Considering mental health through a public health lens: the case of HIV and hepatitis C in VA

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Objectives

1. Participants will be able to discuss public health infrastructure in VA
2. Participants will be able to discuss the role mental health can play in a public health approach to health promotion and disease prevention
3. Participants will be able to discuss the specific contributions of mental health issues in the care and treatment of Veterans with HIV and hepatitis C
Outline

- Overview of Public Health
  - International Health
  - Public Health in the US
  - Public Health in the VA
- The importance of mental health in public health
  - HIV, HCV, & Advanced Liver Disease
Public Health Framework

The individual psychologist perspective
- Trained to look at the individual patient in front of us
- Trained in evidence-based practice
  - What works to this disorder in people with X set of factors
  - How MH/SUD issues impact overall health and medical conditions
- Integration into medical clinics

Public health perspective
- Trained to look at populations
- The larger impact of MH/SUD overall in a community (Global, US, VA)
- Looking at MH/SUD as important factors to address as they facilitate overall disease management, treatment and prevention
Overview of Public Health:
Global – US - VA
Public Health

“The science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals”

Winslow, 1920
One picture of Public Health Infrastructure

Global Disease – WHO (UN); USAID; Country-NGOs

US Disease – CDC; HHS; State, Territorial, and Local Health Departments

Veteran Health Care

NCP  OPH  PC-MHI
International health - WHO

- WHO is the directing and coordinating authority for health within the United Nations
- Providing leadership on matters critical to health and engaging in partnerships where joint action is needed;
- Shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge;
- Setting norms and standards and promoting and monitoring their implementation;
- Articulating ethical and evidence-based policy options;
- Providing technical support, catalyzing change, and building sustainable institutional capacity; and
- Monitoring the health situation and assessing health trends.

http://www.who.int/about/en/
WHO – MH/SUD

- Global initiative to address the harmful health impact of alcohol use
- Smoking
- Depression
- Suicide
- Mental disorders/mental health
- Serious Mental Illness
- Violence against women
- Dementia
International health - Peace Corps

Founded in 1961 and volunteers in over 139 countries

Mission:
- To promote world peace and friendship by fulfilling three goals:
  - To help the people of interested countries in meeting their need for trained men and women
  - To help promote a better understanding of Americans on the part of the peoples served
  - To help promote a better understanding of other peoples on the part of Americans
- Volunteers address issues of climate change, pandemic disease, food security, and gender equality and empowerment.
- Collaborates with partner organizations (WHO, USDAID and other NGOs) and using cutting-edge technologies and well-tested best practices to enhance impact.
- My start in public health:
  - Guinea worm eradication and HIV prevention in the Ivory Coast

http://www.peacecorps.gov/about/
Guinea Worm

- Caused by the parasite *Dracunculus medinensis*
- Most common in stagnant water which is easily recontaminated
- Latent symptoms ~1 yr
- Water treatment; filter distribution; education for prevention
- Collaboration with Peace Corps, WHO, UNICEF, CDC, Carter Foundation

Beliefs about origins
- Parasite versus a curse

Beliefs about treating water
- Welcome versus contaminating sacred sites
- Chemicals versus blessings

Not accepting the premise of the problem = big disconnect in solving it

2013 – only 148 cases most in Sudan and some countries in West Africa
One picture of Public Health Infrastructure

Global Disease – WHO (UN); USAID; Country-NGOs

US Disease – CDC; HHS; State, Territorial, and Local Health Departments

Veteran Health Care

NCP  OPH  PC-MHI
Public Health in the US - CDC

- Works to protect the US from health, safety and security threats, both foreign and domestic - chronic or acute, curable or preventable, human error or deliberate attack
- Confronts global disease threats through advanced computing and lab analysis of huge amounts of data to quickly find solutions.
- Tracks disease to find out what is making people sick and the most effective ways to prevent it.
- Brings new knowledge to individual health care and community health to save more lives and reduce waste.
- Detecting and confronting new germs and diseases around the globe to increase our national security – MERS example
- Building on our significant contribution to have strong, well-resourced public health leaders and capabilities at national, state and local levels to protect Americans from health threats.

www.cdc.gov
Public Health in the US - HHS

US government’s principal agency for protecting the health of all citizens and providing essential human services, especially for those who are least able to help themselves.

