Substance Use Disorders
Among Older Adults

Frederic C. Blow, Ph.D.
Professor of Psychiatry
University of Michigan Medical School
and
Director, Serious Mental Illness Treatment Resource & Evaluation Center (SMITREC),
Department of Veterans Affairs
Disclosure

Dr. Blow receives research grant funding from the US National Institute on Drug Abuse, National Institute on Alcohol Abuse and Alcoholism, National Institute of Mental Health, and Department of Veterans Affairs. He has no other conflicts of interest to disclose.
Presentation Overview

• Baby Boomers and substance abuse
• Nature and extent of problem
• Risks and benefits of alcohol use
• Lifetime patterns
• Screening approaches
• Brief Interventions for at-risk drinking
• Substance Abuse Treatment
The Demographic Imperative

• 13 percent of U.S. population age 65+; expected to increase up to 20 percent by 2030

• 78 million ‘Baby Boomers’ (born from 1946-1964) in “Census 2000”
  – Second wave ‘Baby Boomers’ (now aged 35-44) contains 45 million

• Individuals aged 85 and older are the fastest growing segment of the population.

www.census.gov
Demographic Imperative

‘Baby Boomers’ will start retiring in next few years

• Enormous pressure on retirement systems, health care facilities, and other services
• Major implications for substance abuse and mental health prevention and treatment
Estimated Prevalence of Major Psychiatric Disorders by Age Group

Jeste, et al., 1999; www.census.gov
Ethnic Diversity

• Currently, 18% of older adults are members of racial or ethnic minority groups:
  – 8% African American, 6% Latino, 3% Asian or Pacific Islander, and <1% American Indian or Native Alaskans.

• By 2030, 26% of older Americans will be members of racial or ethnic minority groups.

• Changes in ethnic diversity will affect:
  – access and barriers to prevention and treatment,
  – older adults and care provider dynamics, and
  – the need to understand cultural differences in perception of MH/SA problems, care preferences, and response to interventions.
Need for Mental Health Services

- ~ 1/3 of older people in the community who need mental health services receive them.
  - Most receive MH care from a PCP.
- < 1/3 of older nursing home residents who need mental health services receive them.
- Demand for SA/MH services is likely to increase because the Baby Boom cohort tends to:
  - use these services more frequently than current older adult cohort
  - be less stigmatized by seeking services.

Bartels, et al., 2008; SAMHSA
Extent of the Problem
Substance Abuse and Older Adults

#1 Most common addiction: Nicotine (~18-22%)

#2 Alcohol (~2-18%)

#3 Psychoactive Prescription Drugs (~2-4%)

#4 Other Illegal Drugs (marijuana, cocaine, narcotics) (<1%)
Relationship between Alcohol Use and Alcohol Problems

- Low Risk
- At Risk
- Problem
- Dependent

- None
- Light
- Moderate
- Heavy

- Small
- Moderate
- Severe

- Alcohol Use
- Alcohol Problems
WHO Drinking Definitions

- **Harmful drinking**: Use of alcohol that *causes* complications (includes abuse and dependence)
- **Hazardous drinking**: Use of alcohol that increases *risk for* complications
- **Non-hazardous drinking**: Use of alcohol without clear risk of complications (includes beneficial use)
Alcohol Abuse Among Older Women

Epidemiological Studies

- **Prevalence:** 2-12% depending on definitions of at-risk or problem drinking
  - light/moderate drinkers maintain stable pattern
  - heavy drinkers/alcohol dependent tend to reduce or die
  - %? of older women have late onset of risky/heavy consumption
Alcohol Use in Older Adults

- 66% of men, 65% of women used alcohol
- 3% met full criteria for an alcohol use disorder
- At-risk drinking was reported in:
  - 17% of men, 11% of women ages 50+
  - 19% of all respondents ages 50-64
  - 13% of all respondents ages 65+
- Binge drinking was reported in:
  - 20% of men, 6% of women ages 50+
  - 23% of all respondents ages 50-64
  - 15% of all respondents ages 65+

(Blazer & Wu, 2009a)
Functional Impairment and Alcohol

• Among older men and women (60 and older)
  – More than 7 drinks per week associated with impairments in instrumental activities of daily living (IADLs)
    • Impairments to lesser extent with advance activities of daily living (AADLs)
  – More than 3 drinks per occasion associated with IADL impairments

