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Public Health Strategic Health Care Group

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Veteran-Centered Public Health

As is the case with the high-quality medical care we deliver to our veteran patients, veterans must also be at the center of our efforts to improve population health. Like any client-centered service, our programs to improve veterans' health must not only rely on the most up-to-date science, but also reflect the needs, preferences, and special circumstances of the groups we are trying to reach and serve.

This issue of the newsletter contains articles on two very important populations of veterans with special health needs. The THRIVE program of the VA Palo Alto Health Care Systems provides innovative, comprehensive care to vulnerable and underserved veterans—including men and women who are homeless. Using a “stand down” model, basic health and hygiene services and supplies are provided along with medical, mental health, and substance abuse services. The program's success results from an active collaboration of many committed partners.

Another unique population of veterans whose health care requires a multidisciplinary approach are those living with chronic hepatitis and end stage liver disease. Trends in diagnoses of cirrhosis and hepatocellular carcinoma over the past several years show that more and more veterans are developing these long-term complications of chronic hepatitis. Because behavioral factors like alcohol and drug use can contribute to liver disease progression, it is imperative that we develop models of prevention and care that address the variety of medical, social, and psychological issues that can have an impact on “liver health.”

Taken together, these two articles remind us of the importance of meeting veterans where they are, and of making sure that we continue to promote veteran-centered public health programs.

Wishing you Good Health,

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Chief Consultant, Public Health SHG



Mission:

The Public Health Strategic Health Care Group (PHSHG) is a key organizational component of the Office of Public Health and Environmental Hazards, U.S. Department of Veterans Affairs (VA). PHSHG's mission is to improve the health of veterans through the development of sound policies and programs related to several major public health concerns, including: HIV infection, HCV infection, seasonal influenza, smoking and tobacco use cessation, and emerging infections of public health significance — including health care-associated infections.



PHSHG Public Health Strategic Health Care Group

Addressing Behavioral Factors to Improve Liver Health

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Recent reports from the hepatitis C virus Clinical Case Registry (CCR) indicate increasing rates of cirrhosis and hepatocellular carcinoma (HCC) in our veteran population with chronic hepatitis C virus (HCV) infection. Similar to their non-veteran peers, the largest cohort of veterans with HCV likely contracted infection 30 or more years ago. While the prevalence of HCV infection in the general US population peaked in the mid-1990s, the medical care needs of the bolus of individuals who have been chronically infected for 20 years or more will continue to grow over the coming years¹. The complications of chronic liver disease for this large group of aging HCV+ veterans are often compounded by behavioral factors such as mental health and substance use disorders. These co-occurring conditions impact liver health and effective treatment engagement and require an effective, population-based, public health response to mitigate their impact.

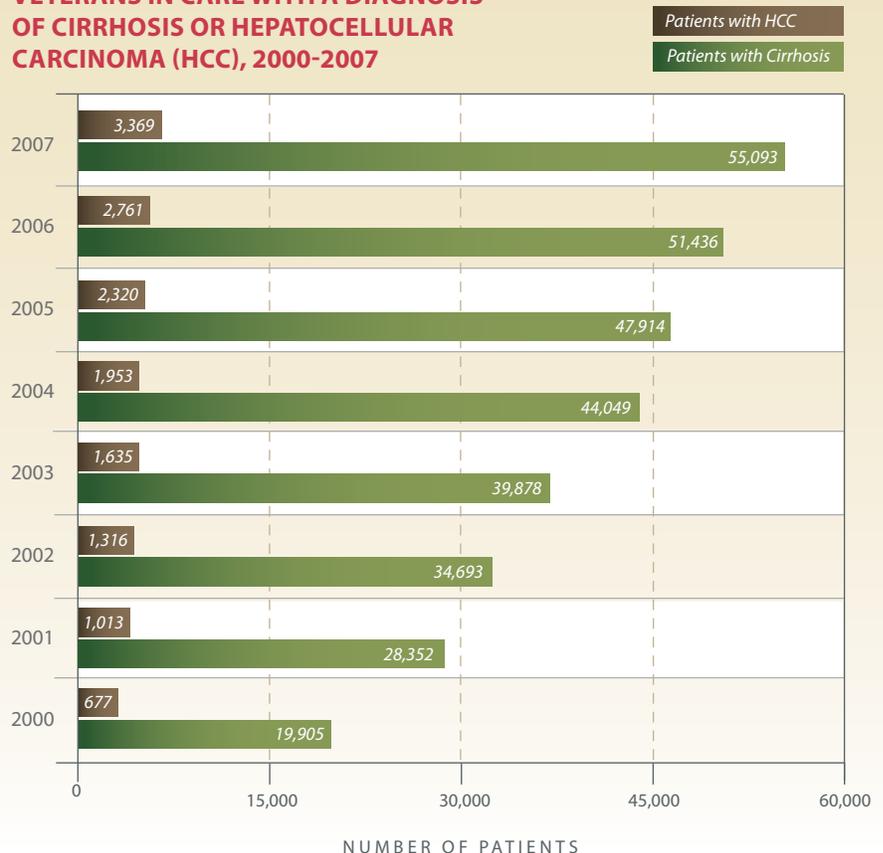
Increasing Rates of Cirrhosis and Liver Cancer