HHS is headed by the Secretary who is the chief managing officer for a family of agencies, including 11 operating divisions, 10 regional offices, and the Office of the Secretary.

Mission: to help provide the building blocks that Americans need to live healthy, successful lives. We fulfill that mission every day by providing millions of children, families, and seniors with access to high-quality health care, by helping people find jobs and parents find affordable child care, by keeping the food on Americans’ shelves safe and infectious diseases at bay, and by pushing the boundaries of how we diagnose and treat disease.

http://www.hhs.gov/about/
State, Territorial, Local Health Departments -

- Promote public health through policy initiatives, research and service programs.
- Often combined with social services
- Variation across states
- Reportable diseases

- CA Department of Public Health STD Control Branch
  - County Gonorrhea and Chlamydia projects
One picture of Public Health Infrastructure

Global Disease – WHO (UN); USAID; Country-NGOs

US Disease – CDC; HHS; State, Territorial, and Local Health Departments

Veteran Health Care

NCP  OPH  PC-MHI
Public Health in the VA

NCP

Health promotion, disease prevention, health education

Evidence-based policy

Prevention Policy program develops recommendations for clinical preventive services, such as screening tests, immunizations, health behavior counseling, and preventive medicines.

Provide programs, education, resources, coordination, guidance, and oversight for the field to enhance health, well-being, and quality of life for Veterans.

Programs - MOVE

OPH

Leader and authority in public health,

Within VA, public health is the science and practice of promoting health and preventing disease among Veteran and VA staff populations.

In this context, health can be affected by natural or human-made environments, present and past occupations, place in society, gender, and other social or individual characteristics.

Four pillars uphold the ideals, initiatives, services, and programs within OPH:
• Surveillance and epidemiology
• Underserved populations
• Disease prevention, risk reduction, and health promotion
• Public health policy and guidance

http://www.prevention.va.gov/About_Us/About_Us.asp
Office of Public Health

- Post-Deployment Health
- Clinical Public Health
- Population Health
- Occupational Health
- Center for Occupational Health and Infection Control
HHPHP coordinates VA policy and tools for HIV and HCV care in VA
VHA is the largest HIV and HCV care provider in the US

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV</td>
<td>24,318</td>
<td>24,296</td>
<td>25,273</td>
<td>26,033</td>
<td>26,784</td>
</tr>
<tr>
<td>HCV</td>
<td>166,387</td>
<td>165,005</td>
<td>170,119</td>
<td>173,416</td>
<td>174,302</td>
</tr>
</tbody>
</table>

OPH/Population Health
VHA has a sophisticated infrastructure for providing both HIV and HCV care

- VHA spends ~$1.5B annually for HIV and HCV
- Veterans Integrated Service Networks (VISN) receive specific funding for HIV and HCV care
- All FDA-approved HIV and HCV drugs are available to Veterans
- VHA has national and local electronic clinical case registries of all HIV+ and HCV+ Veterans in care
- All VAMCs have HIV and HCV Lead Clinicians
- HHPHP sets policy and supports field providers
The Importance of Mental Health in Public Health: HIV and HCV in VA
Psychiatric disorders are prevalent among Veterans with HIV and/or HCV
HIV
HIV in US

- ~1.15 million HIV-infected persons in the U.S.
- 18% unaware of their HIV status
- Number of people living with HIV in the US has increased
- 40,000 - 50,000 new HIV diagnoses in the US every year which is relatively stable
- Highest risk groups are White MSM followed by Black MSM
- ~25% of new HIV infections are heterosexual
- In women 84% heterosexual contact, 16% IDU

OVERALL: Of the 1.1 million Americans living with HIV, only 25 percent are virally suppressed.
HIV in VA

- 26,784 Veterans with HIV in VHA care in CY 2013
  - 70% are 50 years of age or older
  - 3% are women
  - 48% are African American
  - 40% are Caucasian