(Moore et al., 2003)
Problem Alcohol Use Increases Caregiver Burden

• Geriatric patients undergoing assessment for cognitive problems (n=349)
• 17.8% had a current or past alcohol problem
  – 35% of men, 9% of women
• Half of those with current or past problem were actively drinking alcohol
• Patients with history of problem alcohol use, regardless of current use and cognitive status, exhibited more behavioral disturbances including agitation, irritability, and disinhibition
• Caregivers of patients with current or past alcohol problems reported significantly higher caregiver distress

(Sattar et al., 2007)
Substance Abuse in Older Adults

An estimated one in five older adults may be affected by combined difficulties with alcohol and medication misuse.
Prescription drug abuse in older adults

- Reduced ability to absorb & metabolize meds with age
- Increased chance of toxicity or adverse effects
- Med-related delirium or dementia wrongly labeled as Alzheimer’s
Non-Medical Use of Prescription Drugs among Older Adults

• Estimated up to 11% of older women misuse prescription drugs

• Factors associated with prescription drug abuse in older adults
  – female sex, social isolation, history of a substance-use or mental health disorder, and medical exposure to prescription drugs with abuse potential

• At least 1 in 4 older adults use psychoactive medications with abuse potential

• By 2020, non-medical use of prescription drugs among adults aged >/= 50 years will increase dramatically

(Simoni-Wastila & Yang, 2006)
Medication Misuse and Alcohol Interactions

• Medications with significant alcohol interactions
  – Benzodiazepines
  – Other sedatives
  – Opiate/Opioid Analgesics
  – Some anticonvulsants
  – Some psychotropics
  – Some antidepressants
  – Some barbiturates

(Bucholz et al., 1995; NIAAA, 1998)
Sedative misuse/abuse

- Self-medicate hurts, losses, affect changes
- Older patients prescribed more benzodiazepines than any other age group
- Butalbital (Fiorinal) contributes to medication rebound headaches
Other Sleeping Pills

- Bind to BZ receptor subtypes
  - Zolpidem (Ambien)
  - Zalaplon (Sonata)
  - Eszopiclone (Lunesta)

- Behavioral pharmacological profile similar to benzodiazepines
  - Drug liking, good effects, monetary street value

- Recommended for short-term use, many taken long-term

- May cause hazardous confusion & falls
Prescribing and Use Patterns for Benzodiazepines

• Older primary care patients (aged ≥ 60) who received new benzodiazepine prescriptions from primary care physicians for insomnia (42%) and anxiety (36%)

• After 2 months, 30% used benzodiazepines at least daily

• Both those continuing and those not continuing daily use reported significant improvements in sleep quality and depression, with no difference between groups in rates of improvement

• A significant minority developed a pattern of long-term use

(Simon & Ludman, 2006)
Opioid Painkillers

**Short-acting**
- Tylenol #3 (codeine)
- Vicodin (hydrocodone)
- MSIR (morphine)
- Percocet (oxycodone)
- Dilaudid (hydromorphone)
- Fentora (fentanyl)

**Long-acting**
- MS Contin (morphine)
- OxyContin (oxycodone)
- Dolophine (methadone)
- Duragesic (fentanyl)
- Exalgo (hydromorphone)
Opioid misuse/abuse

- Use pain med to sleep, relax, soften negative affect
- Dose requirement reduced with age
  - Reduced GI absorption
  - Reduced liver metabolism
  - Change in receptor sensitivity
- Short-acting are the most easily & widely available
- Defeat extended-release mechanism
- Problems
  - Sedation, confusion
  - Respiratory depression
Pain and Alcohol Misuse

• Older problem drinkers reported
  – more severe pain
  – more disruption of daily activities due to pain
  – more frequent use of alcohol to manage pain compared to older non-problem drinkers

• More pain associated with more use of alcohol to manage pain
  – Relationship stronger among older adults with drinking problems than those without

(Brennan et al., 2005)
Impact on Healthcare Providers

• Medication misuse causes adverse health consequences for patient
• Worsens prognosis of coexisting medical and/or psychiatric conditions
• Significant proportion of practice is dealing with consequences of unrecognized/untreated addiction
• Leads to practitioner frustration
Alcohol Use in Older Adults
Age-Related Changes

- Decrease in % body water
- Increase in % body fat
- Higher blood level of water-soluble alcohol and drugs
- Fat-soluble drugs stay in body longer
Age-Related Changes

- Absorption may decrease, slower stomach emptying
- Slower metabolism and elimination

- Delayed drug action, higher risk of ulcers
- Alcohol and drugs stay in body longer
What’s the Harm in a Few Drinks?

