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Hancock County and Statewide Needs, Resources, and Readiness Assessment on Older Adult Alcohol Abuse

University of Maine Center on Aging

Bucksport Bay Healthy Communities

Coastal Hancock Healthy Communities

Healthy Peninsula Project

Healthy Acadia Coalition

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Hancock County and Statewide Needs, Resources, and Readiness Assessment on Older Adult Alcohol Abuse

August, 2006

Project Research



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Orono, Maine 04469

Project Partners



Healthy Hancock Collaborative Members:

Bucksport Bay Healthy Communities
Coastal Hancock Healthy Communities
Healthy Peninsula Project
Healthy Acadia Coalition

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Maine Office of Substance Abuse

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The UMaine Center on Aging research team on this project was composed of both staff and students who participated in various phases of the research including study design, data collection and analysis, literature review, report writing and editing, and financial management. The research team consisted of: Dr. Lenard Kaye (Principal Investigator); Jennifer Crittenden (Project Coordinator); Jason Charland, Kathy Welch, and Julie-Ann Scott (Graduate Research Assistants); Dr. Winston Turner (Data Analyst); and Susan Fields and Susan Wengrzynek (Field Interns). Mary Peters served as the project's financial manager, Nicholas Cloutier created final report graphs and Laura Albin performed report editing functions.

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Summary of Research and Results

The Issue: Elders and Substance Abuse

The population of U.S. citizens, age 65 and older, is projected to rise from the current level of 12% to 20% by the year 2030. Abuse of alcohol and drugs is currently a serious health problem among older Americans, affecting up to 17%, or eight million adults ages 60 and older. The National Health and Nutrition Examination Survey (NHANES) Longitudinal Analysis of Drinking Over the Life Span indicates that the baby boom generation is likely to maintain a higher level of alcohol consumption than previous generations (Klueger & Resner, 2006; Barrick & Conners, 2002; Bartels, et al., 2005).

In 2001, Eastern Maine Healthcare Systems conducted an extensive community health needs assessment with special emphasis on the issue of substance abuse in Northern, Eastern and Central Maine (Public Health Resource Group (PHRG), 2002). The EMHS study found elevated trends in heavy drinking among older adults age 65 and older in the Hancock, Central and Knox-Waldo regions, and considerably higher rates of binge drinking by that subpopulation in the Hancock County region. Adults 65 years of age and older are nearly five times more likely than their counterparts in neighboring areas and older adults statewide to report chronic heavy drinking in the past month, and twice as likely to report binge drinking in the past month (PHRG, 2002).

In order to more fully understand the needs, resources and readiness necessary to address this issue throughout the state, the University of Maine Center on Aging, in partnership with the Health Hancock Collaborative (Bucksport Bay Health Communities, Healthy Peninsula Project, Healthy Acadia Coalition, and Coastal Hancock Healthy Communities), designed a four-part study that focused on the Hancock County region. The investigation consisted of: (1) twelve focus groups directed at three target groups - professionals, caregivers and older adults throughout Hancock County; (2) a statewide survey of substance abuse, counseling, and social work professionals; (3) statewide key informant interviews of community members, clergy, business owners, local government officials, older adults and professionals; and (4) secondary data analysis of alcohol-related arrests, hospital admissions, substance abuse treatment, payment sources, as well as age and geographic comparisons.

Maine in Relation to the Nation

The resulting analysis revealed that while Maine is currently the oldest state in the nation as measured by median age (40.6 years), there are currently very limited alcohol and substance abuse treatment and prevention options available for Maine's growing older adult population.

Older adults are more apt to struggle with alcohol abuse than other substances, and therefore experience an increased need for appropriate services. While a brief examination of national trends illustrates a somewhat level trend in binge drinking among older adults, Maine's trends have not yet stabilized. According to the most recent Behavioral Risk Factor Surveillance System Trending Data from the years 2002 to 2005, Maine has surpassed national levels of heavy drinking in all years with the exception of 2003 when Maine's rate dipped below the national average (see **Figure 1**) (Centers for Disease Control, n.d.).

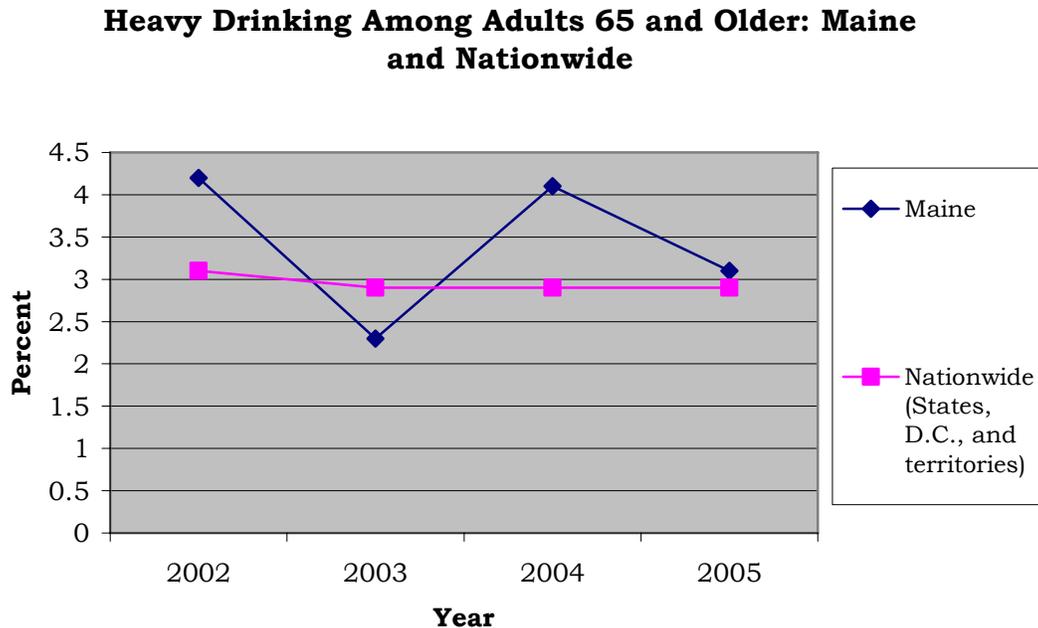


Figure 1: Heavy Drinking Among Adults 65 and Older: Maine and Nationwide

Secondary analysis of treatment data illustrates that only a handful of elders receive treatment for alcohol abuse. In Hancock County, adults 65 and older represent approximately 1% of all substance abuse clients (Maine TDS Data, fiscal years 2003-2004). In general, older adults experience a number of risk factors that can elevate the potential for developing problems with alcohol, including an increased incidence of chronic illness and disease, multiple loss and grief experiences, isolation and segregation within the community, and limited income and financial resources. There is a greater likelihood that older adults are taking multiple prescription drugs, which can amplify the effects of alcohol and pose serious adverse health risks. They may be experiencing varying degrees of memory loss, causing older adults to forget to take their medication potentially resulting in the mixing of alcohol and prescription drugs (Luggen, 2006; Messinger, 2002). Fifty-two percent of professionals statewide and 46% in Hancock County report having at least monthly contact with an older adult whom they believe to be abusing alcohol. Hospital data suggest an increasing trend in alcohol-related healthcare treatment. Among those surveyed, thirty-seven percent of professionals statewide and 23% in Hancock County reported at least monthly contact with an older adult who is experiencing

alcohol-related health problems. In addition to the risk factors for alcohol abuse, there is also a tendency for Maine's older adults to resist asking others for help, according to our focus group discussions, key informant interviews, and survey respondents.

Barriers to Addressing Substance Abuse and the Elderly

Barriers to addressing and treating this problem including denial by the community that a problem exists, a lack of awareness that a problem exists, and a general lack of knowledge about available treatment options were found among all project stakeholder groups (older adults, healthcare providers, caregivers and other community members). In addition, pervasive myths allow substance abuse to continue and may keep people from seeking out the treatment and help they need: (i.e., Why bother treating the older adult?; It's all they have left; Older adults don't change/won't change/are unmotivated to change). Caregivers, older adults, and professionals who participated in the focus groups expressed concerns related to the fact that older rural residents often face a lack of transportation and must travel long distances to access existing treatment and prevention services. This geographic obstacle is compounded by poor traveling conditions due to Maine's harsh winter climate. Finances represent another substantial barrier; it is often difficult for older residents to pay for substance abuse counseling. According to survey results, more than half of the surveyed providers do not accept Medicare payment for their services, and there is a lack of alternative funding programs to meet the needs of older adults. According to the professionals who participated in project focus groups, older adults also exhibit evidence of personal psychological barriers such as stigma, shame and denial that keep them from seeking help with substance abuse issues.

Barriers to Addressing and Treating Substance Abuse in Older Adults

- ❖ Myths that older adults are incapable of changing their behavior and that alcohol is all they have left
 - ❖ Denial by community that there is a problem
 - ❖ Lack of transportation to treatment and prevention services
 - ❖ Inability to pay for formal services (financial barriers)
 - ❖ Personal emotional psychological barriers (stigma, shame, denial)
 - ❖ Lack of knowledge among providers about where to refer older adults
 - ❖ Lack of geriatric mental health practitioners
- ❖ Lack of awareness among older adults and caregivers of where to go for help

Allies and Resources in Substance Abuse Education, Prevention and Treatment

Older adults and caregivers felt that their first stop for information would be to consult with a healthcare provider (primary care physicians, nurses, etc.), though focus group

participants from the medical community reported little knowledge or specific training that focuses on older adult alcohol abuse, and uncertainty as to where to refer their elderly patients for treatment. Existing treatment services for older adults require at least a one-hour drive each way for many Hancock County residents.

Key Resources for Professionals

- ❖ Alcoholics Anonymous (AA)
- ❖ Office of Substance Abuse Information Resource Center
- ❖ Substance abuse treatment and prevention professionals
 - ❖ The recovery community
- ❖ Substance Abuse and Mental Health Service Agency (SAMHSA)
 - ❖ Centers for Disease Control (CDC)
- ❖ 2-1-1 - Maine's statewide service information system

Alcoholics Anonymous (AA) and other support group interventions were identified by professional focus group members and survey participants as effective methods of treatment for older adults. This finding is corroborated by Luggen (2006), who reported that 33% of calls to AA are from older adults, illustrating that they do seek out this form of treatment, and some enroll and learn to control their drinking effectively. However, success in AA is most common with those who enrolled earlier on in life, indicating that they have had long-term struggles with alcohol abuse which resurface in their later years. For those who begin drinking later in life, personalized one-on-one therapy and same-age treatment groups are often the most beneficial and clergy and caregivers are often in the position to provide more effective intervention and treatment than other stakeholders (Barrick & Connors, 2002; Benschhoff & Harrawood (2003); Brennan & Moos, 1996; Moos, Brennan & Schutte, 2005).

Resources available to those interested in program planning and research on this topic include (as identified by focus group participants, key informants, professionals surveyed, and the literature): Office of Substance Abuse Information Resource Center (Augusta, Maine), Substance abuse treatment and prevention professionals, the recovery community, Substance Abuse and Mental Health Service Agency (SAMHSA), and the Centers for Disease Control (CDC). Key partners to help with this issue are community members—including older adults, caregivers, professionals, clergy, town leadership, substance abuse treatment providers and groups (e.g., AA), agencies providing substance abuse treatment, home health professionals, hospital administrators, local, county, and state government officials, Healthy Hancock Collaborative members, and the healthcare community (doctors, nurses, etc.).

Key Partners in Addressing the Issue of Older Adults Struggling with Substance Abuse

- ❖ Older adults
- ❖ Caregivers
- ❖ Professionals
- ❖ Town leadership
 - ❖ Clergy
- ❖ Town, county and state officials
- ❖ Substance abuse and treatment providers
 - ❖ Home health professionals
 - ❖ Hospital administrators
- ❖ Healthy Hancock Collaborative Members
 - ❖ Healthcare community: doctors, nurses etc.

Recommendations for Action

Advocates and Policy Makers

Based on the results of this study, we recommend that advocates and policymakers provide an increased level of support to professionals, caregivers, and older adults in an effort to prevent and treat substance abuse among people ages 65 and older. Healthcare providers including doctors, nurses, social workers, home health professionals, and direct care workers should be encouraged to engage older adults in conversations about alcohol use and abuse, and advocate for positive systems changes to improve current treatment and prevention initiatives. This could include, but is not limited to: the creation of an electronic clearinghouse of materials including websites, research articles, a resource directory and treatment information; advocating for reimbursement for geriatric substance abuse treatment; increasing the educational opportunities available to professionals in the field who want to learn more about expanding their practice with older adults; and encouraging funders to develop creative funding streams for the implementation of formal and informal treatment and prevention programs. In addition, user-friendly educational materials should be available to older adults and their caregivers in locations that are accessible and anonymous, including libraries and healthcare offices.

Healthcare Professionals

Healthcare professionals should receive support and training to enhance awareness of elder alcohol abuse, in general, and to improve the ability of practitioners to discern the signs of substance abuse in elderly patients from the natural signs of aging. Bloodshot eyes, sluggish pupil reactions, facial flushing, protruding veins, gait irregularities, gastrointestinal damage, blood pressure, heart, and liver problems, along with dementia can be associated with or intensified by substance abuse (Luggen, 2006, Thomas & Rockwood, 2001). For this reason, it is recommended that screening for alcohol abuse be integrated into the protocol for routine health examinations with elderly patients. If signs of possible substance abuse are present, medical professionals should be provided with the training needed to be able to facilitate a discussion about substance abuse issues with older adults and their caregivers during routine medical visits. Often a medical professional has the best access to information that would indicate adult-onset substance abuse.

Materials to Benefit Professionals Working with Older Adults and Substance Abuse:

- ❖ Websites
- ❖ Research articles
- ❖ Resource directories
- ❖ Listings of most common symptoms mistaken for signs of aging
- ❖ Treatment information

In Maine, a systematic approach is needed to engage all stakeholders in appropriately screening, diagnosing, treating, and referring older patients with alcohol abuse issues. The Maine Office of Substance Abuse is seen as a key convener of statewide stakeholders on this issue, including healthcare systems and providers, to identify and ultimately adopt a reliable brief screening and referral protocol that can be instituted across a wide range of healthcare settings.

Healthcare providers and researchers should also be encouraged to explore models of integrated healthcare strategies that streamline referral from healthcare providers to substance abuse treatment providers in an effort to reduce the stigma associated with seeking help for this issue. In Maine, a systematic approach is needed to engage all stakeholders in appropriately screening, diagnosing, treating, and referring older patients with alcohol abuse issues. The Maine Office of Substance Abuse is seen as a key convener of statewide stakeholders on this issue,

including healthcare systems and providers, to identify and ultimately adopt a reliable brief screening and referral protocol that can be instituted across a wide range of healthcare settings.

Program planners are urged to develop models of treatment and prevention that are integrated into community life rather than distinct and separate services. For example, strategies for more “elder-friendly” treatment include using local age-specific groups, individual, and home-based services for older adults struggling with substance abuse. In addition, to address the barrier created by the associated costs of substance abuse treatment, the state of Maine should investigate the models currently being utilized by other states for potential innovations in the reimbursement of substance abuse services for older adults.

