Dear Colleagues:

Welcome to the eighth issue of Public Health Matters. This issue highlights two important topics in Clinical Public Health, including the state of care of hepatitis C virus (HCV) in VA and an article on Brief Alcohol Intervention training.

Our first article summarizes the state of HCV care within VA and mentions two new direct-acting antiviral therapies for HCV treatment that received FDA approval this past spring. VA remains the largest provider of care for chronic HCV in the United States, with evidence of high-quality care being delivered across the system as a direct result of an extremely dedicated and talented workforce. Most patients with chronic HCV are susceptible to other chronic co-morbidities, and a growing number of individuals are progressing to cirrhosis. VA is in a unique and challenging position to increase HCV treatment rates with available new therapies in hopes of reducing the burden of disease in the population.

Our second article focuses on a training program that our office has supported for a number of years, Brief Interventions for Hazardous Drinking in Patients with Hepatitis C. This two-day workshop is an opportunity for front-line clinicians to learn motivational interviewing (MI) skills and how best to conduct brief interventions with individuals who have HCV in addition to abusive or dependent alcohol use. The goal of MI is to identify resistant behavior, explore ambivalence about changing alcohol use, and, ultimately, to enable the patient to explore options for change.

Finally, I would like to take this opportunity during “flu season” to encourage annual flu vaccination as an effective and safe method for preventing influenza and its potential serious complications. It’s not too late to get your flu shot. Protect yourself, your families, and the Veterans you serve!

Wishing you good health,

Janet M. Durfee, RN, MSN, APRN
Acting Chief Consultant, Clinical Public Health
Office of Public Health
The State of Hepatitis C Care in the VA

Lisa I. Backus, MD, PhD; Larry Mole, PharmD; Maggie Czarnogorski, MD

Data from the VA’s National Clinical Case Registry for hepatitis C virus (HCV) confirm the burden of disease in the VA Health Care System and prepare providers for the road ahead as deaths from chronic HCV are expected to rise sharply during the next 10 years.

Veterans Affairs (VA) is the largest single provider of hepatitis C virus (HCV) care in the United States, providing care to over 165,000 Veterans with chronic HCV in 2010. Figure 1 shows the number of Veterans in VA care in 2010 by VISN. Most of this population is believed to have been infected between 1965 and 1975. Given the duration of infection, the consequences of chronic HCV infection are becoming apparent in the VA population. Based on national sampling performed between 1999 and 2002, the prevalence of chronic HCV in the general U.S. population was estimated to be 1.3%.

Since 2005, approximately 160,000 Veterans with chronic HCV have received VA care each year. With six million Veterans receiving VA care in 2010, a crude estimate of prevalence of known chronic HCV in the VA would be 2.8% — twice the rate reported in the general population.

In 2010, the typical Veteran with chronic HCV was white (52%), 58 years old, and male (97%), with a history of co-morbidities, including hypertension (66%) and depression (58%). This group has a significant history of tobacco use (64%) and alcohol use (55%), complicating the management of chronic HCV. The proportion of those in care with advanced liver disease, including cirrhosis and hepatocellular carcinoma (HCC), has grown significantly over the past 10 years. In 2010, nearly one in seven had a history of cirrhosis, and more than 1,300 new cases of HCC were diagnosed.

The over 165,000 Veterans with chronic HCV in VA care in 2010 generated more than 70,000 inpatient stays, more than 6.2 million outpatient visits, and more than 6.6 million outpatient prescription fills. Over 30,000 (36,989) Veterans with chronic HCV had one or more of the 70,393 inpatient discharges in 2010. With regard to outpatient care, Veterans with chronic HCV may be seen for their HCV infection in gastrointestinal (GI), hepatology, primary care, or a combination of these clinics. Veterans with chronic HCV were actively engaged in VA care. In 2010, 92% of Veterans with chronic HCV had at least one visit to primary care, with a median of four visits among those seen in primary care in the year. Thirty-four percent of Veterans with chronic HCV had at least one visit to a GI/hepatology clinic, with a median of two visits in the year among those seen in GI/hepatology clinic. Finally, 33% were seen in both primary care and a GI/hepatology clinic in the year.