Figure 1 illustrates the steadily rising prevalence of cirrhosis and liver cancer in the veteran population based on data from the VA Liver Disease Database recently developed by the VA National Hepatitis C Resource Center Program (HCRC; www.hepatitis.va.gov/vahep?page=prin-con-hcrc-01). Cases from the enrolled veteran population were selected for inclusion in the Liver Disease Database based on

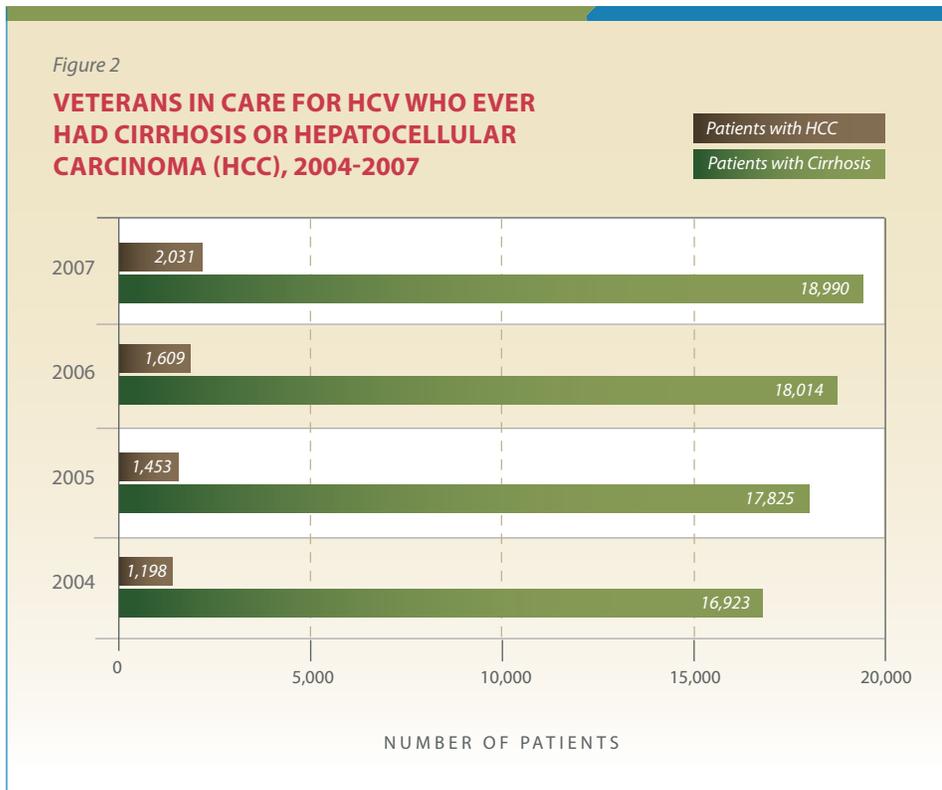
select ICD-9 diagnoses used to indicate the presence of cirrhosis (due to any cause) or HCC. These data show that the number of veterans with a diagnosis of cirrhosis has almost tripled since the start of the decade, and that cases of HCC have increased five-fold. Data from the VA's Hepatitis C Clinical Case Registry (HCV CCR), which includes only veterans with a positive HCV antibody test or diagnosis of HCV, provides rates of cirrhosis and HCC among VHA's approximately 208,000 veterans with HCV.