Researchers

The literature review process undertaken for this study has revealed considerable gaps in the research literature regarding the issue of older adult alcohol abuse. One area that warrants further exploration includes determining the impact of the current baby boom population on alcohol and substance abuse treatment systems. While research reveals speculation on the impact this group will have on treatment, what is not yet clear is the financial impact on these systems and what, if any, changes will need to be made to accommodate such a large group of (soon to be) older adults. Interventions specifically designed for older adults need further exploration as well as research that will formulate evidenced based models of intervention. In a rural state like Maine with limited resources, it is essential that researchers and practitioners investigate and identify cost-effective models of service delivery for older adults and their caregivers. While other states struggle with many of the same issues that Maine faces, there are also lessons to be learned with respect to reimbursement and treatment implications for serving a hard to reach population.

Community Members, Local Leaders, and Community Organizers

Community members, older adults, family caregivers, concerned citizens, and municipal officials should be motivated to support initiatives that will raise awareness of the extent of the problem of alcohol abuse, and should be encouraged to pursue strategic initiatives that increase prevention efforts within the community. Multimedia campaigns that focus on “breaking the silence” and managing alcohol consumption appropriately modeled after currently successful campaigns for other health topics (smoking cessation, osteoporosis prevention, heart disease, etc.), could be used to raise awareness surrounding the issue of older adult alcohol abuse. At the local-level, initiatives that empower older adults and provide social outlets and opportunities for community involvement such as senior resource councils, intergenerational activities, discussion groups, senior exercise classes, chem-free community events could help combat feelings of loneliness and isolation that are linked to substance abuse. Currently, many Hancock County communities have such gatherings including “Get Strong-Get Healthy” exercise classes, coffee

talk groups, and annual community events. When such opportunities are available, transportation may be an additional barrier to keeping older adults engaged. Creative networking and problem-solving is needed to help older adults get to such events. In addition, educational materials for older adults and their caregivers should be placed in locations such as libraries and healthcare offices to increase accessibility to the information, while promoting individual anonymity.

Community-Based Initiatives to Prevent/Treat Substance Abuse

- ❖ Older adult substance abuse multimedia campaigns dedicated to breaking the silence
 - ❖ Elder community involvement
- ❖ Educational materials for older adults and caregivers in libraries and healthcare offices

Resources for Those Who Educate Professionals

Supervisors, professionals, organizations, educators, and others who regularly work with substance abuse counselors and social workers should note the following areas of need for professional education. Seventy-two percent of our survey respondents indicated that they would like more information on the local resources available to them to help older adults with substance abuse issues, and 62% requested information on treatment options for this specific age group. Forty-six percent felt that they needed more education on older adult alcohol abuse symptoms and signs, while 35% felt that they needed more information on how to assess substance abuse among this population in general. In addition, 37% noted that they would like to be better equipped to respond to the impact of older adult alcohol abuse upon caregivers and other family members.

According to survey results, professionals prefer to receive information regarding treatment options predominantly through organizations that offer expertise in the issue (70%), via the internet (68.5%), and also from their colleagues (57.5%). Local libraries (11.9%) and television (5%) were also cited as avenues utilized by professionals to access substance abuse information. Professionals identified web-based resources (65.3%), and research articles (62%), as the most helpful to them in their professional work. However, according to our literature review, there appears to be a gap in the counseling literature regarding older adult substance abuse (Williams, Ballard & Alessi, 2005). Though many professionals turn to academic journals and other well established journals for information on this topic, there is a distinct gap in such literature on treatment issues for older adults. Based on this finding, it is recommended that more studies be undertaken in the area of treatment and prevention for older adults, and the findings published both in professional journals and via the internet. When possible, such findings should

be translated and made available through a wide-variety of avenues that are attractive to professionals including books, pamphlets, newspaper articles, online tutorials, videos and other electronic formats.

Strategies to Engage Older Adults in the Community

- ❖ Senior resource councils
 - ❖ Discussion groups
 - ❖ Senior exercise classes
 - ❖ Chem-free community events
- ❖ Creative transportation solutions to help older adults get to events

Background/Overview

Description of the Subpopulation and Overview of Relevant Cultural Characteristics

The subpopulation for the focal point of this research consisted of older individuals (adults 65 and over) living in Maine generally, and, more specifically, those living in Hancock County. There are several profile characteristics which confirm that adults 65 years and over are a distinct and identifiable cultural subpopulation. Identifying factors that set older adults apart include: an increased incidence of chronic illness and disease; the greater likelihood of experiencing multiple losses and grief; isolation and segregation within their community; similar benchmark life experiences (i.e., retirement, widowhood); inadequate insurance and retirement benefits and, accordingly, limited income and financial resources; and the changing roles and relationships they assume within family and society as the aging process progresses.

Focus group data suggests that older adults are most often receptive to information through caregivers, trusted friends, and, most importantly, healthcare providers.

Additionally, there is a greater likelihood that this population will be taking multiple prescription drugs, and have the inclination to resist engaging in personal “help seeking” behaviors. While many older adults decline formal help from social service providers and other helping professionals, focus group data suggests that older adults are most often receptive to information through caregivers, trusted friends, and most importantly, healthcare providers. It is important to remember that this particular cohort of individuals places a great deal of trust in medical providers. With regards to substance abuse information, this population feels most comfortable discussing alcohol concerns with a physician. Analysis of secondary sources illustrates that hospitalization for older adults at Blue Hill Memorial Hospital are on the rise (see **Figure 2**), placing healthcare professionals in a position to provide early intervention.

Interrelated Geographic, Health, and Cultural Factors

Geographic Profile

The 2000 Census reports that 14.4% of Maine’s population is composed of persons age 65 or older (183,402). Projections indicate that by 2025 this segment of the population will grow to an estimated 327,000 persons, a growth rate of 72%. In the next 20 years older adults will make up over 20% of Maine’s general population, and the ratio of working-age persons to older citizens (a key measure of productivity), will decline from 5-1 presently, to 3-1 in 2025 (Donahue, 2005). Recent census figures reveal that the median age in the state is now 40.6

years, making Maine’s population the oldest state in the nation (Churchill, 2005). The 65 and older, and 75 and older subgroups in the Hancock region are 15-20% larger than those in similar communities in Maine, and as compared to the State as a whole (PHRG, 2002). Hancock County has a total of 8,259 residents who are 65 and older; this represents 16% of the total county population (Maine Bureau of Elder and Adult Services, 2003).

Blue Hill Memorial Hospital Emergency Department Cases with Alcohol Diagnosis

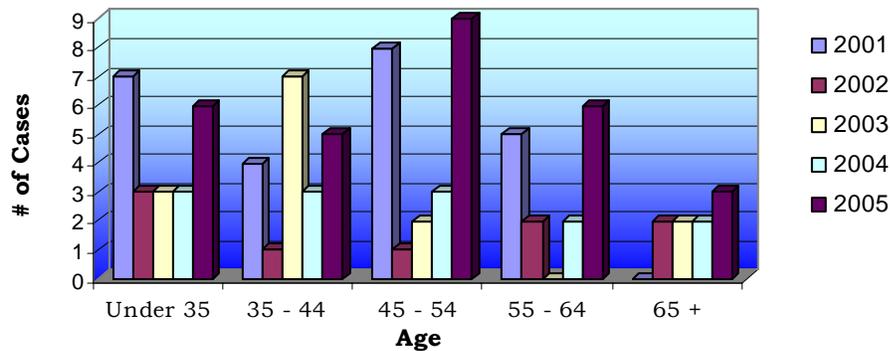


Figure 2: Blue Hill Memorial Hospital Emergency Department Cases with Alcohol Diagnosis by Age

Maine ranks second nationwide for percentage of residents age 65 and older living in rural areas (55.8%), compared to 21.7% nationally (AARP, 2002). At the same time, Maine ranks fourth in the nation for percentage of residents age 65 and older living between 101-200% of the federal poverty level. Ten percent of persons age 65 and older in Maine have incomes below the official federal poverty level (AARP, 2002). Socioeconomic conditions in the Hancock region, including the high rate of uninsured citizens, may limit access to healthcare services, as well as contributing to poorer health status (PHRG, 2002).

“In the next 20 years older adults will make up over 20% of Maine’s general population and the ratio of working-age persons to older citizens (a key measure of productivity) will decline from 5-1 [presently] to 3-1 in 2025” (Donahue, 2005).

Health of Elderly Population

Significant concerns regarding older adults and chronic disease are identified in the Eastern Maine Healthcare Study (which includes a special focus on substance abuse and health planning in the Hancock region) (PHRG, 2002). The report underscores that as its population ages, overall health status in the Hancock region can be expected to decline, while the need and

demand for health services can be expected to increase. Based on secondary data research, **Figure 3** illustrates increases in admissions into substance abuse treatment in Hancock County from fiscal years 2002-2004. **Figure 4** below further illustrates substance abuse treatment admissions due to alcohol abuse in Hancock County compared to the remainder of the state of Maine.

Hancock County Substance Abuse Admissions Over Time: Percentage of Clients with Alcohol as Primary Substance of Abuse by Age Category (TDS Data)

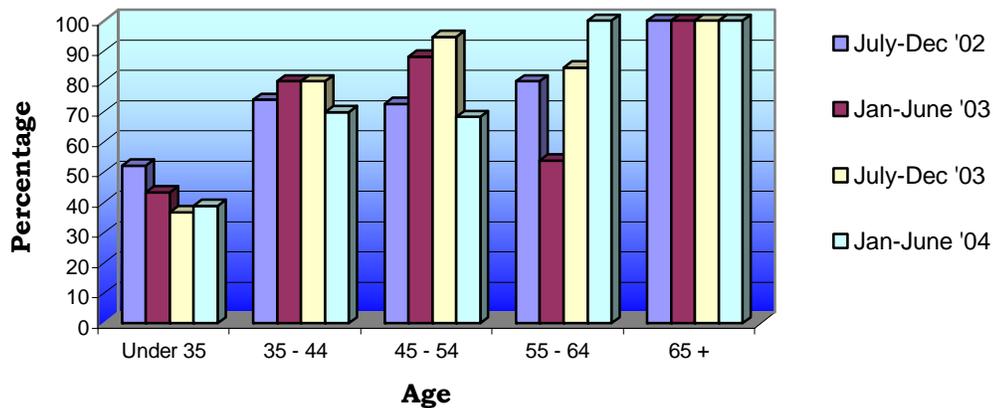


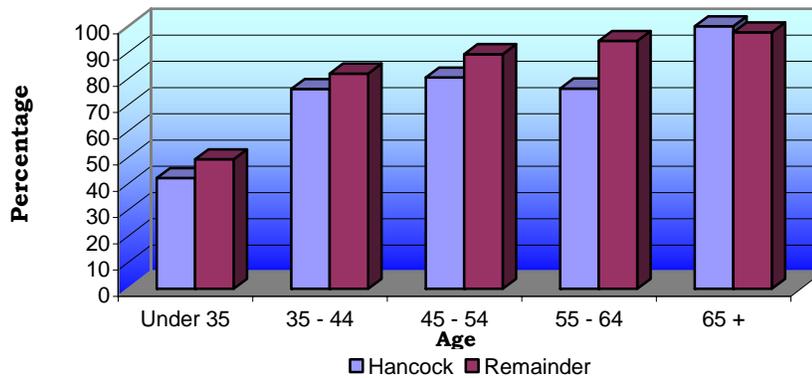
Figure 3: Hancock County Substance Abuse Admissions Over Time: Percentage of Clients with Alcohol as Primary Substance of Abuse by Age Category

In particular, it is emphasized that prevention initiatives geared toward reducing unhealthy lifestyles are needed to reduce the risk for future elevated levels of chronic disease (i.e., high levels of heart disease, atherosclerosis, and stroke) in the Hancock County population. In that geographic region, the rate of atherosclerosis deaths (a chronic disease in which thickening, hardening, and loss of elasticity of the arterial walls result in impaired blood circulation), among the elderly is nearly twice as high as the rate in the peer group (similar regions within the state), or state. Moreover, rates of heart attack and stroke deaths among older adults are 20-25% higher in Hancock than the peer group or state rates. Certain forms of respiratory disease mortality rates are also elevated among older adults in the Hancock region. For example, older adults are 60%-70% more likely than their peer group or state counterparts to die from pneumonia/influenza despite the high rates of pneumonia and influenza vaccinations in the community.

To further underscore the concerns of older adults residing in Hancock County, escalated geriatric mental illness rates were also identified in the EMH study (PHRG, 2002). Mental health morbidity is high in the Hancock region, especially among older adults. Depression prevalence among Hancock's elderly (16%) was higher than in most other study regions. Hospitalization rates for senility/organic mental disorders were twice as high among older adults in the Hancock region as they were among older adults in the peer group, and 40% higher than

rates among older adults in the state as a whole. A similar pattern emerged for hospitalizations related to depression, anxiety and other mental illnesses. Suicide mortality in the Hancock region is nearly twice that of the peer group and state and is among the highest in Northern, Eastern and Central Maine regions. According to the Eastern Maine Healthcare report, older adults in the Hancock region face significant mental health and substance abuse issues (PHRG, 2002).

**Hancock County Substance Abuse Treatment Admissions versus Remainder of State:
Percentage of Clients with Alcohol as Primary Substance of Abuse by Age**



3333

Figure 3: Hancock County Substance Abuse Treatment Admissions versus Remainder of the State: Percentage of Clients with Alcohol as Primary Substance of Abuse by Age

Twenty percent of the Eastern Maine Healthcare Health Planning Assessment survey respondents from the Hancock region identified alcohol and drug abuse as the biggest health problem in their communities. Figures uncovered during our secondary data analysis also compliment this finding. **Figure 5** illustrates the percent changes in total substance abuse violations in Hancock County from 1996-2004. After a large increase in 2001, substance abuse rates fluctuated, yet remained significantly higher than in 2000.

**Percentage Change in Total Substance Abuse Violations from Previous Year
- Hancock County Totals -**

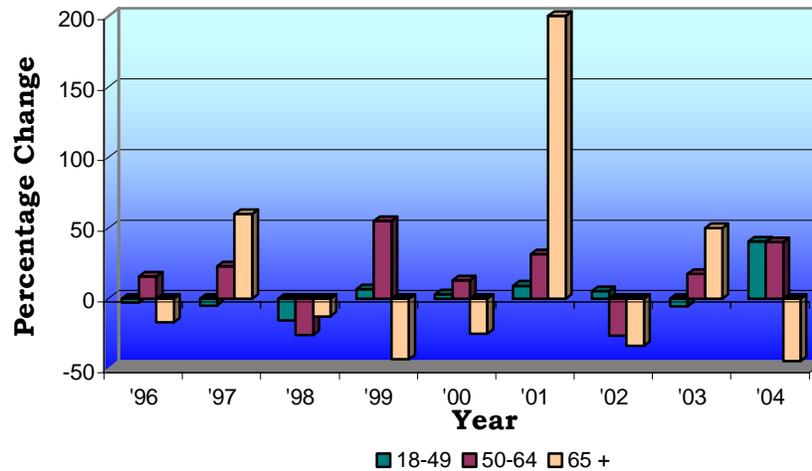


Figure 4: Percentage Change in Total Substance Abuse Violations from Previous Year: Hancock County Totals

Furthermore, PHRG found that Fifty percent of their survey respondents reported a need for additional alcohol and drug abuse treatment services, and residents were most likely to identify alcohol and drug abuse, along with the cost of healthcare, as the most significant health problems in the community. Focus group findings from Center on Aging study suggest that the Hancock County older adult population is dispersed throughout the rural region and lacks social connections to other members of the community. One key informant noted that, currently, there is a lack of respect for the elderly which had been present in past generations. Instead, the elderly are forgotten and isolated from the community.