Veterans with chronic HCV in VA care in 2010 had high prevalence rates of several co-morbid conditions that complicate their health care (Table 1). With regard to specific liver complications, 5% to 20% of those infected with chronic HCV will develop cirrhosis over a period of 20 to 30 years, and 1% to 5% will die from HCC or cirrhosis. Based on the epidemiology of HCV in the United States and the age of Veterans with chronic HCV, most Veterans with chronic HCV in VA care in recent years were likely infected during the Vietnam War era (1964–1975). Given the natural history of chronic HCV, one would expect to see increasing numbers of conditions related to progression of liver disease, including cirrhosis and HCC. Figure 3 shows significant increases in cirrhosis, HCC, and death in our HCV-infected Veteran population. Once a Veteran develops cirrhosis, he or she is at greater risk for developing complications of cirrhosis,
### Table 1

<table>
<thead>
<tr>
<th>Comorbid condition group</th>
<th>Comorbid condition</th>
<th>Number (%a) with diagnosis ever</th>
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<tbody>
<tr>
<td>Cardiovascular</td>
<td>Cardiomyopathy</td>
<td>4,145(3)</td>
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<tr>
<td></td>
<td>Cerebral vascular conditions</td>
<td>4,895(3)</td>
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<tr>
<td></td>
<td>Congestive heart failure</td>
<td>9,268(16)</td>
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<tr>
<td></td>
<td>Hypertension</td>
<td>109,294(66)</td>
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<td></td>
<td>Ischemic heart disease</td>
<td>25,858(16)</td>
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<tr>
<td>Hematologic</td>
<td>Anemia</td>
<td>36,915(22)</td>
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<td>Hepatic</td>
<td>Cirrhosis</td>
<td>23,337(14)</td>
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<tr>
<td></td>
<td>Hepatocellular carcinoma</td>
<td>3,332(2)</td>
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<tr>
<td>Mental illness</td>
<td>Bipolar disorder</td>
<td>19,862(12)</td>
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<tr>
<td></td>
<td>Depression</td>
<td>96,013(58)</td>
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<td></td>
<td>Neuroroses and anxiety states</td>
<td>57,090(35)</td>
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<td></td>
<td>PTSD</td>
<td>43,930(27)</td>
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<td></td>
<td>Schizophrenia</td>
<td>16,196(10)</td>
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<tr>
<td>Metabolic</td>
<td>Diabetes, type 1 or 2</td>
<td>44,724(27)</td>
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<td></td>
<td>Dylslipemia</td>
<td>64,004(39)</td>
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<tr>
<td>Neurologic</td>
<td>Cerebral vascular conditions</td>
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<tr>
<td>Pulmonary</td>
<td>Asthma</td>
<td>11,225(7)</td>
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<td></td>
<td>COPD</td>
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<td></td>
<td>Emphysema</td>
<td>4,436(3)</td>
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<tr>
<td>Renal</td>
<td>Renal failure, chronic</td>
<td>12,034(7)</td>
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<tr>
<td>Substance use</td>
<td>Alcohol use</td>
<td>90,151(55)</td>
</tr>
<tr>
<td></td>
<td>Illicit drug use</td>
<td>66,281(40)</td>
</tr>
<tr>
<td></td>
<td>Tobacco use</td>
<td>106,186(64)</td>
</tr>
</tbody>
</table>

Note: HCV = hepatitis C virus; COPD = chronic obstructive pulmonary disease; PTSD = post-traumatic stress disorder.

*a Number of veterans in care in 2010 used as denominator: 165,005.

Most Veterans with chronic HCV in VA care in recent years were likely infected during the Vietnam War era (1964–1975). Given the natural history of chronic HCV, one would expect to see increasing numbers of conditions related to progression of liver disease, including cirrhosis and HCC.
Newer agents for the treatment of HCV were approved by the Food and Drug Administration in the spring of 2011. Boceprevir and Telaprevir, a new class of medications called protease inhibitors, have significantly increased response rates in clinical trials when used in combination with pegylated interferon and ribavirin. These new therapies are currently being prescribed to Veterans within the VA health care system, and the numbers started on treatment continue to increase.