- Unique needs
  - High prevalence of psychiatric disorders and homelessness
  - Emerging diseases of aging: heart disease, diabetes, cancer, cognitive impairment
Mental health disorders among Veterans with HIV

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th># Ever with Diagnosis</th>
<th>% Ever with Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bipolar Disorder</td>
<td>2,549</td>
<td>10%</td>
</tr>
<tr>
<td>Depression</td>
<td>15,019</td>
<td>56%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>8,388</td>
<td>31%</td>
</tr>
<tr>
<td>PTSD</td>
<td>4,633</td>
<td>17%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>1,727</td>
<td>6%</td>
</tr>
<tr>
<td>Any Above 5 Diagnosis</td>
<td>16,884</td>
<td>63%</td>
</tr>
<tr>
<td>Dementia</td>
<td>1,037</td>
<td>4%</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>6,605</td>
<td>25%</td>
</tr>
</tbody>
</table>

Number of Veterans in care in year used as denominator: 26,784; [Link](http://vaww.hiv.va.gov/data-reports/ccr2013/Cond-ComEverInCare-Jan14-HIVPARV-2013-All.asp)
Impact of MH on HIV

Depression
- Can impact medication adherence
- Associated with greater use of acute care
- Mood disorders have been associated with accelerated disease progression and decreased immune function

PTSD
- Can impact adherence and engagement in care
- Childhood/early life trauma increases risk of HIV infection

SMI
- High risk for HIV infection
  - IDU, high risk sexual behavior
  - Adherence to both psychiatric and HIV medication – additional challenge
- All-cause mortality more likely for HIV positive Veterans with Schizophrenia, bipolar disorder, and SUD

Cognitive Impairment
## Substance Use Disorders among Veterans with HIV

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th># Ever with Diagnosis</th>
<th>% Ever with Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Use</td>
<td>8,964</td>
<td>33%</td>
</tr>
<tr>
<td>Cannabis</td>
<td>4,255</td>
<td>16%</td>
</tr>
<tr>
<td>Opioids</td>
<td>3,015</td>
<td>11%</td>
</tr>
<tr>
<td>Other &amp; Unspecified Drug Use</td>
<td>6,668</td>
<td>25%</td>
</tr>
<tr>
<td>Sedatives &amp; Anxiolytics</td>
<td>477</td>
<td>2%</td>
</tr>
<tr>
<td>Stimulants</td>
<td>7,334</td>
<td>27%</td>
</tr>
<tr>
<td>Tobacco Use</td>
<td>12,739</td>
<td>48%</td>
</tr>
</tbody>
</table>

SUD impact on HIV

SUD
- IDU’s less likely to access HIV care and meds
- Less likely to be adherent if they are engaged in care
- AIDS-defining illnesses more common
- Mortality higher in substance users

Methamphetamine
- Correlated with increased risk of transmission of HIV
- More than twice as likely as non-users to be HIV positive
- Meth use is associated with higher viral loads and decreased effectiveness of antiretroviral therapy
- Increased high-risk sexual behavior and STDs (MSM and heterosexuals)

Chander, 2006; Nurutdinova, 2012
Integrated HIV care in VA

- Qualitative study of patients and providers in 7 VA HIV clinics to assess implementation of integrated care principles [(Primary Care-Mental Health Integration (PC-MHI)/Patient Aligned Care Teams (PACT)]
- Wide variation in implementation
- Patients in more integrated clinics reported higher satisfaction with their care
- Increased stigma in less integrated clinics, more difficulty accessing care
- Patients and providers reported better relationships with each other in more integrated care settings

Fix, 2014
Integrated HIV care in VA

- A retrospective cohort study of HIV patients from five VA HIV clinics
- Subjects were patients with 3 months or more of follow-up
- Facilities were ranked using an index of integration
  - Care model included specialists from multiple disciplines within a geographically and temporally constrained HIV Primary care clinic
  - HIV specialty services and other services such as treatment for hepatitis C, mental health, substance abuse, social services, etc.
- 1,018 HIV-positive patients were eligible
- Patients seeking care in clinics which offered hepatitis, psychiatric, psychological and social services in addition to HIV primary care were 3.1 times more likely to achieve viral suppression than patients visiting clinics which offered only HIV primary care (Hazard ratio=3.1, p<.001).