Barriers to Elders Receiving Help

“People don’t have a deeper respect for them [the elderly] like they used to in past times. They have become forgotten members of the community.”

(Key informant interviewee)

The lack of public transportation in this rural region makes it difficult for elderly members to leave their homes, especially during the harsh weather that accompanies Maine winters. In addition, experts in geriatric issues and alcohol abuse in the state of Maine, voiced that the majority of older adults who choose to attend AA meetings and substance abuse

counseling tend to successfully complete the program and control their alcohol intake. However, throughout the focus group discussions and key informants interviews it was suggested that most elderly adults are resistant to attending organized meetings, and make up a small minority of participants in these programs. A key informant explained, “You have to remember that substance abuse was not considered a disease until 1956. Many older adults see it as a personal weakness, or character flaw, and hide it out of shame. The stigma is definitely still present. Healthcare professionals need to bring it up, framing it as a medical, not moral, issue that needs to be addressed by all members of society, including elders.”

“You have to remember that substance abuse was not considered a disease until 1956. Most older adults see it as a personal weakness or character flaw and hide it out of shame. The stigma is definitely still present. Healthcare professionals need to bring it up, framing it as a medical, not moral, issue that needs to be addressed by all members of society, including elders.” (Key informant interviewee)

Two key factors cited by survey respondents and key informant interviewees are transportation barriers, and Medicare and Medicaid reimbursement issues as obstacles for many older adults seeking help from treatment programs and facilities. In addition, according to focus group participants and key informants, older adults are culturally from an era during which alcohol and drug abuse were attributed to a moral deficit, rather than identified as a health issue, and therefore it was something to keep hidden to avoid embarrassment and shame.

Within the focus groups and key informant interviews, respondents suggest that one barrier to seeking help can be found in the “Maine culture” that values self-reliance and privacy over seeking help and relying on others. Often because of this “pull yourself up by your bootstraps” mentality, older adults, and those close to them, often feel uncomfortable seeking help; seeing intervention from those outside the family as meddling, or judgmental. Drinking is considered a private issue. In addition, drinking alcohol is perceived to be socially acceptable, and many folks from the respondent group came of age during the peak of “cocktail hours”. Social drinking with dinner, and a night cap (traditions often carried over from youth), can put older adults beyond the recommended limit for their age group. In addition, a number of Maine counties (including Hancock) have economies that are often driven by seasonal and physically demanding work, and there is a perception that hard work and hard play (including alcohol consumption after hard work) go well together. In short, drinking is considered a natural, socially acceptable component of the local culture for elders in Hancock County, and many other areas of the state as well.

Where do older adults turn to for help with substance abuse issues?

- ❖ Medical professionals
- ❖ Clergy

Potential Allies in Preventing and Treating Substance Abuse in the Elderly

Eleven out of 12 focus groups identified physicians –whom the elderly population views as authorities – to be the prime candidates for, and hold a natural role in providing counsel and advice to older adults with substance abuse issues. For this reason, many older adults refuse to seek help from drug abuse counselors. Focus groups revealed that sharing such personal issues with friends and families may also invoke feelings of shame, though friends and families were included as potential sources of support by four focus groups: two caregiver focus groups, one older adult focus group and one professional focus group. Five (25%) key informant interviewees recommended that programs be instituted to train doctors on how to counsel older adults who are struggling with substance abuse without sounding judgmental or accusatory. The clergy was also cited by five different focus groups (two of professionals, one of caregivers, and two of older adults) as candidates older adults would seek out.

The medical community represents a likely ally, given findings in the literature that suggests a multitude of co-occurring medical issues for older adults who abuse alcohol. This is often due to the fact that older adults cannot process alcohol as effectively as younger adults, which leads to increased health complications as one ages. This includes increased risk of liver, kidney, and heart disease, constricted blood vessels and dementia (Williams, et al., 2005; Luggen, 2006; Bartels, et al., 2005; Brennan & Moos, 1996; Thomas & Rockwood, 2001; Barrick & Connors, 2002; Benshoff & Harrawood, 2003).

Other natural allies are those who informally help, listen to, and serve older adults in their daily lives including clergy, caregivers, neighbors, community leaders, and others with whom an older adult forms a bond. Even natural “helpers” such as hairdressers, grocery store clerks, and personal care attendants make appropriate allies in this issue as many older adults talk with and have naturally occurring bonds with such helpers. Educating all levels of “helpers” within a community represents another layer of assistance that can be provided to older adults. Such individuals have been assisting older adults through the implementation of the “gatekeeper” model in local communities. The central purpose of the gatekeeper model is to educate and help key community members understand an issue and how they can become part of a safety net of community members who are trained to recognize and respond to various issues that affect a community’s elder population. Such key community members may include: letter carriers, newspaper delivery people, and employees of utilities companies, among others. Many gatekeepers are people who come into contact with older adults in their day to day work and have the capacity to intervene and point an elder in the direction of help.

Findings on Needs, Resources, and Readiness

Substance Abuse Prevalence Data

According to the Behavioral Risk Factor Surveillance System, 9.6% of the people ages sixty-five and older in Hancock County, during the period 1996-1999, engaged in chronic heavy drinking (as defined by men consuming more than 2 drinks per day and women consuming more than one drink per day) compared to only 1.7% of adults age 65 and older in the state of Maine as a whole. Eleven percent of adults age 65 and older were categorized as binge drinkers, consuming more than five drinks on one occasion within the month, compared to 3.5% of the Maine population as whole. Twenty-four percent of the professionals surveyed by the Center on Aging reported seeing an older adult whom they believe to be abusing alcohol on a monthly basis. Twenty-one percent reported seeing older adult alcohol abusers on a weekly basis, and 7% reported such an observation to be a daily occurrence (see **Figure 6**).

Frequency of Contact with Older Adult Believed to be Abusing Alcohol as Reported by Professionals Surveyed

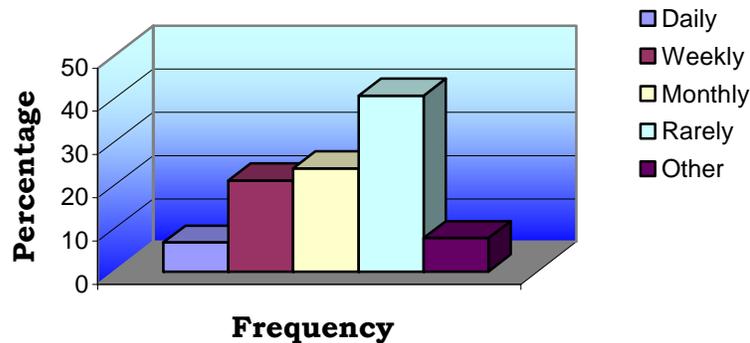


Figure 5: Frequency of Contact with an Older Adult Believed to be Abusing Alcohol as Reported by Professionals Surveyed

Twenty five percent of the professionals surveyed reported that they came into contact with an older adult whom they believed to be misusing prescription drugs. Twenty-two percent reported that they have contact with such individuals on a weekly basis, while 5% reported that they have such contact daily (see **Figure 7**).

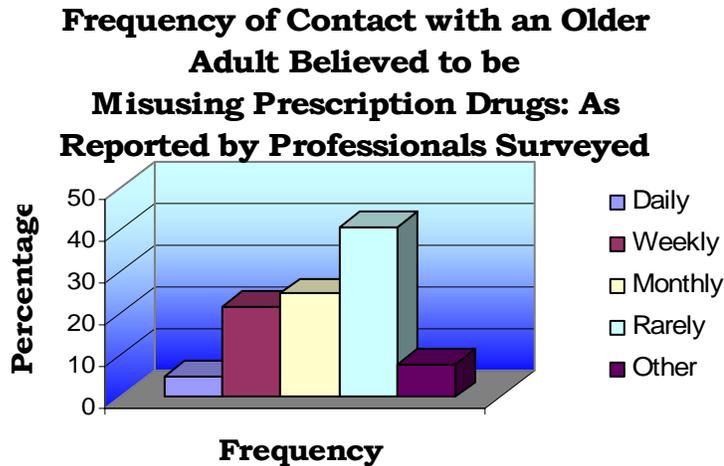


Figure 6: Frequency of Contact with an Older Adult Believed to be Misusing Prescription Drugs: As Reported by Professionals Surveyed

In addition, 19% of respondents reported that they encounter an older adult with alcohol-related diseases, such as alcoholic liver disease or cirrhosis, 11.7% on a weekly basis, and 6% on a daily basis (see **Figure 8**).

Frequency of Contact with an Older Adult Who Has an Alcohol-Related Disease Such as Liver Disease or Cirrhosis: As Reported by Professionals

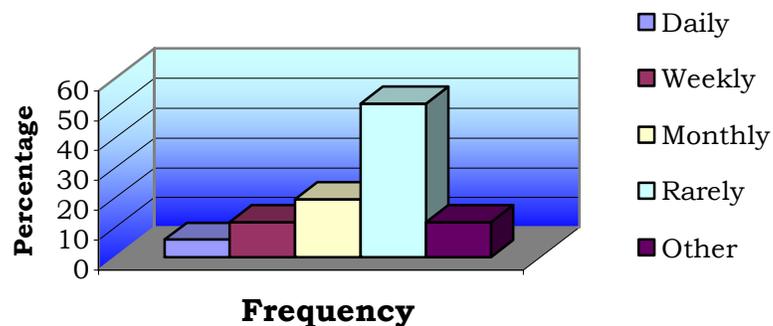


Figure 7: Frequency of Contact with an Older Adult Who Has an Alcohol-Related Disease Such as Liver Disease or Cirrhosis: As Reported by Professionals

Unique Patterns of Substance Abuse that Have Implications for Preventions

There are several unique patterns of substance abuse that have implications for prevention. Key informants, focus group participants and survey respondents noted that many older adults are unaware of the negative effects of mixing alcohol and prescription drugs, and will often do so when alone, inadvertently intensifying the effects of alcohol. Participants in all focus groups note that isolation and loneliness lead to increased alcohol intake and binge drinking amongst the older population.

The literature indicates that alcohol abuse among older adults is extremely under-diagnosed. One key informant noted that if older adults “are diagnosed with depression and/or anxiety, it may actually be addiction.” Menninger (2002) estimates the number of older adults abusing alcohol nationwide is around 17%. Due to decreased social obligations in which alcohol abuse would interfere with daily activities, and the misdiagnosis of alcohol abuse as natural signs of aging, Barrick and Connors (2002) argue that the number of older adults abusing alcohol is extremely under-diagnosed; a finding that is reiterated in this analysis.

“If they [older adults] are diagnosed with depression and/or anxiety, it may actually be addiction” (Key informant interviewee)

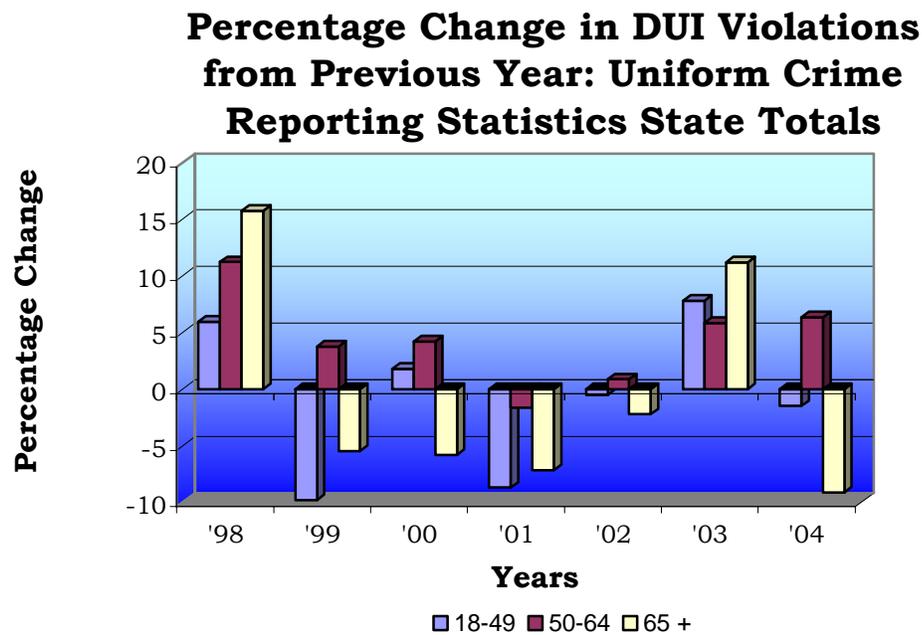


Figure 8: Percentage Change in DUI Violations from Previous Year: Uniform Crime Reporting Statistics State Totals

Across key informant interviews and focus groups with caregivers and professionals, it was noted that it is often more difficult to detect alcohol abuse in older adults because they do not have the same level of social and work obligations as younger people who abuse alcohol. As a result, they do not experience the negative social consequences, such as loss of job, or arrests for driving while intoxicated. **Figures 9 and 10** show the amount of Driving Under the Influence (DUI) violations for the State of Maine and Hancock County, respectively. As this data illustrates, older adults are interacting with law enforcement as a consequence of their drinking at a much smaller rate than other age groups. This observation is confirmed in findings in the literature (Brennan & Moos, 1996; Luggen, 2006; Moos, Schutte, Brennan, et al., 2005; Thomas & Rockwell, 2001).

