evidence of immunity or laboratory confirmation of disease
- Birth in the United States before 1980
- Diagnosis or verification of a history of varicella disease by a health-care provider
- Diagnosis or verification of a history of herpes zoster by a health-care provider

Providers who have questions about ordering or administering varicella vaccines may call YHD at 509-249-6514.

Advisory Regarding Use of Fluorquinolones for Treatment of CAP In Patients with TB Risk Factors

Consensus Guidelines on Management of Community Acquired Pneumonia were jointly published by the Infectious Diseases Society of America and the American Thoracic Society in March 2007. They can be downloaded at:

- <http://www.journals.uchicago.edu/CID/journal/issues/v44nS2/41620/41620.html>
- or
- <http://www.thoracic.org/sections/publications/statements/pages/mtpi/idsaats-cap.html>

The guidelines focus on the use of macrolides for outpatient treatment of CAP in otherwise healthy adults. Respiratory fluoroqui-

nolones (FQNs; e.g., moxifloxacin, gemifloxacin, and levofloxacin) are among the recommended agents for treatment of outpatients with significant co-morbidities, as well as for treatment of inpatients. As you are aware, FQNs now have become commonly used agents in the management of lower respiratory tract infections.

As you may also be aware, FQNs also have excellent activity against *M. tuberculosis* and are an integral part of tuberculosis (TB) treatment in the setting of first-line drug resistance or intolerance. In cases of CAP where *M. tuberculosis* is the causative agent, empiric use of FQNs can temporarily suppress TB. Anecdotal observation suggests that about 10-20% of pulmonary TB cases diagnosed in Washington State receive a FQN for empiric treatment of CAP during their initial presentation to a health care provider. One recent study has demonstrated considerable delays (e.g., 4-6 weeks) in diagnosis and initiation of effective therapy among TB patients who were initially treated for CAP with a FQN.¹ FQN resistance was observed in one case that had received a seven day course, and emergence of FQN resistance to TB is being documented throughout the globe. Even more important than legitimate concerns about emergence of FQN resistance, delayed diagnosis can be associated with worse prognosis requiring longer courses of curative therapy, and the delay also promotes ongoing transmission of TB in the community.

As a result, some TB experts recommend exercising caution in the use of FQNs for empiric treatment of CAP that is characterized by upper lung zone involvement, especially when risk factors for TB are present and an appropriate alternative agent can be used (e.g., macrolides, doxycycline, or a beta-lactam). The most common risk factors for inclusion in this cautionary approach would include birth in a middle or low income country, diabetes, HIV or other immunosuppression, history of latent tuberculosis (treated or not), or recent failed treatment for upper lung zone CAP. While the majority of coughing patients with these features do not have active tuberculosis, avoiding the use of FQNs in such settings seems prudent when an alternative agent can meet the needs of the situation. Subject to reasonable exceptions based on clinician judgment, YHD also recommends plain chest radiography and collection of sputum for AFB smear and culture (three consecutive early morning specimens) in patients with upper zone airspace opacities and TB risk factors, especially if a FQN will be used. YHD does not need to be notified of such patients unless sputum smears are positive or there are other reasons for strong suspicion of TB (e.g., productive cough > 3 weeks in duration, compatible radiographic findings, and background risk factors).

This also serves as an opportunity for YHD to encourage routine efforts by primary care providers to identify patients with TB risk factors and offer them testing and treatment for latent TB. This remains a key strategy in our efforts to control TB. A useful summary of the methods for doing so can be downloaded at <http://www.cdc.gov/tb/pubs/TBfactsheets.htm>. Further discussion of testing (<http://www.co.yakima.wa.us/health/documents/skintestresults.pdf>, <http://www.co.yakima.wa.us/health/documents/QFT.pdf>) and treatment (http://www.co.yakima.wa.us/health/documents/LTBIadherence_282_29.pdf) for LTBI will be covered in a future YHD Bulletin.

To report a suspected TB case, obtain consultation in evaluation of a suspected case, or get more information about targeted testing and treatment for latent TB, please contact Lela Hansen, RN, at (509) 249-6532.