Figure 1

VETERANS IN CARE WITH A DIAGNOSIS OF CIRRHOSIS OR HEPATOCELLULAR CARCINOMA (HCC), 2000-2007



*Dr. Davison developed this article in his capacity as Associate Director for Behavioral Public Health, while employed by the Public Health Strategic Health Care Group.



Within this population, cases of cirrhosis have increased 12 percent from 2004 to 2007, but cases of HCC have increased 70 percent over the same time period (Figure 2). In the United States, the leading causes of cirrhosis of the liver are excessive alcohol consumption, chronic hepatitis C infection, and the combination of both these risk factors.² However, cirrhosis can be caused by several other conditions, including hepatitis B, non-alcoholic steatohepatitis (NASH), as well as genetically-inherited diseases, such as cystic fibrosis, hemochromatosis, and Wilson’s Disease.

Behavioral factors contribute to exacerbation of liver disease progression, and co-morbid mental health and substance use disorders are often barriers to receipt of appropriate care for HCV. In a recent review of barriers to antiviral treatment for HCV, Dr. Sam Ho and his colleagues found that psychiatric diagnoses and alcohol and substance use disorders were major exclusion criteria for VA and non-VA patients with HCV, often at rates exceeding medical contraindications.³ Even when they do not directly impede care, mental health and substance use problems make provision of care more complicated and may contribute to homelessness, poor self-care, and a lack of stable social support.

Behavioral Factors Affecting Eligibility for Liver Transplant

For many veterans, their liver disease has progressed to the point where liver transplant is the only intervention available. Behavioral issues have a significant impact on successful self-care, adjustment to life post-transplant, and the liver transplant listing and referral process, which is long and complicated, involving extensive lab work and multiple specialist evaluations. While a patient sent for evaluation to one of the five VA liver transplant centers may be an acceptable candidate from a medical perspective, psychosocial issues often raise concerns about the individual’s overall viability as a transplant candidate. Mental health professionals involved in the liver transplant work-up process may be able to improve outcomes for transplant candidates by addressing psychosocial factors earlier in the referral process.

The sidebar outlines some of the major psychosocial elements of a liver transplant evaluation. In addition to a good history of health care engagement and adequate social support, a patient’s psychiatric history, personality profile, and cognitive ability are indicative of how good a “custodian” of a donated liver that patient may be.

A prior history of alcohol or substance use requires particular scrutiny, and VHA transplant teams want to know in what kind of treatment the patient has engaged to address his/her substance use disorder. Also, besides the immediate need to obtain a life-saving transplant, what personal reasons or motivations does the patient have for becoming and remaining abstinent from drugs and alcohol? The candidate’s designated support person is another major focus of the liver transplant team, as the patient will be almost completely dependent on his/her caregiver for many weeks following transplant surgery. Caregivers need support and education about the liver transplant and rehabilitation process to the same extent that patients do.

PSYCHOSOCIAL ELEMENTS OF LIVER TRANSPLANT EVALUATION

HISTORY OF ADHERENCE

- Following medication/treatment plan
- Keeping appointments
- Minimal anger/impulsivity regarding care
- Successful management of other chronic conditions

HISTORY OF SUBSTANCE USE AND RISK OF RELAPSE

- Reason for use
- Pattern of use
- Reason to quit
- Reason to stay sober
- Consequences of use
- Awareness of triggers

ASSESSMENT OF COGNITIVE CAPACITY

- Neuropsychological measurement
- Clinical interview

ASSESSMENT OF PSYCHOLOGICAL FUNCTIONING

- Personality assessment – coping skills and resilience
- Co-morbid psychiatric disorders: Depression, Bipolar Disorder, PTSD, etc.

EVALUATION OF AVAILABLE SOCIAL SUPPORT

- Caregiver’s role and relationship to the patient
- Other sources of social support (church, extended family, etc.)