VA’s Office of Public Health (OPH) annually reports on quality-of-care measures developed from existing treatment recommendations and clinical practice guidelines (http://www.hepatitis.va.gov). In general, performance of these measures has improved steadily over time, and in 2010 the quality of care was quite high although variation exists across facilities, which suggests continued room for improvement. The OPH has made a number of educational resources available for both patients with HCV and health care providers caring for them. In addition, OPH is collaborating with Pharmacy Benefits Management (PBM) to ensure that VA providers are well informed and knowledgeable about the criteria for use of the new protease inhibitors. Along with the Employee Education System (EES), a variety of educational programs for health care providers are being developed, including a series of live audio conferences and face-to-face meetings focusing on maximizing outcomes for HCV care. Additional resources are available to VA providers and the public at http://www.hepatitis.va.gov/products/index.asp.

Acknowledgments
This report would not have been possible without the dedicated network of local HCV Clinical Case Registry coordinators.

Author disclosures
Drs. Backus, Czarnogorski, and Mole report no actual or potential conflicts of interest with regard to this article.

References
Training Providers to Use Brief Interventions and Motivational Interviewing for Alcohol Use in Veterans with Hepatitis C

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Alcohol use disorders are a potential serious health risk in Veterans with chronic hepatitis C virus (HCV). In 2010, there were 165,005 Veterans in VA care with evidence of chronic HCV. It has been previously reported that 55% of Veterans with HCV in VA care have an alcohol use disorder. It is estimated that of those with untreated HCV, 32% percent will go on to develop cirrhosis by the year 2020. In 2010, of the 165,005 Veterans in care with HCV, 14% had evidence of cirrhosis. We will continue to see a growing number of Veterans with cirrhosis, and disease progression can be exacerbated by alcohol use in some patients. However, alcohol use can be a difficult issue for providers to address. For some Veterans, alcohol use disorders are a chronic struggle that requires continual support over many years. Many providers lack specific skills or tools to address Veterans’ conflicts and difficulties associated with alcohol use. The Brief Alcohol Intervention (BAI) workshop was designed to increase VA providers’ skills in using motivational interviewing (MI) to perform the clinical counseling tasks of a brief intervention (BI) for alcohol use in Veterans with HCV. Providers can use MI and BI skills wherever they provide care to Veterans, including mental health or specialized medical clinics, or in primary care.

Nine BAI Workshops were offered from 2006 through 2010, reaching 359 participants from eight disciplines, including physicians, physician assistants, nurses (nurse practitioners, registered nurses, nursing assistants), social workers, psychologists, and addiction therapists, all with different prior training, experience, and skills. (See Figure 1 for a visual depiction of participants and their occupations.)

Content and Structure of the BAI Workshop

The workshop begins with a review of HCV infection, its effects on the liver and progression of liver disease, and the health benefits of alcohol reduction or abstinence for many individuals with hepatitis C. The training emphasizes practitioners’ developing specific skills: how to assess a Veteran’s alcohol use, how to discuss the health risks of using alcohol when infected with HCV, and how to explore ambivalence about changing alcohol use.

Skills for BI² are summarized by FLO (an acronym developed by Chris Dunn, PhD): F-Feedback on screening results (from AUDIT-C); L-Listening for patient’s reasons for change; and O-Exploring options for change (e.g., cut down, quit, or seek further help). Listening skills used with MI¹⁰ are

Figure 1

Participants of BAI Workshop by Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Nurse,*</td>
<td>31%</td>
</tr>
<tr>
<td>Psychologist</td>
<td>23%</td>
</tr>
<tr>
<td>Social Worker</td>
<td>14%</td>
</tr>
<tr>
<td>Physician</td>
<td>11%</td>
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<tr>
<td>Addiction Therapist</td>
<td>4%</td>
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<tr>
<td>Counselor</td>
<td>4%</td>
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<tr>
<td>Physician Assistant</td>
<td>4%</td>
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<tr>
<td>Coordinator</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
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</table>

*The Nursing category includes LPNs, RNs and Advanced Practice Nurses.
summarized by OARS: O-Open-ended questions; A-Affirmations; R-Reflections; and S-Summarys.