• Epidemiologic data suggests moderate drinking can be beneficial for:
  – Heart disease
  – Possibly preventing neurocognitive disorders
  – Low/moderate daily alcohol use most beneficial
  – Social aspects

• Potential confounds
  – Sample selection (fit elders with healthy lifestyles)
  – Surrogate for something else (nutrition, exercise)
  – No clinical trials data
Aging, Drinking and Consequences

• Aging-related changes make older adults more vulnerable to adverse alcohol effects
  – Higher BAC from a given dose
  – More impairment at a given BAC
  – Interactive effects of alcohol, chronic illness and medication

• Implications for older adult drinkers
  – Moderate levels of consumption can be more risky
  – More consequences from maintaining consumption
  – Increased consumption may quickly result in consequences
Recommended Drinking Limits for Older Adults

**Drinking Limits**: no more than one drink per day on average for older men or less than one drink per day on average for older women.

**Binge drinking**: drinking four or more drinks during a single occasion (drinking day) for men or three or more drinks during a single occasion for women.

Centers for Disease Control and Prevention, 2006
What is a Drink?

My Doctor said "Only 1 glass of alcohol a day". I can live with that.
What's a standard drink?
1 standard drink =

- 1 can of ordinary beer or ale 
  12 oz.
- a single shot of spirits 
  1.5 oz.
  whiskey, gin, vodka, etc.
- a glass of wine 
  5 oz.
- a small glass of sherry 
  4 oz.
- a small glass of liqueur or apertif 
  4 oz.
What conditions may be caused or worsened by alcohol use?

- **1 or more drinks per day**
  - Gastritis, ulcers, liver and pancreas problems

- **2 or more drinks per day**
  - Depression, gout, GERD, breast cancer, insomnia, memory problems, falls

- **3 or more drinks per day**
  - Hypertension, stroke, diabetes, gastrointestinal diseases, cancer of many varieties
Lifetime Patterns of Drinking
Lifetime Moderate Drinker

DRINKING LEVEL

High

Low

Young  AGE  Old
Early-Onset Problem Drinker

DRINKING LEVEL

Young AGE Old

High

Low
Early Onset Pattern of Elderly Alcoholism

• More likely to be men (2/3)
• Long-standing behavioral problems
• More physical problems
• Numerous attempts at treatment
• Family members likely to have experienced “burnout”
• Personality characteristics similar to young alcoholics
• More often drop out of treatment
Late-Onset Problem Drinker

DRINKING LEVEL

High

Low

Young

AGE

Old
Late Onset Pattern of Elderly Alcoholism

- More likely to be women (2/3)
- Problem drinking began within several years of multiple losses
  - Death of spouse
  - Physical impairments
  - Diminished social support
- Greater life satisfaction than early onset
- More likely to believe treatment will be successful
Lifetime Patterns of Drinking: Focus for Interventions
Alcohol Abuse and Comorbid Mental Disorders
Comorbidity with Mental Health Disorders

• Concurrent alcohol use and depression may be more common in late life than in younger adults

• Concurrent moderate or at-risk use may be a much greater problem than dependence

• Fragmented care common—many gaps in physical health, mental health, addictions, aging services
Alcohol Abuse: Risk Factor for Psychiatric Illness

- Older adults are **three times as likely** to develop a mental disorder with a lifetime diagnosis of alcohol abuse.
- Common “Dual Diagnoses” include:
  - Depression (20-30%)
  - Cognitive loss (10-40%)
  - Anxiety disorders (10-20%)
Alcohol Use and Suicide

• Alcohol abuse more prevalent in older persons who are separated, divorced, or widowed

• Highest rates of completed suicides:
  – Older white males who are depressed, drinking heavily, and who have recently lost their wives or partners
Screening Approaches
Signs and Symptoms of Alcohol Problems in Older Adults

- Anxiety
- Blackouts, dizziness
- Depression
- Disorientation
- Mood swings
- Falls, bruises, burns
- Family problems
- Financial problems
- Headaches
- Incontinence
- Increased tolerance to alcohol
- Legal difficulties
- Memory loss
- New problems in decision making
- Poor hygiene
- Seizures, idiopathic
- Sleep problems
- Social isolation
- Unusual response to medications
Screening and Assessment