Behavioral Public Health Interventions to Improve Liver Disease Management

The VHA system will be challenged in meeting the needs of an increasing number of veterans with advanced liver disease, and addressing behavioral health factors related to chronic liver disease is essential for successful patient care management. Many VA medical facilities have organized multidisciplinary teams in gastroenterology and specialized liver clinics, including psychologists, psychiatric clinical nurse specialists, and social workers. The sidebar lists just several of the many roles that behavioral health consultants undertake to facilitate care for liver disease patients, from mental health screening of newly identified HCV patients to palliative care for those with end-stage liver disease. Although there is great variability in the way in which care teams and provider roles are structured across facilities, the focus they all share is to provide individualized, comprehensive care to the veteran.

One behavioral health approach with a potentially high impact among HCV-infected veterans is brief intervention for alcohol abuse. The Public Health Strategic Health Care Group, part of the Office of Public Health and Environmental Hazards, working through the HCRC Program and in

partnership with the VA Puget Sound Center of Excellence in Substance Abuse Treatment and Education (CESATE), has actively promoted brief intervention for heavy drinking in patients with hepatitis C as a means to minimize liver damage for veterans with chronic liver disease. The primary activity in this program has been a series of two-day workshops to instruct providers how to conduct a brief intervention using a Motivational Interviewing clinical style. This non-directive, patient-centered approach has been shown to facilitate meaningful discussions with patients about their alcohol use when a more directive or prescriptive message often is more likely to be discounted or disregarded by patients. An exciting feature about these workshops has been the use of standardized patient actors who portray heavy-drinking veterans with hepatitis C and give participants the opportunity to practice the brief intervention skills they have learned in the course.

VA leadership approved a new initiative in fiscal year 2009 to expand efforts to address the behavioral and demographic factors that impact HCV and HIV care for veterans. Among other activities, the new Behavioral Public Health Program will apply epidemiological techniques to identify those patients with HIV and/or HCV who are most at risk for complications and mortality from advanced liver disease, and pilot and disseminate approaches to improve

health care engagement and outcomes for this population. For example, peer groups providing support and education could be formed based on clinical diagnoses (e.g., substance use disorder, depression, psychosis, etc.), clinic location (e.g., substance abuse, mental health, day treatment, etc.), or patient demographic characteristics. Other candidate interventions include patient outreach and the development of telemedicine protocols to assist more challenging patients on antiviral treatment, manage symptoms of depression, and assist with alcohol relapse prevention. The increasing number of cases of cirrhosis and HCC in VHA require a concerted, multidisciplinary public health approach, and our veterans with HCV and liver disease deserve nothing less.

BEHAVIORAL HEALTH PROVIDER ROLES IN LIVER DISEASE SPECIALTY CARE

- Conducting in-depth psychological evaluations to determine mental health and suitability for HCV antiviral treatment or liver transplant.
- Providing time-limited psychological interventions to help patients manage psychiatric side-effects of antiviral treatment
- Leading hepatitis C support groups and liver transplant support groups
- Participating in hepatitis C patient education
- Assessing alcohol use and providing brief interventions for hazardous drinking in patients with hepatitis C
- Providing psychosocial support to patients with end stage liver disease

REFERENCES

1. Armstrong GL. The past incidence of hepatitis C virus infection: Implications for the future burden of chronic liver disease in the United States. *Hepatology* 2000;31(3):777-82. 2. Wolf DC. Cirrhosis. eMedicine from WebMD Web site. 2008. Available at: <http://emedicine.medscape.com/article/185856-overview>. Accessed January 26, 2009. 3. Ho S, Groessl E, Dollarhide A, et al. Management of Chronic Hepatitis C in Veterans: the potential of integrated care models. *Am J Gastroenterol* 2008;103:1810-1823.

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THRIVE: A HOSPITAL OUTREACH TEAM

Improving public health, one veteran at a time

The Health and Resource Initiative for Veterans Everywhere (THRIVE) of the VA Palo Alto Health Care System (VAPAHCS) is an innovative, comprehensive, and state-of-the-art program designed to provide outreach and services to our most vulnerable and underserved veterans. Many of these veterans are chronically homeless as a result of substance abuse, mental illness, medical illness, and other socioeconomic circumstances. Overall, an estimated one-fourth of all U.S. homeless have served in the armed forces.