To support the BI and MI framework, materials were developed for providers and presented as a “toolkit,” which includes cards illustrating AUDIT-C scores for alcohol use customized for male and female Veterans, by age group; a brochure about alcohol-related health risks for Veterans with HCV; and a card with the FLO and OARS acronyms. The OARS-FLO card is designed as a reminder and a guide to help providers focus on the tasks of brief intervention and maintain the spirit of motivational interviewing. These tools can be found at [http://www.hepatitis.va.gov/products/index.asp](http://www.hepatitis.va.gov/products/index.asp).

Participants develop and practice BI and MI skills through a series of short exercises, sometimes one-on-one or in small groups of three or four people. Exercises emphasize learning to set an agenda for a brief intervention, communicating empathy, eliciting each Veteran’s reasons for change, and responding to a Veteran’s resistance to advice.

**Use of Standardized Patients during BAI Workshop**

Because participants in the BAI workshops have different backrounds and prior training, we employ standardized patients (SPs), lay people who are trained to portray clinical cases and provide consistent feedback to participants.11,12 SPs offer at least three benefits to participants. First, the descriptions of Veterans with HCV give medical and psychosocial providers standard and relevant cases for practicing BI and MI skills. Second, SPs can be trained to respond flexibly to practitioners’ clinical styles, to become more resistant if confronted or given advice noncollaboratively, and to become amenable to change if engaged using MI skills. Third, skilled SPs can provide feedback to participants about tone and rapport and function partly as trainers.

The practice sessions consist of small groups of four to six participants and one SP. Each participant has approximately 10 minutes to conduct a brief intervention and receive feedback from the SP and fellow participants who observed the interaction. Participants see different ways of conducting brief interventions and motivational interviewing, and how providers from various disciplines approach clinical issues. The BAI workshop enables participants to complete two interventions with different cases and observe and practice various techniques. Workshop trainers also provide feedback to participants during practice sessions.

**Assessing Skills**

To assess workshop participants’ development of MI and BI skills, and to help evaluate the effectiveness of the program, we use telephone interviews between each participant and an SP. This evaluation process contributes to our ongoing quality-improvement evaluation.13 Participants complete a 10-minute role-play with an SP before and after the workshop. The SP portrays a Veteran with a recent diagnosis of HCV, a positive screen for alcohol misuse, and ambivalence about changing alcohol use. Participants were asked to raise the Veteran’s awareness about the impact of alcohol use on liver disease. Evaluations of the interviews focus on MI and BI skills: use of MI is measured using a specific coding system14, while a checklist is used to measure BI elements.15 Future evaluation of the success of this program will include qualitative analysis of the interview data as well. These evaluations will help us understand how providers develop and use skills from the BAI workshop.

Feedback from BAI training attendees has been excellent. Participants report that development of MI and BI skills is of great benefit to the Veterans they serve. Role-playing with standardized patients has been found to be a highly effective method of learning these skills. If you have not already done so, and you are taking care of patients with hepatitis C or other chronic liver diseases, we invite you to consider participating in one of our upcoming workshops.

The BAI workshops will be offered again in the winter and spring of 2012. Look for our workshops announcement letter and application form, which are disseminated broadly within the VHA. An announcement for upcoming trainings will be made available on our website as well at [http://www.hepatitis.va.gov](http://www.hepatitis.va.gov).

**References**


What’s New in Public Health

Adherence to Hepatitis C Treatment

Adherence to therapy with pegylated interferon and ribavirin for hepatitis C virus (HCV) infection has been incompletely examined. A retrospective cohort study, using data from the National Veterans Affairs (VA) Hepatitis C Clinical Case Registry, was funded by the National Institutes of Health, Agency for Healthcare Research and Quality, and Department of Veterans Affairs to evaluate the relationship between adherence to HCV therapy and early sustained virologic response, assess changes in adherence over time, and examine risk factors for nonadherence. The authors concluded that early and sustained virologic responses increased with higher levels of adherence to interferon and ribavirin therapy. Adherence to therapy with both antivirals decreased over time, but more so for ribavirin.