Percentage Change in DUI Violations From Previous Year: Uniform Crime Reporting Statistics for Hancock County

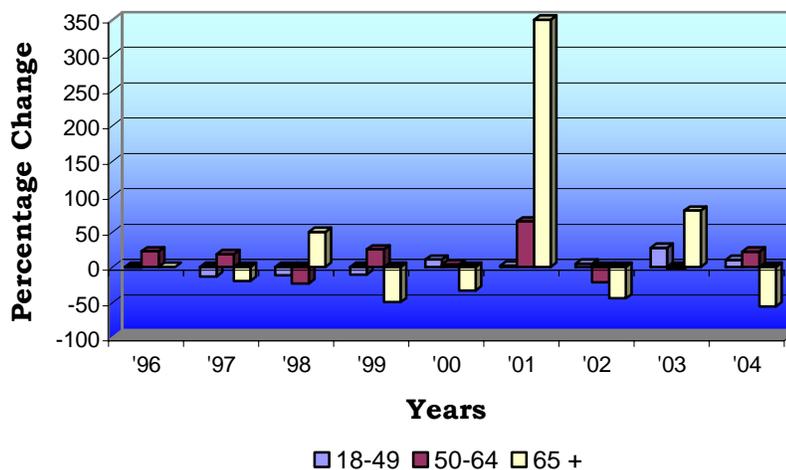


Figure 9: Percentage Change in DUI Violations From Previous Year: Uniform Crime Reporting Statistics for Hancock County

Cultural Issues that Contribute to Older Adult Substance Abuse

In one focus group of professionals, participants concurred that the attitudes of medical professionals may represent a barrier to older adults getting treated for substance abuse issues. This group maintained that often times alcohol abuse is referred to as a “family matter” and handled by the family as opposed to outside professionals. With this phenomenon in smaller communities, one participant noted that upon first realizing an elderly patient is abusing alcohol, many doctors may inadvertently act as enablers in some situations out of respect towards families wanting to handle matters on their own. In addition, professional focus group participants reported alcohol consumption is socially acceptable and many folks from the older

age cohort came of age during the peak of “cocktail hours”. **Figure 11** illustrates the percentage of Hancock area patients admitted for alcohol-related substance abuse treatment, as shown Hancock County was slightly higher than the remainder of the state among the 65+ cohort.

Hancock County Substance Abuse Treatment versus Remainder of State: Percentage of Clients with Any Reported Alcohol Abuse by Age Category

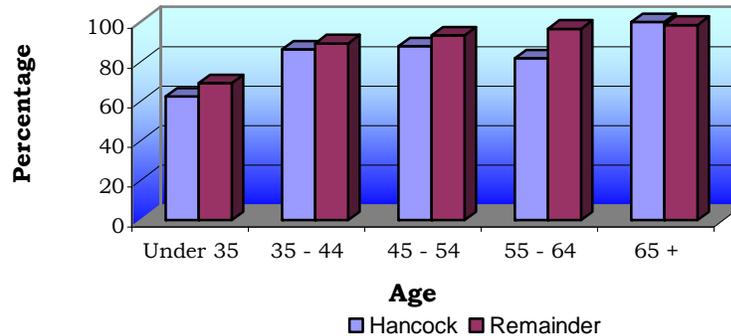


Figure 10: Hancock County Substance Abuse Treatment versus Remainder of State: Percentage of Clients with Any Reported Alcohol Abuse by Age Category

A great deal of discussion within the focus groups among professionals centered on socio-economic class distinctions in the community (e.g. extremely rich and extremely poor). The types of work and employment available in this region of Maine are also believed to contribute to alcohol abuse (i.e., the job categories of fishing, agricultural, and seasonal work associated with unemployment in the winter, and jobs serving the wealthy in the summer).

“Alcohol use in the older generations is a 'learned' behavior—for years that is what you did every evening. Happy hour—sit and relax with a few drinks. It is hard to change a behavior that has occurred for generations and many still find acceptable.” (Key informant interviewee)

According to the majority of older adults in the focus group, people over the age of 65 are most likely to drink in the wintertime and around the holidays. The most frequent reasons older adults give for excessive drinking are feelings of isolation and loneliness, followed by coping with aging and retirement, and dealing with the loss of a spouse. The most popular tools for screening for alcohol abuse were the CAGE (24.2%), and the Michigan Alcohol Screening Test (MAST) 26.5%. The remaining 58% cited different methods, mostly unstructured interviews. Many respondents felt these tests were effective in diagnosing alcohol abuse in older adults, a finding corroborated by Hinken (2001) (see **Figure 13**).

**Percentage of Professionals Surveyed
Routinely Screening for
Alcohol Abuse in Clients**

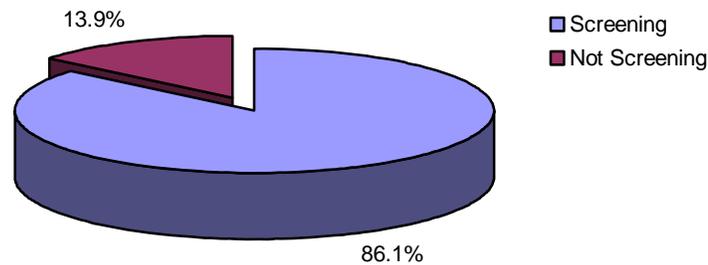


Figure 11: Percentage of Professionals Surveyed Routinely Screening for Alcohol Abuse in Clients

**Alcohol Abuse Screening Tool Used by
Professionals Surveyed**

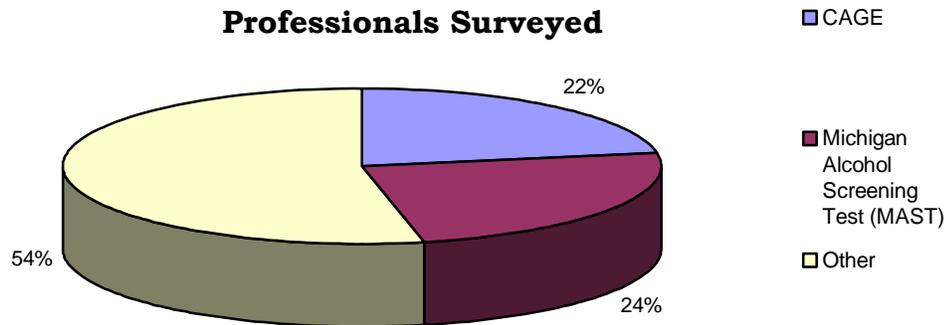


Figure 12: Alcohol Abuse Screening Tool Used by Professionals Surveyed

Our survey respondents who routinely screened for alcohol abuse, (86.1%) (see **Figure 12**), believe that alcoholism affects older men and women equally (68%), while 15% saw it as a problem that primarily affected men, and 2% believed it primarily affected women (see **Figure 14**).

Respondents in all focus groups indicated that the general availability of alcohol is a contributing factor to the problem of self-medication among elders struggling with physical, and/or mental health conditions, such as depression, pain, and stress. Our literature sources indicate that older men are more likely to engage in substance abuse than are older women (Brennan & Moos, 1996).

Which Gender is More Likely to Experience Alcohol Abuse? As Reported by Professionals Surveyed

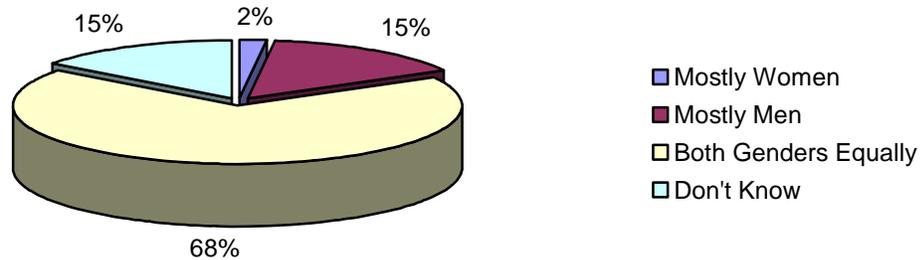


Figure 13: Which Gender is More Likely to Experience Alcohol Abuse? As Reported by Professionals Surveyed

Caregivers noted that older adults' problems with alcohol were not visible, especially in small rural towns that do not have bars or restaurants that serve alcohol. As a result, most drinking takes place at home. There was also discussion around the social stigma associated with alcohol problems that may contribute to isolation and seclusion. Some focus group participants voiced stereotypes and beliefs that further allow the community to ignore the issue for example, caregivers and key informants expressed the belief that retirees from other states may "bring their drinking problems with them." This belief allows community members to frame the problem as an "us versus them" issue. The normal aging process is also seen as a contributing factor for this age group to abuse alcohol; memory difficulties and increased sensitivity to substances could cause the effects of alcohol in older adults to be more severe than it would have been in their youth. Participants in the caregiver focus groups also note that doctors continue to perceive drinking as a private matter, and a right of their older patients, despite the consequences.

Risk Factors for Abusing Alcohol

- ❖ Loneliness and isolation
 - ❖ Boredom
- ❖ Family history of substance abuse
- ❖ Social culture of rural working class
 - ❖ Memory difficulties
- ❖ Accidental mixing with prescription medications
- ❖ Depression and/or cultural tradition around holidays
- ❖ Losses including health declines and death of a spouse or loved one

Analysis of Risk and Protective Factors that Influence Substance Abuse Patterns

Members of the focus groups note some health risks with mixing medications and alcohol, but emphasized that because alcohol abuse among older adults largely takes place in their own homes, elders are much less likely to run the risks of traffic accidents, arrests for misconduct, or driving while intoxicated which typically involve younger people with substance abuse issues. One study by Moos & Schutte et. al. (2005) found that some of the most salient risk factors for experiencing alcohol abuse in old age include a family history of alcohol abuse, and diminished emotional coping abilities.

Reasons Alcohol Abuse Goes Unnoticed

- ❖ Culture of privacy in the state of Maine
- ❖ Idea that older adults have a right to drink in excess (seen as an individual personal choice)
- ❖ Drinking takes place in seclusion
- ❖ Older adults have limited work-related or social consequences (loss of job, OUI, etc.)
- ❖ Doctors tend to overlook signs of substance abuse in older patients
- ❖ Older adults hide abuse from loved ones out of shame and denial

In addition, according to focus group and key informant participants, older adults tend to have more flexibility in their schedules and fewer obligations than do younger people, so they do not typically run a high risk of negative work-related and social consequences of substance abuse. Despite the perceptions of low risk, studies indicate that older adults who abuse alcohol have a higher risk of falls than those who do not (Mukamal, Mittleman, & Longstreth, 2004; Moos, Schutte, & Brennan 2005). Substance abuse has also been linked to a higher illness or morbidity rate for older adults (Thomas & Rockwood, 2001; Benschhoff & Harrawood, 2003). The chart below illustrates the local impact of this issue through the breakdown of inpatient cases with an alcohol-related diagnosis by age based on data obtained from Blue Hill Memorial Hospital (see **Figure 15**)

According to focus group participants, protective factors that help older adults avoid or decrease their chances of abusing alcohol include the support and involvement of family and friends as well as community engagement as one ages. Older residents who feel connected to those around them they are less likely to feel lonely or bored, often have other avenues for enjoyment and recreation, and tend to have more people looking out for their well-being. Such facts are predicted to make an older adult less likely to drink excessively. Key informant interviewees noted that involvement in the community included participation in local charities,

active membership within a religious organization, weekly rituals, such as going out with a group of people the same age for coffee, lunch, a movie, etc., regular time spent with grandchildren, and involvement in craft and exercise groups.

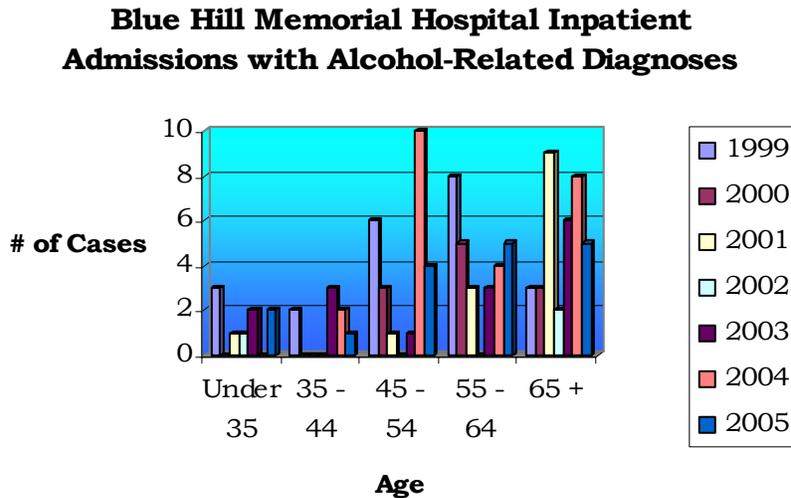


Figure 14: Blue Hill Memorial Hospital Inpatient Admissions with Alcohol-Related Diagnoses

Strengths of the Older Adults/Description of Resources Available

Resources available to older adults in Hancock County include local treatment programs and support groups, and organizations that specialize in substance abuse and prevention. According to the professional focus group participants, primary care physicians and Alcoholics Anonymous groups are cited most as places in the community where older adults can turn to for help with concerns about alcohol use/abuse. The Open Door recovery program in Ellsworth, MDI Hospital's Behavioral Health Center, Acadia Family Center, KidsPeace, and individual providers were also identified as treatment resources by focus group participants. Other formal services available within Hancock County serving adults include: Outpatient Chemical Dependency Agency and Washington County Psychotherapy Associates. Older adult focus group participants cited AA as the most readily available resource, but noted that more elder-specific support groups would be helpful. Several professional participants mentioned that clergy and churches were another resource for help.

Places to Go for Help
(Cited by Caregiver and Older Adult Focus Groups)

- ❖ Open Door recovery program
- ❖ MDI Hospital's Behavioral Health Center
 - ❖ Acadia Family Center
 - ❖ Individual counselors
 - ❖ Alcoholics Anonymous
 - ❖ Clergy/churches
- ❖ Medical facilities/Doctors

Others suggested professional counselors and family as additional sources for older adults to turn to for help. Professionals surveyed listed a variety of treatments available to treat substance abuse in Maine including: CBT/cognitive therapy/reality therapy, motivational interviewing (MI), harm reduction, the abstinence model, AA/12 step, family support, medication, counseling, inpatient/outpatient services, spiritual counseling, rational emotive therapy, and general support groups.

**Percentage of Professionals Surveyed
Who Feel Substance Abuse Treatment is
Effective with Older Clients They Serve**

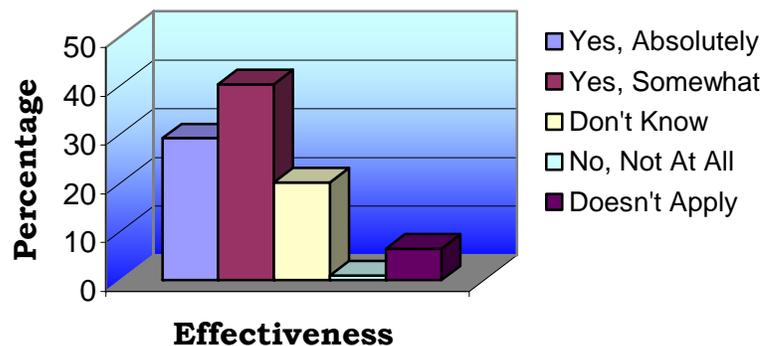


Figure 15: Percentage of Professionals Surveyed Who Feel Substance Abuse Treatment is Effective with Older Clients They Serve

Out of the 199 responses to this question in the state-wide survey, 144 (69.4%) find these treatments to be effective for older clients. Only 2 respondents (1%) find these treatments to be completely ineffective for their older clients, while the remainder of respondents were unsure (see **Figure 16**).