In recent years, THRIVE has also expanded its scope to include outreach and services to OEF/OIF (Operation Enduring Freedom/Operation Iraqi Freedom) veterans, many of whom upon their return, are struggling with medical and mental health issues. The goals of this program are to increase access to health care, establish continuity of care, and return thriving veterans to optimal independent living.

Collaboration

THRIVE is a remarkable partnership amongst multiple VA services, as well as community agencies. (See Figure 1) Within VA, members from mobile medical, homeless outreach, OEF/OIF, women's outreach, and incarcerated veterans re-entry teams meet regularly for strategic

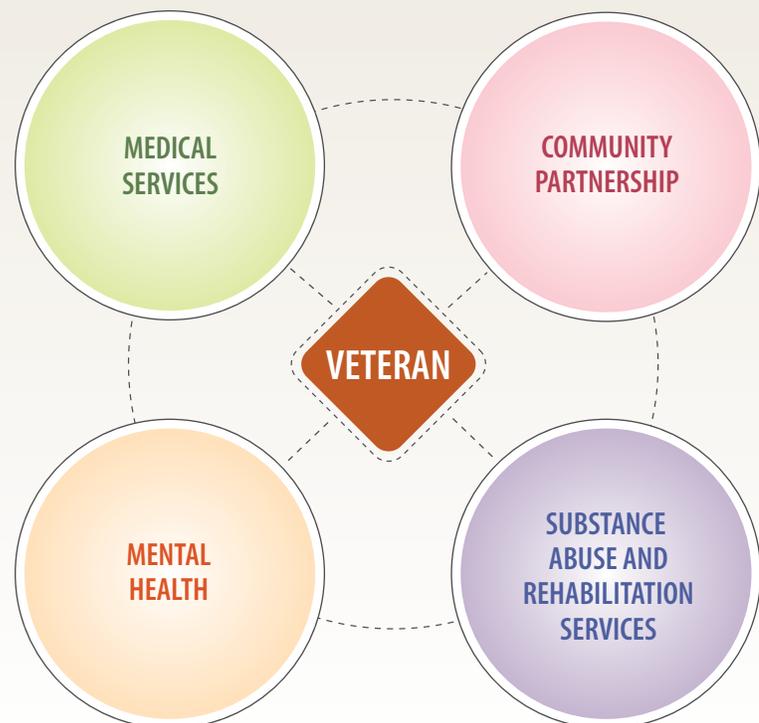
planning, workload reporting, and problem solving. Equally important are successful community partnerships with the local homeless shelters, employment agencies, and county health clinics.

Public Health Mission

THRIVE strives to improve the health and well-being of the vulnerable veteran community, one veteran at a time. Key to achieving this goal is the establishment of a medical outreach team, as well as organizing special events such as the South Bay Stand Down, both of which connect veterans to essential medical and psychosocial services. Grant funding from the Public Health Strategic Health Care Group (PHSHG) has further enhanced both of these efforts.

Figure 1

THRIVE: A HOSPITAL OUTREACH TEAM LINKING VETERANS TO COMMUNITY AND VITAL HEALTH SERVICES.





South Bay Stand Down

In the fall of 2007, the Palo Alto VA hosted a special event, known as the South Bay Stand Down. During wartime, “stand down” is a term referring to an opportunity for front line troops to rest in a safe place before returning to combat. In peacetime, stand downs offer relief to homeless veterans from the everyday struggles for adequate shelter and stability. This three-day event provided homeless veterans with shelter, food, and a wide range of other assistance, such as medical care, Department of Motor Vehicles’ services, legal services, Social Security counseling, employment counseling, and substance abuse treatment (both on-site and through referral).