Hoang, 2009
OVERALL: Of the 1.1 million Americans living with HIV, only 25 percent are virally suppressed.
HCV
Epidemiology

- **Globally**
  - Every year, 3–4 million people are infected with HCV
  - ~150 million people are chronically infected and at risk of developing cirrhosis and/or ESLD
  - 350,000+ people die from HCV-related liver diseases every year

- **In the US**
  - ~3.2 million people have chronic HCV infection
  - 75%–85% of those infected with HCV will develop chronic infection

Prevalence of HCV - US

Source: HCV Clinical Case Registry; Dominitz JA et al, Hepatology 2005;41:88-96
HCV in VA

- Prevalence was 6.2% and varied by birth cohort:
  - 1.7% for those born before 1945
  - 10.3% for those born during the 1945-1965 period
  - At highest for those born in 1954 (18.4%)
  - 6.5% of men
  - 2.8% of women
  - Highest among blacks (12.3%), followed by Hispanics (6.7%) and American Indians/Alaska Natives (6.6%).

Backus, 2013
Figure Legend:
Prevalence of Hepatitis C Virus Infection by Birth Year
HCV is a major clinical and public health issue for VA...

Over 165,000 Veterans with Chronic HCV in care in 2010
MH/SUD in HCV infected populations compared to the general population

Fig. 1. Increased prevalence of psychiatric co-morbidity in HCV infected populations. Prevalence rates of psychiatric diseases in HCV infected patients were obtained from several publications and mean and standard deviation for prevalence rates were calculated for each disease. Results are based on 10 studies for major depression [18,19,24,121–127], 7 studies for anxiety disorders [18,21,24,121,123,127,128], 6 studies for bipolar disorder [18,19,122,124,127,129], 7 studies for schizophrenia [18,19,122,126,127,129], 9 studies for alcohol abuse [18,19,24,121,122,124–127], 7 studies for other drug use [18,19,24,122,125–127], and 5 studies for fatigue [23,28,130–132].
## Rates of Co-morbid Mental Health Conditions for Veterans with chronic HCV in VHA Care

<table>
<thead>
<tr>
<th>Co-morbid Condition</th>
<th>Number with <em>Ever</em> Diagnosis</th>
<th>Percent <em>Ever</em> with Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bipolar</td>
<td>21,812</td>
<td>13%</td>
</tr>
<tr>
<td>Depression</td>
<td>104,261</td>
<td>60%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>64,420</td>
<td>37%</td>
</tr>
<tr>
<td>PTSD</td>
<td>49,240</td>
<td>28%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>16,565</td>
<td>10%</td>
</tr>
<tr>
<td>Any Mental Illness</td>
<td>120,908</td>
<td>69%</td>
</tr>
<tr>
<td>HIV</td>
<td>5,733</td>
<td>3%</td>
</tr>
</tbody>
</table>

# Rates of Co-morbid Substance Use Disorders for Veterans with chronic HCV in VHA Care

<table>
<thead>
<tr>
<th>Co-morbid Condition</th>
<th>Number with <em>Ever</em> Diagnosis</th>
<th>Percent <em>Ever</em> with Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Substance Use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>96,076</td>
<td>55%</td>
</tr>
<tr>
<td>Cannabis</td>
<td>44,693</td>
<td>26%</td>
</tr>
<tr>
<td>Opioids</td>
<td>38,438</td>
<td>22%</td>
</tr>
<tr>
<td>Stimulants</td>
<td>61,037</td>
<td>35%</td>
</tr>
<tr>
<td>Tobacco</td>
<td>115,625</td>
<td>66%</td>
</tr>
<tr>
<td>Other/Unspecified Drug Use</td>
<td>67,173</td>
<td>39%</td>
</tr>
</tbody>
</table>

Barriers to interferon treatment candidacy

Majority of HCV patients not eligible for treatment or are deferred due to psychiatric and substance use co-morbidities

- 4,084 Veterans with HCV across 24 VA Medical Centers
  - 20.2% recent or on-going substance use
  - 18.3% active psychiatric disorder
  - 17.9% co-morbid medical illness
  - Only 17.7% of patients were actually treated in this study