**Treatments Available for Substance Abuse
(69.4% of professionals cited these as effective for older adults)**

- ❖ Motivational interviewing
 - ❖ Harm reduction
 - ❖ Abstinence model
 - ❖ 12-step programs
 - ❖ Family support
- ❖ Cognitive behavioral therapy
 - ❖ Medication
 - ❖ Counseling
- ❖ Inpatient/outpatient services
 - ❖ Spiritual counseling
- ❖ Rational emotive therapy
- ❖ General support groups

One key informant explains that there are social service professionals and substance abuse providers in the state who are working together informally with other professionals and stakeholders interested in this issue. Another key informant indicated that as a substance abuse counselor he worked with his wife—a nurse at a nursing home—to educate the staff on the signs of alcohol abuse among the residents, as well as how to handle such issues. However, he noted barriers in this approach as older adults often do not view substance abuse counselors or nurses as authorities on their health, and they tend to disregard these interventions.

“I’m a substance abuse counselor, but if I seek seniors out, ten out of every thirty wouldn’t even let me finish my pitch to them. If a medical professional takes the time to educate seniors, they’ll listen – from their generations, doctors are the authorities and they have the final word.”
(Key informant interviewee)

Analysis of Barriers

The lack of financial resources, transportation, and community awareness, combined with prevailing myths and attitudes regarding this problem, result in barriers to substance abuse prevention and treatment among older adults in Hancock County, and throughout the state. Of the counselors and social workers surveyed across the state of Maine, 120 (54.8%) accepted Medicare payment for services. Within the open-ended responses, eleven service providers voiced concern over the fact that many providers throughout the state do not accept Medicare,

and the corresponding fact that covering the cost of substance abuse treatment is a prohibitive, out-of-pocket expense for many older adults.

Survey respondents indicated an overall lack of awareness and involvement of the state of Maine in the problem of elder substance abuse, and that currently, few services are offered to older adults who are poor.

In the older adults' focus groups, participants voiced a need for support groups and services geared primarily toward older adults. In addition, survey respondents reported that the current services offered to older adults are "poor", with a mean rate of 1.96 on a scale of 1 (serves their needs very poorly) to 5 (serves their needs very well). Within the open-ended portion of the survey, 14 service providers voiced concern over the lack of services and facilities available to older adults throughout the state.

Respondents indicated a lack of awareness of and involvement in the problem of elder substance abuse within Hancock County and the state of Maine. On a scale of 1 (not involved) to 5 (very involved), the mean response was 2.05, indicating that the majority of respondents felt that the leaders within their community were relatively uninvolved in the prevention of substance abuse in older adults. In addition, respondents reported a mean of 1 on a scale of 1 (very difficult to find) to 5 (very easy to find) information on older adult alcohol abuse in their communities. As a key informant noted, "Well, if people do not identify older adult alcohol abuse as a problem then it will not be addressed as such."

Well, if people do not identify older adult alcohol abuse as a problem then it will not be addressed as such." (Key informant interviewee)

Focus group, interview, and survey data suggest that healthcare and social service providers often enforce or perpetuate stereotypes and negative beliefs about alcohol abuse such as: it is "too late" for older adults to change, seeing drinking as the "only thing a senior has left" in the end of their lives. Focus group participants further disclosed that some doctors do not encourage patients to change their behaviors in later life. Fifteen service providers included in their open-ended responses that they would expect older adults to feel that their abuse of alcohol was not a problem, but a person's right, though this theme did not surface in any of the older adult focus groups. Fifteen service providers surveyed indicated that the stigma and shame that comes from abusing alcohol also stops older adults from seeking help with excessive drinking behavior. This theme was also expressed in the service provider focus groups and in the key informant interviews. Two key informants explained that older adults were not raised in an era where alcoholism was considered a disease, and therefore see it as a personal moral shortcoming to keep hidden.

Assessment of Readiness Stage of Hancock County and the State of Maine

The Center on Aging used the Community Readiness Model as a tool to assess where Hancock County and the State of Maine are in addressing the problem of older adult alcohol abuse. This model encourages the coming together of community members to effectively address issues that impact the community as a whole. Readiness, as defined by this model, is the degree to which a community is prepared to take action on an issue and it is a concept that encompasses the following dimensions: community efforts, community knowledge of efforts, leadership, community climate, community knowledge about the issue, and resources available to address an issue (Plested, Edwards, & Jumper-Thurman, 2004). For the purposes of this study, Hancock County and Maine were considered two communities of interest. The model is designed to enable communities to identify and define issues and strategies within their own contexts, and to cooperate with their community officials to increase “community capacity for prevention and intervention” and works to “encourage and enhance community investment in an issue,” in an effort to “guide the complex process of community change” (Plested, Edwards, & Jumper-Thurman, 2004, p. 3).

The State of Maine is in a state of “*vague awareness*” regarding the problem of substance abuse among elders based on the Community Readiness Model framework.

The model defines the term readiness as the degree to which a community is prepared to take action on an issue; the issue has to be defined, “measurable across multiple dimensions” and “across different segments of the community”, and includes “essential knowledge for the development of strategies and interventions” (Plested, et al., 2004, p. 3). The Center developed a modified version of this instrument to assess the readiness of Hancock County and the State of Maine in addressing older adult substance abuse based on the survey, focus groups, and key informant interviews.

According to the Community Readiness Model, Hancock County is currently in stage three, a state of “vague awareness” of the problem of older adult substance abuse. Vague awareness is characterized by a feeling among residents “that there is a local problem, but there is no immediate motivation to do anything about it” (Plested, et al., 2004, p. 9).

Most [respondents] feel that there is a local problem, but there is no immediate motivation to do anything about it.

Currently, there is some awareness among community members that a problem exists, and there are many ideas provided on how best to move forward, as displayed in focus group

discussions, and open-ended survey responses, and key informant interviews. However, there is little evidence of community attention to this issue, and the local leadership is not yet engaged in this issue. The state of Maine is also currently in stage three, a state of “vague awareness”. As stated above, professionals surveyed report that local leaders are not engaged in the prevention and/or treatment of older adults who abuse substances. Currently many alcohol prevention resources are geared toward teens. In addition, many of the professionals surveyed, reported little concern about alcohol abuse among older adults.

Recommendations

Despite the low-level of awareness and attention given to older adult substance abuse, there is an opportunity to engage in prevention work. Drug arrest statistics suggest an opportunity to target the 50 and older cohort. According to Uniform Crime Statistics collected in the State of Maine, drug and alcohol-related arrests among adults 50 years and older are increasing at a rate greater than that of other cohorts (see chart).

Percentage Change in Substance Abuse Violations from Previous Year: Uniform Crime Reporting Statistics State Totals

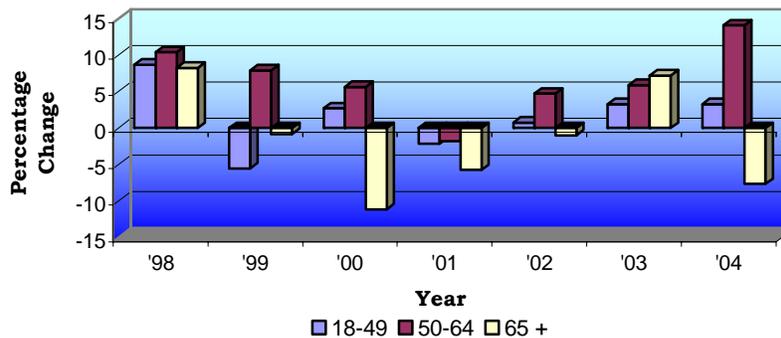


Figure 16: Percentage Change in Substance Abuse Violations from Previous Year: Uniform Crime Reporting Statistics State Totals

The oldest among the generation known as “baby-boomers”, which is also recognized as the first generation to have used drugs and alcohol recreationally since adolescence, are now beginning to age into retirement. Given this phenomenon, there is currently a valuable opportunity for prevention work with the baby-boomer population. It is predicted that this generation may transform and challenge traditional substance abuse treatment and prevention systems currently in place. Our secondary data analysis has revealed a developing trend in increasing substance abuse related arrest among this cohort. In some instances, the change in substance abuse related arrests has been increasing at rates higher than teens and young adults (see **Figures 17-18**).

While arrests, hospitalizations, and substance abuse treatment are currently low for individuals 65 and older (see **Figure 19**), an opportunity must be recognized for improved intervention initiatives, based on the expected aging of the current age 50-64 subpopulation into the target cohort, the rates of incidence are expected to rise (see **Figure 18**).

Percentage Change in Arrests for Drunkenness from Previous Year: Uniform Crime Reporting Statistics State Totals

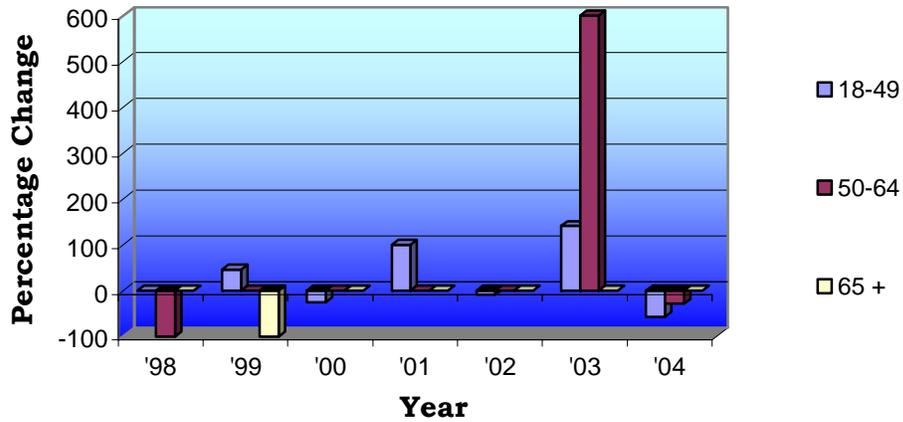


Figure 17: Percentage Change in Arrests for Drunkenness from Previous Year: Uniform Crime Reporting Statistics State Totals

Percentage Change in DUI Violations for Adults 65+ from Previous Year: Uniform Crime Reporting Statistics Hancock County Totals

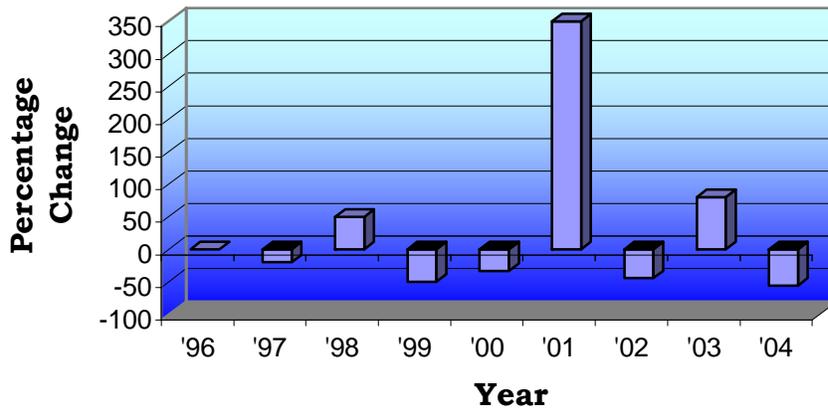


Figure 18: Percentage Change in DUI Violations for Adults 65+ from Previous Year: Uniform Crime Reporting Statistics Hancock County Totals

Community Response

In order to prevent substance abuse among this group, it is recommended that communities utilize natural helping networks to support identifying, addressing and preventing substance abuse. Meals on Wheels volunteers, senior companions, and religious communities are already engaged with the elderly population, and through these relationships can recognize the signs of substance abuse and offer informal support, information, and transportation to services that can help prevent and treat the problem. Community members and service providers can also work together to create innovative treatment and prevention options for older adults that are sensitive to their unique needs.

Programs Already Engaged with Older Adults Which Could Address the Problem of Substance Abuse

- ❖ Meals on wheels programs
- ❖ Congregate housing sites
- ❖ Senior companion programs
- ❖ Religious communities
- ❖ Senior service providers/Caretakers

Substance abuse prevention and treatment programs can be integrated into programs and activities in which older adults already participate, such as home-based treatments combined with existing services like nutrition and housing assistance programs. Programs could also be church-based or linked with medical care, [i.e., hospital-based programs or primary care practitioner (PCP) offices]. According to our data, the most effective treatment is a holistic approach and depression and alcoholism are often co-occurring issues. Drug counselors who are themselves under the age of 30, and who frequently work with teens and young adults must also recognize the global impact of growing old with substance abuse.

In the early stages of alcohol abuse, intervention programs that take a “broad and holistic approach to treatment, keeping the treatment program flexible and adapting treatment as needed” in response to clients’ individual characteristics can help individuals develop coping mechanisms for life changes associated with aging (Bartels, et al., 2005 p. 13). Programs in which the elderly are already immersed are often the best resources with which to develop programs that target this specific age group.

Lifestyles that promote drinking and risk factors, such as isolation and loneliness, which contribute to alcohol abuse by older adults, need to be addressed by providers and community members. Congregate housing communities also represent an important opportunity for intervention with older adults. While such settings provide a natural community for reducing isolation among older adults, there is also the opportunity for problem drinking to become a community norm. An example was given by a key informant that it is not unusual to see a “happy hour” group gathering within congregate and shared housing complexes. Educating and

working with this population can be seen a critical step in addressing community norms and beliefs that condone heavy drinking.

“The most effective treatment is a holistic approach; depression, alcoholism, they go together. We need to address the lifestyle that promotes drinking – namely the isolation and loneliness that seniors face.”
(Key informant interviewee)

In addition, local initiatives such as senior resource councils, discussion groups, seniors’ exercise classes and the like, can empower older adults, and provide opportunities for community involvement. This will minimize the loneliness, isolation, boredom and perceived loss of purpose that participants across focus groups and survey respondents noted can cause older adults to increase their alcohol intake. Bartels, et al. (2005) argue that psychosocial support is a key factor in the prevention and treatment of older adult substance abuse.

Need For Education

Education is an extremely important component to addressing issues of substance abuse in persons 65 and older. Professionals and local leaders will benefit from education on the issue of older adult substance abuse. Of those surveyed, 92% have formal addiction training, but only 55% reported receiving any formal education on the needs of the geriatric population. One key informant noted that “DHS people are not trained, in general, to deal with addiction in elderly clients. They are judgmental. Abstinence cannot always be demanded.” The three topics professionals want to know the most about according to our survey are the local resources available (72%), treatment options (62%), and impact on family members (37%).

According to survey results, professionals prefer to receive information regarding treatment options predominantly via organizations that offer expertise in the issue (70%), the Internet (68.5%), and their colleagues (57.5%). Local libraries (11.9%) and television (5%) were also cited as avenues professionals turn to when attempting to access more information regarding substance abuse. Professionals find websites (65.3%) and research articles (62%) to be most helpful to them in their professional work, although according to our literature review, there appears to be a gap in the counseling literature regarding older adults and substance abuse (see **Figure 20**) (Williams, Ballard & Alessi, 2005).