¹Wang JY, et. al. Empirical treatment with a fluoroquinolone delays the treatment for tuberculosis and is associated with a poor prognosis in an endemic area. *Thorax* 2006;61(10):903-8

Shellfish-associated *Vibrio cholera*

On July 27, a 55 year-old male presented to a Yakima hospital emergency department with fever, abdominal pain, weakness, and what was later recognized as severe left thigh pain not relieved by opiate analgesics. Necrotizing fasciitis was suspected and confirmed at surgical debridement. His family reported that he had experienced episodes of vomiting throughout the week. *Vibrio cholera* was isolated from wound and blood cultures at the hospital laboratory and confirmed by both the Washington State Public Health Laboratory and the CDC. Serotype and toxin assays to determine whether this was a strain associated with epidemic cholera (O1, O139) were negative at the CDC. Approximately a week prior to the onset of illness, the man had eaten raw oysters harvested from coastal waters in the Pacific Northwest.

Vibriosis in the Northwest typically presents as an illness caused by *V. parahaemolyticus* which is characterized by abdominal cramps, diarrhea, nausea, vomiting and fever. The incubation period ranges from 12 hours to several days. Illness is usually self-limited over the course of two to three days, but it can progress to septicemia. The necrotizing fasciitis seen in this case was an extremely unusual presentation. Other causes of vibriosis not typically seen in the northwest include *V. vulnificus* and *cholera*. The main risk factor is ingestion of raw or undercooked shellfish. Reported cases vary from year to year in Washington State, averaging 20-30. In 2006, an all-time high of 82 cases were reported. To date in 2007 16 cases have been reported.

Vibrios are natural flora of the marine environment. They proliferate during warm summer months and are concentrated in shellfish. Prevention focuses on cooking shellfish to 145° F, which kills the bacteria. In addition, tracing shellfish causing human illness back to its source leads to product recalls and closure of affected beds, thereby preventing future cases. This is why prompt reporting of cases of culture confirmed vibriosis, as well as cases of clinically diagnosed diarrheal illness associated with ingestion of shellfish is so important. Several shellfish growing areas in Hood Canal have been closed recently due to an outbreak that affected six people in California. This gentleman's illness also was associated with shellfish harvested in the Pacific Northwest, but different from the Hood Canal growing areas.

To report a case of suspected or confirmed vibriosis or other notifiable enteric diseases (campylobacteriosis, salmonellosis, shigellosis, cryptosporidiosis, giardiasis, or suspected outbreaks of gastrointestinal illness), please call YHD at (509) 249-6541.

Thanks to Neil Barg, MD, for contributing the case report to this article.

YAKIMA HEALTH DISTRICT

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← **ATTENTION! NEW ADDRESS!**



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<http://www.yakimapublichealth.org>

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Notifiable Conditions Summary Jan– July, 2007

Condition (includes confirmed and probable cases)	Cases			Total Cases by Year	
	Jan- July	Jan- July	Jan- July	Total Cases by Year	Total Cases by Year
	2007	2006	2005	2006	2005
Campylobacteriosis	74	128	54	202	114
Cryptosporidiosis	7	2	3	7	7
Enterohemorrhagic E. coli	3	2	1	5	3
Giardiasis	14	13	12	31	28
Salmonellosis	15	14	38	34	52
Shigellosis	7	13	9	32	29
Hepatitis A acute	0	1	1	1	3
Hepatitis B acute	0	4	1	5	1
Hepatitis B chronic	na	na	na	11	14
Hepatitis C acute	1	1	2	1	2
Hepatitis C chronic	na	na	na	176	214
Meningococcal	1	1	0	1	2
Pertussis	8	18	94	21	188
Tuberculosis	9	6	11	16	14
HIV New	na	na	na	3	14
HIV Deaths	na	na	na	0	2
HIV Cumulative Living	na	na	na	137	138
Chlamydia	686	625	556	1120	973
Genital Herpes—Initial	27	47	54	70	99
Gonorrhea	74	102	81	166	138
Primary and Secondary Syphilis	0	3	0	3	2

*na=not available