Current Smoking Patterns among HIV-Positive Male Veterans

Cigarette smoking has become an important influence of morbidity and mortality for HIV-positive individuals in the era of highly active antiretroviral therapy. This current study investigated present and past influences on current smoking among HIV-positive male Veterans. The study found that having smokers in one’s environment, being more depressed, and having used alcohol or drugs were associated with having smoked in the previous 30 days, whereas stronger endorsement of attitudes stating adverse effects of smoking was linked to lower likelihood of smoking. Neither having been in a military conflict nor the length of military service was significantly related to current smoking. Conclusions: Implications of this study for the development of smoking-cessation programs targeting HIV-positive Veterans include the importance of altering attitudes about tobacco, treating underlying depression, addressing social influence, decreasing substance use, and increasing awareness of the negative consequences of smoking among HIV-infected individuals.


VA/DoD’s Efforts to Enhance Biosurveillance

The establishment of robust biosurveillance capabilities is an important component of the U.S. strategy for identifying disease outbreaks, environmental exposures, and bioterrorism events. Currently, U.S. Departments of Defense (DoD) and Veterans Affairs (VA) perform biosurveillance independently. This article describes a joint biosurveillance project at the VA/DoD consolidated North Chicago-VA Medical Center. The goal of the study was to evaluate disease surveillance using a biosurveillance application that combined data from both populations. This study found that biosurveillance using ESSENCE in a joint VA/DoD facility demonstrated utility as a tool to improve surveillance and situational awareness in an area with Veteran, active duty, and beneficiary populations. Based in part on the results of this pilot demonstration, both agencies have agreed to support the creation of a combined VA/DoD ESSENCE biosurveillance system, which is now under development.


Featured New Public Health Products

OARS/FLO card: The purpose of this card is to help providers discuss alcohol use with Veterans with hepatitis C. The double-sided card contains tips and reminders: the OARS side discusses motivational interviewing; the FLO side discusses brief interventions.


AUDIT-C Scoring Cards: The Audit-C is given to thousands of VA patients. These cards show how a Veteran’s drinking compares to other Veterans.


**Welcome to CPH**

Dr. Dana Christofferson

Dr. Dana Christofferson joined Clinical Public Health this fall as our new Presidential Management Fellow. Dr. Christofferson will be working with Dr. Kim Hamlett-Berry on tobacco and health policy and programs in VHA as well as some other clinical public health areas. She graduated from Harvard University with a PhD in Biology and Biomedical Sciences in August 2011. She received a BS in Biology from Cornell University. We are excited to have Dana join the Office of Public Health.

**Transitions**

Dr. Larry Mole

Since our last issue, Larry Mole, PharmD, has been named Chief Consultant of Population Health, a new VHA program office within VHA’s Office of Public Health. In his new capacity, he has a central role in leading VHA to use a population health approach for assessing and reporting the health status of the Veterans we serve, and using this information to improve delivery of clinical and public health services throughout VHA. Dr. Mole previously served as National Director of the Center for Quality Management in Public Health, where he oversaw the VA’s National Clinical Case Registry for Hepatitis C (HCV) and HIV, which has been a key tool for improving access to high quality, cost-effective healthcare for Veterans with HIV and/or HCV.

Dr. Mole’s expertise, leadership and vision will be missed within our program, but his skills and experience will serve the VA well in his new role as Chief Consultant of Population Health, and we will continue to work with him in his new position. We wish him well in this new position.

**New VHA Public Health Portal Links of Interest**

**E-Cigarette Information Letter:**
http://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=2438

**DHHS, Combating the Silent Epidemic: Action Plan for the Prevention, Care & Treatment of Viral Hepatitis**
http://www.hhs.gov/ash/initiatives/hepatitis

**Flu.gov:**

**CPH SENIOR STAFF**

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<td>Associate Director, Office of Public Health Surveillance and Research</td>
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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, we may not be able to reply to each individual directly. Comments about this newsletter can be addressed to publichealth@va.gov.

Janet M. Durfee
RN, MSN, APRN, Editor-in-Chief

Ronald Karstetter
Associate Editor

**Mission Statement**

Clinical Public Health (CPH) is a key organizational component of the Office of Public Health, U.S. Department of Veterans Affairs (VA).

CPH’s mission is to improve the health of Veterans and their families by providing leadership, expertise, and services for VA by promoting sound policy and practices for current and emerging public health issues.

This is accomplished through population-based surveillance, performance measurement and other assessments, quality improvement initiatives, clinical practice guidelines, education and outreach, policy development, and research.

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