What do Professionals Want to Know About Older Adult Substance Abuse? (As Reported by Professionals Surveyed)

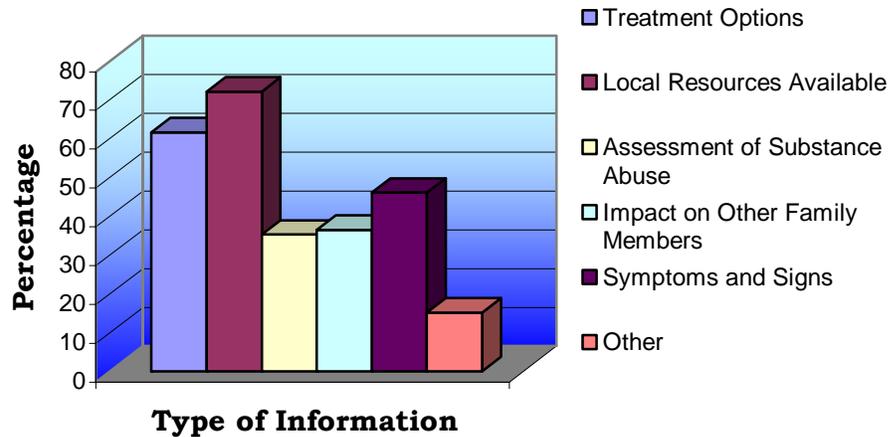


Figure 19: What do Professionals Want to Know About Older Adult Substance Abuse? (As Reported by Professionals Surveyed)

We recommend more studies be dedicated to this phenomenon and the findings published both in professional journals, and via the internet. Other avenues that professionals cited as most appealing for learning more about substance abuse issues include: books (48%), pamphlets (44.3%), newspaper articles (26%), on-line tutorials or courses (23.3%), video/DVDs (16.4%), CD-ROMs (10.5%), and PowerPoint presentations (10%). (See **Figure 21**)

Role of Physicians and Healthcare Providers

Throughout our focus groups, open-ended survey responses, and key informant interviews, physicians and healthcare providers are cited as the primary people with whom older adults interact, and the individuals from whom they would most likely take advice. One key informant explained that as a drug counselor, he usually was unable to persuade older adults with whom he came into contact within his community that excessive drinking was not good for their health. Yet, the same words from doctors was accepted and acted upon.

However, healthcare professionals in our focus groups report having little training in this subject, or reluctance to address this issue. Formal training for healthcare providers on how to address substance abuse as a health issue, not a moral judgment, could enable many older adults to receive the information positively, and offer the encouragement they need to change their damaging behavior around drugs and alcohol consumption. Bartels, et al. (2005) found that if primary health care providers offer brief intervention and counseling sessions of 10-15 minutes in length with

follow-up appointments, they can help increase efficacy in their patients in a way that is cost-effective for the healthcare system. In cases of late-onset alcoholism, health counseling from medical professionals may be the only necessary intervention (Bartels, et al., 2005).

Form of Information Most Helpful in Professional Work as Reported by Professionals Surveyed

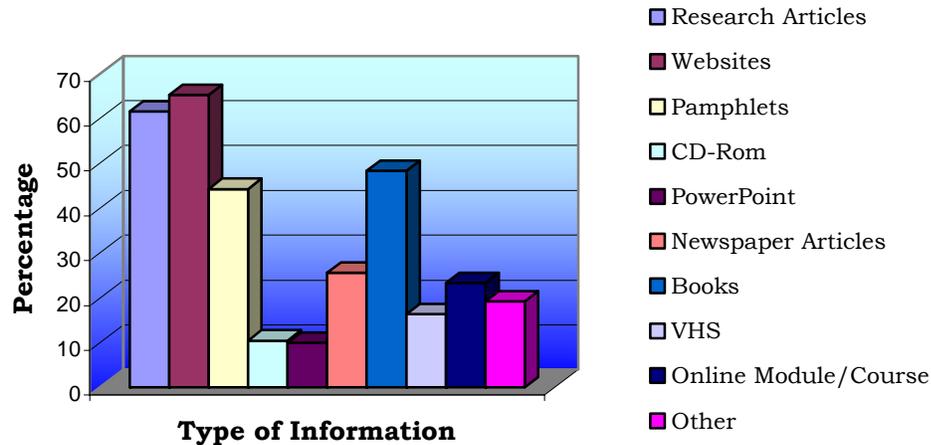


Figure 20: Form of Information Most Helpful in Professional Work as Reported by Professionals Surveyed

Before intervention can occur, physicians must be aware of the problem. Because of the stigma surrounding older adult alcohol abuse, it is recommended that physicians screen for alcoholism in elderly patients, since some elders may feel uncomfortable self-reporting their symptoms (Luggen, 2006; Thomas & Rockwood, 2001; Blow, Olsin, & Barry 2002). Individuals in later life may not engage in the same roles and activities of early adulthood or middle age (e.g., jobs, parenting, social obligations). This, combined with the greater likelihood of exhaustion, chronic sickness, senility and frailty in later life, creates conditions in which it is easier to hide the symptoms of addiction from friends and family (Williams, et al., 2005). Often a medical professional has the best access to information that would indicate adult-onset substance abuse.

[Social service providers] “are not trained, in general, to deal with addiction [in older adults]. They are judgmental; abstinence cannot always be demanded.”
(Key informant interviewee)

A patients’ medical history and a review of symptoms can also reveal findings that suggest alcohol dependence (Luggen, 2006; Williams, et al., 2005; Thomas & Rockwood, 2001). Physicians may attribute classic symptoms of alcohol abuse, such as gait disturbances, memory loss, swelled abdomen, blood-shot eyes, flushed cheeks, and gastrointestinal and liver problems

to old age, and subsequently prescribe medications that potentially could result in heightened health problems when combined with alcohol (Luggen, 2006; Williams, et al., 2005; Thomas & Rockwood, 2001). Barrick and Connors (2002) argue that one of the central reasons that alcohol abuse in older adults is under-diagnosed is the misdiagnosis of the symptoms of alcoholism as signs of natural aging.

In order to distribute information regarding older adult substance abuse to a wide range of professionals, we recommend the development of an electronic clearinghouse of materials including websites, research articles, resource directories, and best practice treatment information.

In our focus groups, caregivers mentioned that doctors often feel that it is too late for older adults to change, seeing drinking as often the only thing left toward the end of their lives, and therefore do not encourage patients to change their behaviors.

In addition, exploring models of integrated healthcare that streamline referral from healthcare providers to substance abuse treatment providers will help to reduce the stigma commonly associated with seeking help for alcohol abuse treatment. In order to raise awareness and educate among the community-at-large on the prevalence of elder alcohol abuse, we recommend the creation of campaigns focused on “breaking the silence”, and healthy drinking modeled after currently successful campaigns for other health topics (smoking cessation, osteoporosis prevention, heart disease, etc.).

Caregivers' Response

Family caregivers and other informal supports can and should play a key role given the significance they play in the lives of older adults. Educating caregivers regarding older adult substance abuse could potentially provide older adults with support and intervention at the early stages of abuse.

Information passed on to caregivers should include, but not be limited to, how to recognize the signs and symptoms of substance abuse, strategies for approaching the topic, and where to find help. Through caregivers, older adults can be reminded that they are not alone, and that many others struggle with the same problems. This support and encouragement could motivate older adults to take steps to change their behavior toward drugs and alcohol.

In order to not draw attention to what older adults and caregivers may view as a private matter, it is important to create extremely sensitive educational materials regarding older adult

substance abuse, and to make them available in locations that are both accessible and which offer anonymity. Based on the fact that the majority of substance abuse service providers in Maine do not accept Medicare payment, it is vital that alternative models of reimbursement for substance abuse services be investigated. Successful innovations that are currently utilized in other states should be replicated in the state of Maine to reduce the financial barriers to services that currently exist for older adults. In addition to providing a means of paying for existing services, it is also important to recognize the unique needs of older adults when developing models of treatment and prevention at the same time that their integration in community life is maximized. According to prior studies, adults over the age of fifty could make up as much as a third of the calls to Alcoholics Anonymous but the atmosphere at such meetings is not always conducive to older adult participation (Luggen, 2006).

Suggested Topics for Caregiver Education

- ❖ How to recognize the signs/symptoms of abuse
 - ❖ Strategies for approaching the topic
 - ❖ Where to find help

Evidence Based Models

Models that incorporate family members and same-age group support to deal with the challenges associated with aging have proven to be effective in curbing older adults' intake of alcohol (Atkinson, 1999; Benschhoff & Harrawood, 2003; Dupree & Schonfeld, 1998; Moos, et al., 2005). Individualized outpatient treatment and counseling have also proven to be effective for older adults struggling with substance abuse issues. In addition, for older adults who are uncomfortable with attending structured substance abuse programs, brief interventions and follow-up appointments with a primary care physician that focus on the physical effects of alcohol abuse can prove effective at managing alcohol consumption (Bartels, et al., 2005). Medications can also aid older adults in overcoming alcohol and substance abuse: Naltrexone and Camprosate are the most popular prescriptions for older adults because they have minimal side effects, but can cause damages if not taken correctly, and should therefore be prescribed with caution (Barrick & Connors, 2002). In short, approaches should be multifaceted and geared to meet the unique needs of older adults.

In order to equip community members, professionals, caregivers, older adults and their families to better address this complex issue, we recommend that future research seek to better determine the impact that current baby boomers will have on the alcohol and substance abuse treatment systems. According to a key informant "We need to create programs that offer

consistency and a track record of proven measurable success. Too many programs out there are inconsistent or temporary in nature.”

“We need to create programs that offer consistency and a track record of proven measurable success. Too many programs out there are inconsistent or temporary in nature.” (Key informant interviewee)

In addition, it is important to evaluate current and proposed interventions with older adults, and establish data tracking methods that can illustrate the impact of such interventions. Once revealed, we must continue to take steps to better understand and respond to substance abuse in older adults.

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Appendix A: Literature Review

Currently, in the U.S., the majority of research and programs dedicated to alcohol abuse prevalence, prevention, and rehabilitation are geared primarily toward adolescent to middle aged populations (Benshoff & Harrawood, 2003). These findings often do not apply to the unique needs of the elderly with substance abuse issues. Research focused on older adults indicates that the occurrence of alcohol abuse in this age group is underestimated, and there is a lack of services dedicated to the unique needs of this population (Bartels, Blow & Van Critters, 2005; Atkinson, 1999; Liberto & Olsin, Moos, Brennan, & Schutte, 2005; Williams, Ballard & Alessi, 2005; Wray, Alwin, & McGammon, 2005). The severity of health complications related to substance abuse intensify with age, and as the current *Baby Boom* population approaches retirement, the number of older people with substance abuse issues is projected to increase (Klueger & Resner, 2006; Barrick & Connors 2002; Bartels, et al., 2005). It is vital that health professionals, substance abuse experts, and community members understand and respond to the unique issues of substance abuse among elders.

Prevalence of the Problem

In Maine

The 2000 Census reports that 14.4% of Maine's population is composed of persons age 65 or older (183,402); by 2025 this number is expected to grow to an estimated 327,000 persons, a growth rate of 72%. (Donahue, 2005). Recent census figures reveal that the median age in the state is now 40.6 years, making Maine's population the oldest state in the nation (Churchill, 2005). The Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) Rural Health Research Center (RHRC) of the University of Washington School of Medicine recently estimated the prevalence of, and trends in, alcohol use among U.S. adults in rural areas using data gathered via the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), in the years 1995/1997 and 1999/2001. BRFSS collects data annually on health-related behaviors via state-based, random-digit-dialed telephone surveys of private residences of the non-institutionalized U.S. adult population aged 18 years and older. Results indicate that heavy and binge drinking increased for rural counties. Maine is one of four states in the nation found to have significant increases in heavy and binge drinking. Maine is also identified as the state with the highest absolute increase in rural binge drinking prevalence (2.50 to 7.20%), and heavy drinking prevalence (2.00 to 3.99%) from 1995/1997 to 1999/2001 (Jackson, Doescher, & Hart, 2005). It is worth noting in rural and urban U.S. counties there is a direct relationship between the prevalence of both moderate and heavy drinking as income and education levels increase (Jackson, et al., 2005).

Further exacerbating the issue is the lack of appropriate treatment options for older adults throughout Maine. The “Mental Health Services for the Elderly” report issued by the Maine Joint Advisory Committee on Selected Services for Older Persons in January 2000, emphasized that accurate and current information about mental health services for older individuals is either difficult to obtain, or not available; there is a service gap in home-based mental health and substance abuse services; there are no substance abuse programs specifically funded for elders, and Medicare funding of substance abuse services is even more limited than for mental health services. The findings of this report have been confirmed by professionals, caregivers and older adults themselves who have reported a paucity of treatment providers and programs in Maine.

In Hancock County

According to the health planning report for the Hancock region, the elderly population continues to increase in the Hancock County region of the state of Maine (PHRG, 2002). Within the Hancock region of Maine, “the elderly are nearly five times more likely than their counterparts in nearby counties, or statewide, to report chronic heavy drinking in the past month, and twice as likely to report past month binge drinking” (PHRG, 2002, p. 21).

The problem in Maine mirrors national trends. Five percent (100,000) of all premature deaths in a given year are related to alcohol use (PHRG, 2002). Luggen (2006) reports that alcohol abuse is the third most common psychiatric disorder among older adults; two percent of men and one percent of women older than 65 may be dependent on or abusing alcohol. Menninger (2002) estimates this number to be closer to sixteen percent. Due to decreased social obligations in which alcohol abuse would interfere with daily activities, and the misdiagnosis of alcohol abuse as natural signs of aging, Barrick and Connors (2002) argue that the number of older adults abusing alcohol is extremely under-diagnosed, and the actual percentage of elders who abuse alcohol is potentially much higher than one or two percent. Within Hancock County, hospitalizations due to substance abuse among the elderly are elevated in relation to peer county rates (PHRG, 2002, p. 22). It can be difficult to monitor abuse in this age group because the current elderly generation grew up in a time when drug use was frowned upon by mainstream society, and therefore they are more likely than younger people to hide their addiction. In addition, alcohol was more tightly regulated for this generation, and was viewed as a moral problem, not a disease, which should be kept hidden.

Research literature suggests that lack of awareness of the impact of combining substances increases the severity of alcohol abuse. Many older adults and their caregivers report misinformation, or lack of information, provided to them about their prescription medications, and many encounter little information on the effects of mixing alcohol with drugs. However, “the estimated annual expenditure on prescription drugs by the elderly is \$15 billion, a fourfold greater per capita expenditure on medications compared to younger individuals, making the elderly the largest consumers of legal drugs in the United States” (Messinger, 2002, p. 179). Blow, Olsin and Barry (2002) explain that there is an increase in older adults’ misuse of

prescription and nonprescription medications, though such misuse is not considered a disorder in the DSM-IV. According to the National Institute of Drug Abuse (2006), results of a recent study that tested the diagnostic capabilities of the Drug Abuse Problem Assessment for Primary Care (DAPA-PC) showed that older adults and younger adults had similar rates of alcohol and drug abuse. The study, which involved 266 adults aged 18–54 and 61 adults aged 55–86, also showed older adults were less likely than younger adults to view their drug use as problematic (NIDC). The current rate of substance abuse among the elderly is projected to increase in the near future (Kluger & Ressler, 2006).