- 68-83% excluded from treatment across 8 VA studies
  - Main reason for exclusion was MH/SUD

- 22% of Veterans with HCV ever treated in VA (CCR, 2012)

Decisions not to treat HCV patients in a community sample

Table 3. Documented Reasons for Not Treating Hepatitis C in 179 Patients

<table>
<thead>
<tr>
<th>Reason</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and drug abuse with or without depression*</td>
<td>34 (19)</td>
</tr>
<tr>
<td>Severe comorbidity†</td>
<td>28 (16)</td>
</tr>
<tr>
<td>Depression without chemical dependency*</td>
<td>25 (14)</td>
</tr>
<tr>
<td>Refused – no further specifications</td>
<td>23 (13)</td>
</tr>
<tr>
<td>ALT, AST normal levels (NIH guidelines 1997)</td>
<td>19 (11)</td>
</tr>
<tr>
<td>No trial available, no money, no insurance*</td>
<td>15 ( 8)</td>
</tr>
<tr>
<td>Old age (70-85 y)</td>
<td>12 ( 7)</td>
</tr>
<tr>
<td>End-stage liver disease or cirrhosis</td>
<td>11 ( 6)</td>
</tr>
<tr>
<td>Pregnant at diagnosis, treatment not reconsidered*</td>
<td>3 ( 2)</td>
</tr>
<tr>
<td>End-stage HIV infection, with or without hemophilia</td>
<td>3 ( 2)</td>
</tr>
<tr>
<td>Severe language barrier*</td>
<td>3 ( 2)</td>
</tr>
<tr>
<td>Acute hepatitis C</td>
<td>3 ( 2)</td>
</tr>
<tr>
<td>Total‡</td>
<td>179 (100)</td>
</tr>
</tbody>
</table>

ALT = alanine aminotransferase; AST = aspartate aminotransferase; NIH = National Institutes of Health; HIV = human immunodeficiency virus.

* Potentially reversible comorbidities, n = 80.
† Comorbidities include malignancies under treatment, previous cardiac or renal transplant, ongoing renal dialysis, diabetes with severe complication, vasculitis, multiple sclerosis–progression, ulcerative colitis, debilitating migraine headache, aortic aneurysm.
‡ The 179 patients represent 49% of the total 366 study patients.

Rocca, 2004 Management of patients with hepatitis C in a community population, diagnosis, discussions, and decisions to treat
Table 1 Rationale for expanding HCV therapy to patients with mental health and/or substance abuse comorbidities