• Alcohol Consumption
  – Quantity, Frequency, Binge Drinking
  – AUDIT-C

• Alcohol Consequences
  – CAGE, AUDIT, MAST, SMAST
  – Elder-Specific: MAST-Geriatric Version, SMAST-G

• Health Screening Survey
  – includes other health behaviors
    • nutrition, exercise, smoking, depression
Screening and Assessment Recommendations for Older Adults

- Every person over 60 should be screened for alcohol and prescription drug abuse as part of regular physical examination
  - “Brown Bag Approach”
- Screen or re-screen if certain physical symptoms are present or if the older person is undergoing major life transitions
Screening and Assessment Recommendations for Older Adults

- Ask direct questions about concerns

  ➞ Preface question with link to medical conditions of health concerns

  ➞ Do not use stigmatizing terms (i.e. alcoholic)
Role of Caregivers

• Influence access to treatment
  – Positive
  – Negative

• Confidentiality
Collateral information

- Family
- Friends
- Senior center staff
  - Drivers
  - Volunteers
- Ask in terms of effects on health problems
- Medication interactions
Motivational Brief
Intervention Methods
## The Spectrum of Interventions for Older Adults

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Drinking</td>
<td>Light-Moderate Drinking</td>
<td>Heavy Drinking</td>
<td>Alcohol Problems</td>
<td>Mild Dependence</td>
<td>Chronic/Severe Dependence</td>
</tr>
</tbody>
</table>

- **Prevention/Education**
- **Brief Advice**
- **Brief Interventions**
- **Pre-Treatment Intervention**
- **Formal Specialized Treatments**
SBIRT MODEL

- Screening
- Brief Intervention
- Referral to Treatment
Empirical Support for Brief Interventions with Older Adults

Project GOAL (Guiding Older Adult Lifestyles)

Physician advice for older adult at-risk drinkers led to reduced consumption at 12 months
(University of Wisconsin; N=156; 35-40% change)

Health Profile Project

Elder-specific motivational enhancement session conducted in-home reduced at-risk drinking at 12 months
(University of Michigan; N=454; 35% change)
Elements of Brief Intervention

• FRAMES
  – Feedback
  – Responsibility
  – Advice
  – Menu
  – Empathy
  – Self-efficacy
Motivating patients not yet ready to quit: The 4 “R’s”

- **RELEVANCE** to that patient
- **RISKS** of continuing to use
- **REWARDS** of quitting
- **REPETITION** at each encounter
Current Knowledge

- Brief Interventions (BI) can reduce alcohol use for at least 12 months among older adults
- Motivational enhancement effective
- Approach is acceptable to older adults and can be conducted in health clinics and in-home
- BI appears to reduce alcohol-related harm
- BI appears to reduce health care utilization
Addictions Treatment for Older Adults
Types of treatment

- Detoxification
- 12-Step groups
- Outpatient counseling
  - Cognitive-behavioral
  - Case management
- Intensive outpatient
- Inpatient
- Residential
12-Step Groups

- A.A., N.A., C.A.
- Group format
- Anonymous
- No cost
- No affiliations or endorsement
- Different groups have different characteristics
  - “Gray A.A.” for Older Adults

12 Steps

1. We admitted we were powerless over alcohol—that our lives had become unmanageable.
2. Came to believe that a power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives to the care of God as we understood him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.
11. Sought through prayer and meditation to improve our conscious contact with God as we understood him, praying only for knowledge of His will and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs.

These steps are from the book, "Alcoholics Anonymous."
Addiction Counseling

- Motivational Interviewing
- Network therapy
- Family therapy
- Supportive psychotherapy
- Building Social Networks

- Twelve-Step facilitation
- Perceptual Adjustment Therapy
- Rational Recovery
- Medication Management
- Brief Interventions
Treatment for older adults

- Focus on coping
  - Depression, loneliness
  - Losses
- Rebuild social support network
  - Socialization groups
  - Alumnae meetings
- More compliant
- Outcomes as good or better than younger patients
Treatment Works for Older Adults

- Sustained remission rates of up to 60%
  - Better success than treatment of hypertension, diabetes
- Every $1 spent on treatment saves $7 in costs to society
- Lots of new research