Kluger and Ressler (2006) report the approximately 75 million baby boomers who were teenagers in the 1960s and 1970s are the first generation who experienced with a combination of alcohol and drugs in their youth are now approaching sixty with prolonged drug and alcohol addictions. As this group reaches retirement, the currently underestimated number of elders presently abusing substances will steadily increase. Bartels, et al.(2005) predict that the aging of this generation will also cause the number of individuals with psychiatric disorders, including substance abuse disorders to exceed that of mental illness in younger age groups, (18 to 29, 30 to 44 or 45-65) within the coming decades (p .2). Individuals with alcohol related illness costs an estimated 100 billion dollars a year (Bartels, et al., 2005). Elders often rely on government subsidized programs such as Medicare, and health problems related to substance abuse in the elderly population potentially become more severe and costly to treat later in life (Bartels, et al., 2005). Taking this into consideration, it is financially beneficial for the nation as a whole to invest in preventative measures, effective screening, and intervention of elder substance abuse (Bartels, et al., 2005).

Physical Effects of Substance Abuse in the Elderly Population

A lifetime of “recreational chemistry” often leads to a “neglect in overall health” which results in untreated “diabetes, hypertension, and liver damage” (Kluger & Ressler, 2006). The use of cocaine, which only became popular in the early 1980s, is dangerously addictive, and can sometimes result in quick and acute physical consequences such as a fatal heart attack. The consequences can also come “slowly and chronically” through elevated blood pressure and “spasms of blood vessels” (Kluger & Ressler, 2006). Addicts who reach retirement most likely know how to control their substance abuse so that they can function in mainstream society, but are still suffering from medical consequences that can result in premature death. Like other addictive narcotics, alcohol dependence has a neurological basis; at the cellular level, alcohol binds to hydrophobic pockets of proteins (Luggen, 2006). Alcohol stimulates dopamine receptors, which are part of the brain’s “reward” pathway, and can temporarily relieve emotional distress, which can compel individuals to use alcohol as a coping mechanism in times of stress, fear and/or grief. Life-long alcohol abuse can lead to diabetes; heart and liver damage; and hypertension. In addition to the life-long cumulative effects of alcohol on one’s physical health, older adults tend to be more susceptible to the potential damage of alcohol abuse than are younger people.

Alcohol is a water-soluble drug which causes more severe effects in older people (Williams, et al., 2005; Luggen, 2006; Bartels, et al., 2005; Brennan & Moos, 1996; Thomas & Rockwood, 2001; Barrick & Connors, 2002; Benshoff & Harrawood, 2003). Reduced body mass, slower metabolism, and less efficient kidney and liver functions mean that a given quantity of the drug has a more intense effect and stays in the body longer. Alcohol also impairs vision, smell, and vitamin absorption, which are functions that tend to already be less efficient in the elderly (Luggen, 2006). If adults do not decrease the amount of alcohol in their systems as they age, they could risk cognitive impairments such as memory deficits and poor motor functioning; compromised immune and digestive systems; heart damage; and sexuality issues, such as early menopause and chronic impotence; and sleep difficulties (Williams, et al., 2005).

Moderate alcohol intake may be beneficial to the health of an older adult. Though alcohol is perceived as a means to improve self-esteem and promote relaxation, many older adults abstain from alcohol because of a family history of addiction or abuse. Healthcare providers need to be aware that older adults with a family or personal history of addiction and abuse should not be encouraged to drink for health benefits later in life (Blow, et al., 2002). Alcohol use is not necessarily harmful if it is not contraindicated by prescribed medications, but “there is no evidence of a therapeutic effect of alcohol for heart disease or any other condition in people who previously did not drink” so there is not a reason to recommend that previous abstainers drink in their later years (Blow, et al., 2002).

Mukamal, Kuller, Fitzpatrick, et al. (2003) found that moderate alcohol consumption, one to six drinks a week could lessen the chances for Alzheimer’s disease in the elderly population compared to complete abstinence. Beyond six drinks, characterized as “heavy drinking,” increases the odds of dementia (Mukamel, et al., 2003). In a study of 2,873 older people diagnosed with dementia, Thomas and Rockwood (2001) found those who self-reported definite or questionable alcohol abuse had a higher occurrence of dementia, except in cases of probable Alzheimer’s disease. In addition, those with definite or questionable alcohol abuse “conferred a 56% additional risk of short-term mortality after adjusting for age, sex, and a diagnosis of dementia” (Thomas & Rochwood, 2001, p. 415). Men were more likely to abuse alcohol and also exhibited a higher correlation with dementia and alcohol abuse than did women.

Goldstein, Hermann, and Shulman (2006) found a correlation between alcohol abuse and bipolar disorder in a survey of adults over the age of 65 (84 diagnosed with bipolar disorder and 8,121 without bipolar disorder). The men with bipolar disorder who participated in the study reported a greater prevalence of alcoholism, while women reported a greater prevalence of panic disorder. Goldstein, et al. (2006) recommend that health care professionals monitor the intake of alcohol in elderly patients with a history of bipolarity. Among people 65 and older, moderate and heavy drinkers are sixteen times more likely than nondrinkers to die of suicide (Grabbe & Demi, 1997; Menninger, 2002).

Mukamal, Mittleman, Longstreth, et al. (2004) conducted a study of the relationship between alcohol consumption and the number of falls in 5,841 older adults enrolled in a cardiovascular health study. They concluded that 14 or more drinks a week led to a significantly higher risk of falls. The authors note that heavy drinkers and/or people prone to falls may be less likely to participate in a study of this nature, so that the correlation between alcohol consumption and falls is potentially even higher than this study indicates. The relationship between accidents and alcohol abuse is prevalent across studies (Mukamel, et al., 1994; Barrick & Connors, 2002; Benschhoff & Harrawood, 2003; Brennan & Moos, 1996; Liberto, et al., 1992; Moos, Brennan & Schutte, et al., 2005; Moos, Schutte, & Moos, 2005; Thomas & Rockwood, 2001).

Due to the potential for physiological damage and accidents when under the influence of alcohol, the National Health Association recommends that elderly people do not consume more than one drink (i.e. one bottle of beer, one glass of wine, one shot of spirits) per day to avoid premature immobility and death (Luggen, 2006). While research indicates that many elders exceed this prescribed limit to a detriment, the problem remains relatively hidden, and there is limited attention dedicated to the prevention, diagnosis, and treatment of alcohol abuse among elders. This issue is further complicated by mixed messages from the healthcare community and research that indicates that drinking can have a healthy impact (Bartels, et al., 2005).

Characteristics of Alcohol Abuse Among the Elderly

In order to assess whether or not an elders' drinking is having a negative impact on his or her daily life, and is therefore socially problematic, Brennan and Moos (1996) surveyed 1184 participants between the ages of 55 and 65 during a four-year period. Based on these responses, Brennan and Moos constructed a model to explain late-life drinking behavior. They defined drinking as "problematic" if the participants surveyed reported negative consequences resulting from their drinking throughout the duration of the study. Male and female problem drinkers averaged 5.5 and 4.2 drinking related problems, respectively. Correlations between personal characteristics, life stressors, social resources, and drinking history, as well as coping responses of problem and non-problem drinkers resulted in the model proposed at the end of this study. Problem drinkers consumed twice the amount of alcohol as non-problem drinkers. Problem drinkers were more likely than non-problem drinkers to be male and unmarried (Brennan & Moos, 1996). Problem drinkers experienced lack of quiet and safety in their residences, and a higher rate of financial problems than non-problem drinkers. Socially, problem drinkers also had more conflicts with spouses and friends, and fewer social resources (support from friends and family) than non-problem drinkers. During stressful situations a problem drinker was more likely to use "avoidance coping strategies", which consist of "efforts to avoid thinking about a stressor and its implications and includes an expression of stress-related emotions without attempting a resolution" (Brennan & Moos, 1996, p. 198). Even if an individual did not use alcohol specifically as an avoidance coping strategy in their earlier years, after retirement some adults who were prone to avoidance coping in times of stress would begin drinking due to lifestyle changes.

Wray, Alwin and McCammon (2005) found that while higher income level is associated with less alcohol consumption among middle-aged adults in the United States, after retirement income has little effect. Characteristics specific to the elderly, such as boredom, sickness and loss of social networks can compel an individual to increase their alcohol intake after retirement. According to Atkinson (1999) without a strong sense of social and familial support, even with no prior history of alcohol abuse, an elder can develop late-onset alcohol abuse. An elder is even more prone to developing problem drinking behaviors if their spouse engages in problem drinking and/or approves of their behaviors (Atkinson, 1999). Schutte (1998) followed 274 adults between the ages of 55 and 65 for seven years. Seventy-seven of these individuals who developed new alcohol-related problems, reported prior to age 50 they were inclined to increase their intake of alcohol in response to negative effects or stress, compared to those members of the study who did not abuse alcohol later in life.

Brennan and Moos (1996) note in investigating alcohol abuse in the elderly it is important to distinguish between the differences with late onset drinkers (those who began using alcohol after age 50), and early onset drinkers, who carried preexisting alcohol abuse into older age. According to Messinger, early onset alcoholics comprise two thirds of elderly alcoholics (p. 168). This group, most often, has already experienced the negative social effects of alcoholism, and as a result, by the time they reach retirement has already exhibited antisocial behavior, and experienced “estrangement from their family members, socioeconomic decline and a family history of substance abuse” (Menninger, 2002, p. 168; Brennan & Moos, 1996). Early onset drinkers are also more likely to have chronic alcohol related medical problems, cirrhosis, organic brain dysfunction (symptoms related to dementia brought on by alcoholism) and psychiatric disorders (Menninger, 2002; Luggen, 2006).

Late onset problem drinkers reported fewer physical symptoms than early onset drinkers, which could be attributed to the cumulative physical effects of alcohol abuse over time (Luggen, 2006). Late onset drinkers also experienced less social stressors from friends and received more emotional support from family and friends than early onset problem drinkers (Brennan & Moos, 1996; Menninger, 2002; Liberto & Olson, 1995). Late-onset drinkers have “generally attained a higher level of education and income” (Menninger, 2002). Retirement, non-health-related negative life events, as well as heightened relationship stressors (i.e. conflicts with friends, loss of a spouse) were associated with increased problem drinking in their later years (Brennan & Moos, 1996). Late onset drinkers often are more responsive to treatment, and may even have spontaneous recoveries if their current life situation improves physically and or socially. Unfortunately, alcohol abuse among these individuals is also more likely to be overlooked by health professionals, family and friends, which can lead to cumulative health-related consequences (Menninger, 2002; Liberto & Olsin, 1995).

Brennan and Moos (1996) found in the sample population of their study, only four percent of late onset drinkers and twelve percent of the early onset problem drinkers sought treatment. In these cases, health problems, negative life events and friends disapproval of

drinking were the catalysts for seeking treatment. Researchers further note that although late-onset drinkers may not experience the same social consequences for their drinking as early onset drinkers due to their decreased social obligations, the physical effects of drinking may lead to a shortened lifespan (Luggen, 2006; Thomas & Rockwell, 2001).

Moos, Schutte, Brennan and Moos (2005) explored some of the potential physical and social ramifications of alcohol abuse when they sampled 1291 adults between the ages 55-65 regarding (1) their levels of alcohol consumption, (2) number of confrontations with family and friends, and (3) falls due to alcohol abuse at the onset of the study, and then again at one, four and ten years following the study. Thirty one percent died or did not complete the ten-year duration of the study. Of those who participated till the end of the study, both men and women saw a significant decrease in the amount of alcohol intake at each point in the process. From the beginning of the study the amount of women who abstained from alcohol increased from 7.9% and 12.9%, and the amount of men who abstained increased from 20% and 20.6% at the end of the study; “in the sample overall, at each wave older individuals tended to consume lower amounts of alcohol” (Moos, et al., 2005, p. 833).

Overall, if individuals drank more than seven drinks a week or three drinks per day during the week in their youth, they were likely to continue to drink above the recommended amount in their late adulthood as well. The most consistent additional predictors of drinking for this population were an individuals’ friends’ approval of drinking, smoking and reliance on avoiding coping as cited by Moos and Brennan (1996). Often the onset of health problems led individuals to decrease their drinking under the guidance of a physician. Controlling for demographic factors, a history of heavy drinking and an increased response to stressors, individuals who had more than two chronic physical ailments, used more than two prescription medications, or experienced at least one acute health event annually predicted a higher likelihood of reduced drinking or abstinence (Moos, et al., 2005). This decrease in alcohol intake often comes from a physician’s recommendation. A physician’s role as a health professional often lends them opportunities to interact with elderly patients as an authority, in which they can educate elders on the physical dangers of the excessive intake of alcohol.

Diagnosing Alcoholism in the Elderly

It is strongly recommended that physicians be persuaded to screen for alcoholism in elderly patients (Luggen, 2006; Thomas & Rockwood 2001; Blow, 2002). Given the wide variety of screening instruments available, adaptation and implementation of a brief screening tool within a physician’s practice may very well enhance the care and treatment older adults receive. Historical and cultural factors often render older adults too ashamed to seek out personal treatment. Also, they do not view their alcohol consumption as a problem, so physicians should not rely solely on self-reported symptoms of alcoholism from their elderly patients (Blow, et al., 2002). Because later in life, individuals may not engage in the same roles and activities of an early or middle-aged adult, (jobs, parenting, social obligations) combined

with the expectations of elderly frailness, exhaustion, chronic sickness, senility and frailty, it becomes easier to hide addiction from friends and family (Williams, et al., 2005).

A patients' medical history and a review of symptoms can reveal findings that suggest alcohol dependence (Luggen, 2006; Williams, et al., 2005). Some alcohol-related conditions or problems include poor nutrition and nutritional deficiencies, history of gastrointestinal bleeding, aspiration, pneumonia, depression, dementia, insomnia, gait disturbances, urinary incontinence, pancreatitis, and liver disease (Luggen, 2006; Thomas & Rockwood, 2001). Older persons on lower fixed incomes may sacrifice nutrition and hygiene needs in order to buy alcohol (Benshoff & Harrawood, 2003). A physical examination by a doctor may reveal bruises or tumors on the body caused by ecchymoses and spider angiomas, flushing of the face and inflammation on hands (palmar erythema), the poor condition of teeth, sluggish pupil reaction, tearing of the eyes, and other common physical indicators of alcohol abuse (Luggen, 2006; Menninger, 2002). With prolonged abuse, the abdomen may also be extended, the liver may be enlarged, and the veins of the abdomen may be distended (Luggen, 2006; Menninger, 2002). Doctors may attribute these symptoms to old age and prescribe medications that potentially could result in heightened health problems when combined with alcohol. Barrick and Connors (2002) argue that one of the central reasons that alcohol abuse in older adults is under-diagnosed is the misdiagnosis of the symptoms of alcoholism as signs of natural aging.