<table>
<thead>
<tr>
<th>Argument</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A large proportion of patients are deferred from antiviral therapy owing to MH/SA problems.</td>
<td>Evon et al. [8]</td>
</tr>
<tr>
<td></td>
<td>Muir and Provenzale [31]</td>
</tr>
<tr>
<td></td>
<td>Falck-Ytter et al. [32]</td>
</tr>
<tr>
<td></td>
<td>Butt et al. [33]</td>
</tr>
<tr>
<td></td>
<td>Schaefer et al. [34–37]</td>
</tr>
<tr>
<td></td>
<td>Grebely et al. [38]</td>
</tr>
<tr>
<td></td>
<td>Knott et al. [12]</td>
</tr>
<tr>
<td></td>
<td>Sylvester et al. [22, 39, 40]</td>
</tr>
<tr>
<td></td>
<td>Matthews et al. [41]</td>
</tr>
<tr>
<td></td>
<td>Freedman and Nathanson [42]</td>
</tr>
<tr>
<td>2. Despite clinical challenges of treating patients with MH/SA issues, they can be treated safely and effectively, as long as properly supported by a multidisciplinary team that includes MH/SA services.</td>
<td>Zanini et al. [43]</td>
</tr>
<tr>
<td></td>
<td>Bruggman et al. [44]</td>
</tr>
<tr>
<td></td>
<td>Freedman and Nathanson [42]</td>
</tr>
<tr>
<td></td>
<td>Bruggman et al. [45]</td>
</tr>
<tr>
<td></td>
<td>Jacobsen et al. [1]</td>
</tr>
<tr>
<td></td>
<td>Poordad et al. [3]</td>
</tr>
<tr>
<td></td>
<td>Sherman et al. [2]</td>
</tr>
<tr>
<td></td>
<td>Davis et al. [4]</td>
</tr>
<tr>
<td></td>
<td>Deuffic-Burban et al. [6]</td>
</tr>
<tr>
<td></td>
<td>Volk et al. [46]</td>
</tr>
<tr>
<td></td>
<td>Volk [5]</td>
</tr>
<tr>
<td>3. Patients with MH/SA problems can achieve similar SVR rates as patients without these comorbidities.</td>
<td>Davis et al. [4]</td>
</tr>
<tr>
<td></td>
<td>El-Serag et al. [7]</td>
</tr>
<tr>
<td></td>
<td>Lopez-Navas et al. [47]</td>
</tr>
<tr>
<td></td>
<td>DiMartini et al. [48]</td>
</tr>
<tr>
<td></td>
<td>Rocca et al. [49]</td>
</tr>
<tr>
<td>4. The newest antiviral therapy may reduce total duration of therapy to 6 months in nearly 2/3 of patients, thus reducing overall interferon exposure and related neuropsychiatric side effects.</td>
<td>Butt et al. [50]</td>
</tr>
<tr>
<td></td>
<td>Zacks et al. [51]</td>
</tr>
<tr>
<td></td>
<td>Ziekmund et al. [52]</td>
</tr>
<tr>
<td>5. One out of every 30 “baby boomers” is infected with HCV. Over the next 20–30 years, a major liver disease epidemic is anticipated if treatment rates continue as usual.</td>
<td></td>
</tr>
<tr>
<td>6. Despite more “efficacious” drugs, if the majority of patients infected with HCV cannot access the new antiviral treatment, then the “effectiveness” of new therapies on the international HCV public health epidemic will be minimal.</td>
<td></td>
</tr>
<tr>
<td>7. Patients who are “poor HCV treatment candidates” will likely face the same challenges to become suitable liver transplant candidates; thus, the prevention of disease progression in this aging cohort becomes paramount.</td>
<td></td>
</tr>
<tr>
<td>8. Individuals can experience significant HCV-related stigma, which can have a detrimental impact on psychological and social functioning. Advancing these patients towards antiviral treatment may mitigate these negative influences.</td>
<td></td>
</tr>
</tbody>
</table>
The rapidly changing face of HCV treatment

- Interferon-free regimens on the horizon
- Shifting role for mental health providers
  - From pre-treatment evaluations to integrated care
  - Will look more like HIV
- Higher prevalence of MH/SUD than in HIV
- Psychiatric and SUD issues in Advanced Liver Disease
Alcohol Use Increases Cirrhosis Risk


Slide courtesy of Eric Dieperink, MD, Minneapolis HCRC
Variables associated with HCV Disease Progression

**YES**
- Alcohol consumption
- Acquisition >40 y.o.
- Male
- Co-infection HBV or HIV
- Immunosuppression
- Obesity

**NO**
- ALT level
- Viral load
- Transmission mode
- Genotype


Slide courtesy of Eric Dieperink, MD, Minneapolis HCRC
Etiology of advanced liver disease

- Alcohol: 30%
- Alcohol/ HBV: 1%
- Alcohol/ HCV: 25%
- Alcohol/ HBV/ HCV: 4%
- Presumed fatty liver: 16%
- HBV: 2%
- HBV/ HCV: 2%
- HCV: 19%
- Other: 2%

Slide courtesy of Michael Chang, MD  Liver Disease Database.
### Comorbid disease burden

<table>
<thead>
<tr>
<th>Condition</th>
<th>All VA Enrollees (n=5,094,418)</th>
<th>Cirrhosis (n=67,953)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>30.9%</td>
<td>44.8%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>70.8%</td>
<td>77.9%</td>
</tr>
<tr>
<td>Malignancy</td>
<td>17.2%</td>
<td>24.6%</td>
</tr>
<tr>
<td>CAD</td>
<td>37.6%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>71.6%</td>
<td>52.1%</td>
</tr>
<tr>
<td>Substance history</td>
<td>34.5%</td>
<td>73.9%</td>
</tr>
<tr>
<td>PTSD</td>
<td>18.1%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>18.7%</td>
<td>23.7%</td>
</tr>
</tbody>
</table>