Homelessness exists in many forms, ranging from people who literally sleep on the streets, to those who stay in shelters and transitional housing, on friend’s couches, and individuals who are institutionalized (i.e., hospitalization or incarceration). Homeless individuals face many daily challenges that many of us take for granted, such as warm showers, clean clothes, healthy foods, telephones, transportation, etc. Through its Public Health Grant Program, the PSHHG provided funding for the stand down, which was used to address public health needs facing homeless veterans, including hygiene, safety, nutrition, transportation, and communication. This funding enabled the purchase of shower sandals, flashlights, alcohol hand sanitizer, VA canteen vouchers, and bus tokens for 142 stand down participants. Shower sandals and hand

sanitizers help prevent communicable diseases. Flashlights are useful in the dark and provide a measure of safety. Canteen books provide a warm, nutritious meal in the VA canteen or can be used to purchase helpful everyday items like clean socks, underwear, and t-shirts from the VA store. The bus tokens help veterans with transportation to medical care and other appointments. (See Table 1)

Medical Outreach

The Public Health Grant was renewed in 2008 and continues to support the work of the medical outreach team, allowing the purchase of more canteen vouchers, flashlights, bus tokens, phone cards, and essentials related to hygiene. The medical outreach team provides health education and primary medical care services to vulnerable (primarily homeless) veterans, and does so in unconventional settings, such as homeless shelters and other community sites. These “storefront” locations offer convenient access to underserved veterans. Health problems that the medical team routinely encounters include hepatitis C, respiratory infections, HIV, MRSA infections, substance use disorders, and many other acute and chronic problems.

Summary

THRIVE has two primary objectives: 1) expand outreach to vulnerable veteran populations; and 2) provide a direct link to medical, mental, and rehabilitation treatment services. Our focus on outreach has increased health care access, health promotion, disease screening, and medical treatment. Individual veterans who have benefited from our outreach discuss our services with their fellow veterans, thus creating an informal community network which, in turn, improves the overall access and health of these vulnerable veteran communities. A greater than 400 percent increase in the number of new veterans served between fiscal years 2004-2007 attests to our achievement of these goals thus far. THRIVE’s achievements were further recognized recently by the presentation of the VA Secretary’s top Award for Outstanding Achievement in Service to Homeless Veterans. This success is attributed to the collaborative partnership of our multidisciplinary outreach team, key community partners, and the mobile medical team. Through our efforts, thousands of vulnerable and underserved veterans, have been provided the health care necessary to improve their lives and “thrive.”

Table 1

THE PUBLIC HEALTH GRANT PROVIDED FUNDING TOWARDS THE PURCHASE OF ESSENTIAL ITEMS THAT ADDRESS THE PUBLIC HEALTH CONCERNS OF HOMELESS VETERANS

ESSENTIAL ITEM	PUBLIC HEALTH CONCERNS
Shower sandals	Hygiene: prevent Tinea pedis and other foot/skin diseases
Alcohol hand gel	Hygiene: basic hand hygiene and prevention of other communicable diseases
Flashlights	Safety: illuminate dark places, especially when vets need to sleep outdoors
VA Canteen vouchers	Nutrition: purchase of healthy meals from the cafeteria. Hygiene: purchase of clean underwear, shirts, socks, etc.
Bus tokens	Transportation: enable veterans to get to appointments (i.e., job interviews, medical)
Gas cards	Transportation: help lower cost of travel to appointments
Phone Cards	Communication: help veteran reach providers, social services, and family
Envelopes/stamps	Administrative: enable veteran to apply for social security and other social welfare services



HIV Screening in Older Patients

Researchers used a Markov model to examine the costs and benefits of HIV screening in patients 55-75 years of age. If the tested population has an HIV prevalence of 0.1 percent or greater, HIV screening in persons from age 55 to 75 years reaches conventional levels of cost-effectiveness when counseling is streamlined and if the patient has a partner at risk. The authors conclude that screening elderly patients for HIV is economically attractive in many circumstances.

Sanders GD, Bayoumi AM, Holodniy M, et al. Cost-Effectiveness of HIV Screening in Patients Older than 55 Years of Age. *Ann Intern Med.* 2008; 148:889-903.

Increasing Employee Influenza Vaccination

This thoughtful commentary analyzes the ethical implications of a variety of efforts to increase vaccination rates among health care workers – including mandatory influenza vaccination. The authors conclude that incentives and sanctions may work better to promote influenza vaccination among health care workers – and pose fewer ethical dilemmas, compared to mandatory immunization.