*Slide courtesy of Michael Chang, MD Liver Disease Database*
Summary

- Public health has a broad reach
- Mental health has a strong role to play in understanding, treating and raising awareness about the impact of MH/SUD on community health
- Mental health has increasingly recognized and important role in public health
- In HIV and Liver Disease – mental health and integrated care plays a critical role in engagement and treatment
- Stigma reduction
Resources

- VA National Hepatitis C Program
  www.hepatitis.va.gov or vaww.hepatitis.va.gov
- VA National HIV Program
  www.hiv.va.gov or vaww.hiv.va.gov
- CDC: Viral Hepatitis
  www.cdc.gov/hepatitis
- CDC: HIV/AIDS
  www.cdc.gov/hiv
- National HIV/AIDS Strategy
  www.AIDS.gov
References

- Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948. The definition has not been amended since 1948.
- Comulada, 2010
- Gaynes, 2008
- Hinkin, 2001
- Klinkenberg, 2004
Thank you!

Maggie.Chartier@va.gov
Building the HIV/HCV Fellowship Program

- Scope of the problem
  - Evaluation
- Collaboration with OAA
- Training and staffing
  - Fellowship training
  - Seminar
  - Resources
- Community of Practice
Evaluation of pilot fellowship

- Evaluation of Integrated MH/SUD services into HIV clinical care settings
  - Point of referral data collected over 7 month period during all HIV Clinics where psychology was integrated
  - Sample: All HIV clinic patients referred for mental health services to HIV psychology for any reason (N=85)
  - 59 (69.4%) of patients referred were not followed in mental health at time of referral
Demographics for patients not followed in MH/SUD at point of referral

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>57</td>
<td>96.6%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>33</td>
<td>57.9%</td>
</tr>
<tr>
<td>African America</td>
<td>16</td>
<td>28.1%</td>
</tr>
<tr>
<td>Latino</td>
<td>8</td>
<td>14.0%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3.5%</td>
</tr>
<tr>
<td>Age (mean)</td>
<td>54.5</td>
<td>(SD=9.6)</td>
</tr>
<tr>
<td>Hep C</td>
<td>14</td>
<td>24.6%</td>
</tr>
<tr>
<td>VL (# above 40)</td>
<td>22</td>
<td>38.6%</td>
</tr>
<tr>
<td>CD4 (# below 200)</td>
<td>11</td>
<td>19.3%</td>
</tr>
<tr>
<td>ARVs</td>
<td>50</td>
<td>87.7%</td>
</tr>
<tr>
<td>Psych Meds</td>
<td>17</td>
<td>29.8%</td>
</tr>
</tbody>
</table>
Reason for referral

- Depression
- HIV Medication adherence
- Substance use
- Psychosocial stressors
- Adjustment to HIV
- Cognitive complaints
- Severe Mental Illness
- Anxiety

Number of referrals
# Outcome of referral

<table>
<thead>
<tr>
<th>Service Provided</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual psychotherapy</td>
<td>14</td>
<td>24.6%</td>
</tr>
<tr>
<td>Group</td>
<td>5</td>
<td>8.8%</td>
</tr>
<tr>
<td>Clinic check-in</td>
<td>5</td>
<td>8.8%</td>
</tr>
<tr>
<td>Suicide screening</td>
<td>12</td>
<td>21.1%</td>
</tr>
<tr>
<td>Medication adherence</td>
<td>14</td>
<td>24.6%</td>
</tr>
<tr>
<td>Cognitive assessment</td>
<td>7</td>
<td>12.3%</td>
</tr>
<tr>
<td>Referred for treatment</td>
<td>10</td>
<td>17.5%</td>
</tr>
<tr>
<td>Declined services</td>
<td>15</td>
<td>26.3%</td>
</tr>
</tbody>
</table>