Anikeeva O, Braunack-Mayer A, Rogers W. Requiring Influenza Vaccination for Health Care Workers. *Amer J Public Health.* 2009; 99: 24-29.

Changing Epidemiology of HIV

This article reviews trends in the epidemiology of the U.S. HIV/AIDS epidemic. The authors note that with improved survival on combination antiretroviral therapy and as cohorts grow older, HIV-infected patients are increasingly affected by chronic diseases, including cardiovascular disease, renal and hepatic disorders, osteopenia, endocrine and metabolic abnormalities, and non-AIDS defining cancers. Liver disease is emerging as a major cause of morbidity and mortality among persons with HIV because of high rates of viral co-infection (HBV and HCV), alcohol use, and antiretroviral drug toxicities.

Buchacz K, Rangel M, Blacher R, Brooks JT. Changes in the Clinical Epidemiology of HIV Infection in the United States: Implications for the Clinician. *Current Infectious Disease Reports.* 2009;11:75-83.

Management of Hepatitis B

The NIH sponsored a consensus conference on the management of hepatitis B in October 2008, addressing a series of issues ranging from epidemiology to unanswered research questions. The consensus statement reviews the benefits and risks of the seven agents currently approved for treatment of HBV, as well as the important clinical issue of differentiating patients who should be treated versus those for whom immediate therapy is not routinely indicated. The panel noted that many of the published reports on HBV therapy look at short-term benefit and that prospective cohort studies and randomized controlled trials of monotherapy and combined therapies are among the most important research questions to be addressed.

Sorrell MF, Belongia EA, Costa J, et al. National Institutes of Health Consensus Development Conference Statement: Management of Hepatitis B. *Annals of Internal Medicine.* 2009; 150:104-110.



PHSHG WELCOMES JO BRABSON AS CHIEF ADMINISTRATIVE OFFICER

Ms. Jo Brabson joined the PSHHG last fall as our new Chief Administrative Officer; she replaces Jim Morrill who was promoted to the position of Director of Operations and Administration in the Workforce Management and Consulting Office. Ms. Brabson comes to our office from her former position at VA Central Office as Administrative Officer with the Office of Congressional & Legislative Affairs. Jo brings a wealth of administrative expertise to our group, and her 22 year service in the United States Air Force helps to ensure a strong Veteran perspective among Senior PSHHG leadership.

VA Public Health Portal Links

- Public Health Strategic Health Care Group
www.publichealth.va.gov/about/pubhealth

- VA Smoking & Tobacco Use Cessation Program
www.publichealth.va.gov/smoking

- VA HIV/AIDS Web site
www.hiv.va.gov

- VA Hepatitis C Web site
www.hepatitis.va.gov

- Infection: Don't Pass It On
www.publichealth.va.gov/infectiondontpassiton/

- Center for Quality Management in Public Health
www.publichealth.va.gov/quality

- New Directive on "National HIV Program" (VHA Directive 2008-082)
www.hiv.va.gov/vahiv?page=prin-va-2008-082

- New Directive on "National Smoking and Tobacco Use Cessation Program" (VHA Directive 2008-081)
www1.va.gov/vhapublications/ViewPublication.asp?pub_ID=1809

Transitions

In July 2008, **Mr. Jim Morrill** was promoted to the position of Director of Operations and Administration in the Workforce Management and Consulting Office. Jim's six-and-a-half-year career in PSHHG was characterized by an unwavering commitment to excellence and accountability. He is greatly missed by his colleagues in PSHHG.

Dr. John Davison has left the Department of Veterans Affairs to join the firm of Booz-Allen Hamilton where he will be providing consultative services to the Deputy Assistant Secretary of Defense in the Force Health Protection and Readiness Office. While at PSHHG, John served as the Managing Editor of this newsletter and was instrumental in developing the emerging Behavioral Public Health Program for Veterans living with HIV and HCV. We wish him well in this next phase of his professional career.

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Contact/Comments

If you have any comments or suggestions, we welcome your feedback. We will read and consider all comments and suggestions but, due to the large volume of correspondence received, may not be able to reply to each individual directly. Comments about this newsletter can be addressed to: publichealth@va.gov.

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