Blow, et al. (2005) explain that the DSM-IV, and a routine self-report questionnaire to diagnose alcoholism, may not be effective in older adults because they often are not in the context to experience the negative legal, social or psychological consequences listed in the criteria (p. 52). Other researchers have noted some that are more successful at diagnosing substance abuse within the elderly population. The Alcohol Use Disorders Identification Test, the Michigan Alcohol Screening Test-Geriatric Version, and the Geriatric Depression Scale can reveal alcohol dependency, and have proven successful in recognizing alcohol abuse among the elderly (Williams et al., 2003; Menninger, 2002). Hinkin, Castellon, Dickinson-Fuhrman, et al. (2001) recommend a modified version of the CAGE evaluation, in which the phrase "drug abuse" is added to questions regarding alcohol behavior, such as, "Do you ever feel guilty about your drinking or drug abuse?" The CAGE is designed to detect the presence of substance abuse, not the specific nature of the disorder. The data of Hinken, et al. (2001) indicate that this particular device will accurately detect substance abuse among the elderly 90% of the time. Crpitel (1997) argues that while the CAGE is effective in its diagnosis of the White Males for which it was designed, the language of the RAPS test is more inclusive in its design and is often more accurate in detecting alcohol abuse in females and people of other races and ethnicities. The CAGE can have as low as a 60% success rate with minority groups, while the RAPS range from 80-90% in accurate detection of alcohol and drug abuse. Through conscious examination and education, routine evaluations can help in the diagnosis of alcohol abuse.

Treatment

Once diagnosed, alcohol and drug withdrawals may be complicated by other chronic illnesses in older adults. In cases where prolonged abuse is detected and accompanied by other conditions associated with old age, inpatient therapy may be the best and safest option so health can be monitored (Luggen, 2006; Bartels, et al., 2005). In these situations, after detoxification, a nursing home can help deal with social stresses, family consultation, medical therapy and the management of depression (Luggen, 2006). Holistic individualized programs are the most effective in the treatment of older adults with substance abuse issues. A client's gender, ethnicity and race, and cultural beliefs in respect to mental health treatment can affect their perceptions of treatment programs (Bartels, et al., 2005). In response, Bartel, et al. (2005) recommend programs be established to create a network of healthcare providers aware of the factors surrounding the variation in characteristics of the elder population in relation to substance abuse.

Medications

Depression among elderly patients is prevalent and usually linked to the transition into retirement, regrets over missed opportunities, loss of social networks, and death of their spouses or peers contribute to damaging drinking behaviors, which could lead to increased alcohol consumption (Atkinson, 1999; Klueger & Ressler, 2006; Williams, et al., 2005). According to Dupree and Schonfeld (1998), individuals who struggled with alcohol abuse in their youth often relapse after retirement because there are less social consequences once they are no longer required to report to work, and the boredom and limited social interaction can compel those who drank in moderation in their youth to begin drinking more to combat feelings of depression and lack of purpose. Atkinson (1999) suggests doctors use caution when prescribing antidepressants to older adults. Side effects of these drugs, especially if mixed with other substance abuse can be detrimental (Atkinson, 1999).

In some cases, doctors prescribe medications to help older adults to control their drinking, but many of these prescriptions can have negative side effects (Luggen, 2006). Disulfiram, the only medication available to treat alcoholism before 1995 has severe side effects ranging from hepatitis at high doses, psychosis, headaches, drowsiness, rash, fatigue and a garlicky taste in the mouth, and is not recommended for older patients (Luggen, 2006). Other medications such as Naltrexone and Acamprosate have fewer side effects (Luggen, 2006; Barrick & Connors, 2002). Nausea, fatigue, insomnia, vomiting, anxiety, dry-mouth, severe indigestion, and elevated liver function are associated with Naltrexone, while diarrhea is the most common side-effect of Acamprosate. According to Barrick and Connors (2002) "because of their demonstrated efficacy and benign adverse effect profiles, Naltrexone and Acamprosate are attractive medications for potential use in older populations" (p. 591). Although studies show that these medications are as effective for older patients as younger patients, "strict compliance with these medications is critical to their effectiveness" (p. 591). Kudzu, a plant that

is native to the Southern United States, in limited studies, appears to decrease the intake of alcohol when ingested before drinking due to the isoflavones present, but does not appear to control craving for alcohol in subsequent drinking sessions (Lukas, 2005). It is recommended that all medications be combined with counseling in order to effectively treat alcoholism (Luggen, 2006).

Counseling

According to Luggen (2006), nearly 33% of all calls to AA are people 55 and older, but for many older adults, the twelve-step program may not be as effective as it is with younger and middle-aged adults for whom it was designed. Yet, there are not many programs dedicated to the specific needs of elders who abuse alcohol, and there are limited numbers of professionals trained to address the unique concerns of this population (Williams, et al., 2005; Brennan & Moos, 1996; Bartels, et al., 2005; Dupree & Schonfeld, 1998; Benschhoff & Harrawood, 2003). Williams et al. (2005) point to the absence of literature that focuses on aging and alcohol abuse in counseling journals, which could partially explain why professional counselors are unprepared to address alcoholism in the elderly, and call for the need for more research in effective prevention and treatment of this growing issue.

Rather than complete abstinence, which is a common approach with younger people's substance abuse issues, Williams, et al. (2005) promote counseling that offers older adults options to minimize their intake that are both respectful and empathetic. This approach often involves group therapies that focus on the issues that bring on alcohol abuse. For example, Sedlack, Doheny, Estok, et al. (2000) found that while men need to focus on issues of weakness, dependency, and self-sacrifice, women often benefited more from group support to increase self-esteem and address issues of vulnerability. According to Barrick and Connors (2002), older adults will more often relapse because of intrapersonal issues, such as a negative emotional state, than interpersonal issues such as pressure from peers. Professionals working with older adults should focus on helping older adults to cope with intrapersonal issues without the use of alcohol. Intrapersonal issues include "a supportive, non-confrontational approach, building skills to cope with negative emotions (e.g. loss, loneliness), rebuilding a social support network and offering appropriate medical and social service linkages" (Barrick & Connors, 2002, p. 588).

Dupree and Schonfeld (1998) found helping older adults gain the skills necessary to rebuild and develop lost social networks and self-help approaches to overcoming loneliness, grief and depression may lessen dependence on alcohol. Moos, et al. (2004) recommend older adults with problem-drinking should "embed themselves in a social network composed of low or non-drinking peers" (p. 836). In addition, informal help by friends and family reduced drinking problems in older adults more than formal services such as AA (Moos, et al., 2004). According to Benschhoff and Harrawood (2003), group and family therapies may be especially beneficial, as they help address the issues of loneliness and lack of social support that are frequently reported

to be significant problems for the elderly. However, “peer self-help groups can be an excellent source of treatment, but they are not a substitute for professional intervention” (p. 47).

In some cases, the presence of family and/or friends can be beneficial in professional intervention. Atkinson (1999) found alcohol dependent men were more likely to comply with treatment if their wives were involved in the counseling process. According to Bartels, et al. (2005), individual home care and outpatient programs appear to be most effective, and studies show older adults respond as well to cognitive behavioral therapy as younger patients (p. 17). Brennan and Moos (1996) note that “individual focus, structured program policies, flexible discharge rules more comprehensive assessment, and extensive mental health aftercare,” tend to be most successful (p. 198). In addition, care management services such as Meals on Wheels can be helpful in providing outreach treatment and social interaction for elders who are recovering from substance abuse (Bartels, et al., 2005).

Brief intervention for alcohol problems is always more effective than no intervention, and often as effective as prolonged, extensive intervention (Menninger, 2002; Bien & Miller, 1993). A brief intervention “typically consists of two or three 10-15 minute counseling sessions which may include motivation-for-change strategies, patient education, contracting and goal setting, behavioral modification techniques, and the use of written materials such as self-help manuals” (Menninger, 2002, p. 176). A cognitive behavioral therapy approach has proven effective in these contexts, and although a brief intervention will often lead to initial feelings of shame, such approaches often prove effective in significantly reducing alcohol abuse in the elderly (Fleming & Manwell, 1999).

Physicians can also offer brief intervention in the context of medical check-ups. Ten to fifteen minutes of discussing the effects of alcohol with individual patients’ health in relation to other diagnoses can increase efficacy and reduce the stigma associated with alcohol; in this context alcohol abuse is framed as a health, not a moral issue, which can make it easier for patients to assess personal goals, discuss barriers and institute change strategies (Bartels, et al., 2005). Bartels, et al., 2005 found that if primary health care providers offer brief counseling sessions of 10-15 minutes in length with follow-up appointments, they can help increase efficacy in their patients in a way that is cost-effective for the healthcare system. In cases of late-onset alcoholism, health counseling from medical professionals may be the only necessary intervention (Bartels et al. found).

Preventative Measures

Bartels, et al. (2005) suggest increasing the number of prevention programs available, such as “psychosocial supports”: involvement in meaningful activities—such as volunteerism or part-time work—involvement in faith-based activities; and programs aimed at addressing poor physical health, pain and chronic illness that are associated with adult onset substance abuse.

“Health promotion, education and support for healthy lifestyle changes, physical healthcare screening” offer preventative measures to minimize later high cost healthcare related to alcoholism and substance abuse (Bartels, et al., 2005, p.14). In the early stages of alcohol abuse, intervention programs which take a “broad and holistic approach to treatment, keeping the treatment program flexible and adapting treatment as needed” in response to clients’ individual characteristics can help individuals develop coping mechanisms for life changes associated with aging (p. 13).

Professionals outside the medical and counseling fields can also provide guidance and support for elders who begin to abuse alcohol after retirement. Lawyers who handle finances for elderly clients can help combat substance abuse by focusing on the drain that alcohol represents on one’s finances, especially if they are on a fixed income (Benshoff & Harrawood, 2003). As a medical professional can offer counseling from a health perspective which minimizes stigma, a financial advisor can offer financial advice that is less likely to be interpreted as a personal moral attack.

Suggestions for Future Research

In order to address the growing problem of older adult substance abuse, researchers call for more studies to assess the contextual factors related to adult onset substance abuse and how medical professionals, social service providers and the general community can become more aware of signs and effective perspectives to this increasingly prevalent illness (Brennan & Moos, 1996; Bartels, et al., 2005; Williams, et al., 2005; Blow, et al., 2002). It is vital that routine clinical practices respond to research findings. Many health and social service providers are not trained to recognize and treat the symptoms of substance abuse among the older population, and need to be made aware of not only the prevalence of this issue, but the unique methods of prevention, intervention and rehabilitation as compared to younger drinkers (Bartels, et al., 2005; Blow, et al., 2002; Brennan & Moos, 1996; Williams, et al., 1995; Menninger, 2002). Currently, too many service providers draw upon methods that are more effective with the younger cohorts for which they were designed than the elderly population. Personal, individualized intervention and treatment has proven to be most effective with elders. In response to these findings it is important those reaching out to the elderly in their communities consider environmental and economic factors related to problem drinking and substance abuse in their geographic areas (Brennan & Moos, 1996; Williams, et al., 2002; Menninger, 2002; Blow, et al., 2002; Bartels, et al., 2005).

Family, friends, service providers, caregivers, and clinicians’ ignorance, tolerance, acceptance, or denial of substance abuse in elders only exacerbates the problem and leads to more physical, psychological, emotional, and financial stressors for substance abusing elders. Ultimately, such stressors can lead to premature illness and even death for such elders. Researchers, professionals, and the general community need to be more aware of the prevalence

of substance abuse among the elder generation, and the probability that it will only increase in severity as the coming baby-boom generation reaches retirement.

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Appendix B: Methodology

Focus Groups

A total of 12 focus groups were organized across Hancock County in the following towns: Ellsworth, Bucksport, Mount Desert Island, and Blue Hill.

Focus groups were arranged by Healthy Hancock Collaborative Members. Participants for focus groups were recruited by word-of-mouth, recruitment flyers, and a newspaper spot developed for the project. Hancock Collaborative Members arranged space for focus group meetings within each of the selected locations.

All focus group participants were read an informed consent document prior to the start of the focus group explaining the rights of research participants. Participants also completed demographic profile sheets allowing us to better understand the composition of focus group participants.

The following are some noteworthy demographic figures on focus group participants:

Total # of Participants: 76 (74 returned completed demographic profile sheets)

Gender: 79% female and 21% male

Race/Ethnicity: 93% of participants identified themselves as Non-Hispanic White, 1% were Hispanic, and 5% identified as Franco-American

Age: Ages of participants ranged from 28-85; 5% of participants were under the age of 40, 66% of participants were 40-64 years old, and 29% of participants were 65 and older

Highest Level of Education: 1% had completed grade school, 10% had completed high school or earned a GED, 54% had some college education, and 35% had completed graduate school studies

The focus group discussion guide consisted of both original questions constructed specifically for this research project, as well as modified items from the Community Readiness Model Assessment. All focus group facilitators were trained in focus group facilitation using concepts from *The Focus Group Kit* developed by David L. Morgan and Richard A. Krueger. Data from the focus groups were analyzed using qualitative analytic methods.

Key Informant Interviews

The interview instrument consisted of modified questions from the *Community Readiness Model*. It was designed to compliment and expand on focus group questions previously administered. Key informant interviewees were recruited from across the state of Maine via feedback from Healthy Hancock Collaborative Members, experts in the field, recovery community members, and project advisors. Identified key informants were then invited to take part in the project and were given the option of participating in an interview that utilized one of four available formats: a telephone interview, personal (in-person) interview, printed hardcopy mailed via U.S. postal service, or an electronic version sent via e-mail. These options were provided to boost interview participation by busy professionals. Resulting data were also examined using qualitative analysis techniques.

Statewide Survey

A 33-item survey instrument was developed specifically for this study by the Center on Aging. Both closed and open-ended survey questions were developed based on relevant research questions. Modified items from the Community Readiness Assessment Model were also included among the survey items. Survey sampling was designed to tap the expertise of a wide variety of professionals including social workers, counselors, administrators, drug and alcohol abuse treatment providers, and professionals working within the field of aging.

A sample of 1,000 names was drawn randomly through use of the random-select feature in the Statistical Package for Social Sciences (SPSS) software. Of the 1,000 names drawn, approximately 700 were selected from a list of licensed drug and alcohol treatment professionals in the State of Maine; 150 were selected from a list of licensed social workers in the State of Maine; 100 were selected from a list of licensed counselors in the State of Maine; and the remaining 50 names were drawn from a list of professionals in attendance at the 2005 Bar Harbor Geriatrics Conference. Of the 1,000 packets sent out, approximately 220 surveys were returned representing a response rate of 22%.

Secondary Data Analysis

Hospital emergency room admission data were collected from Blue Hill Memorial Hospital for the years 1995-2004. All other hospitals in Hancock County deferred to the Maine Hospital Data Organization. However, the cost of accessing such data from the MHDO was cost prohibitive to this project.

Uniform Crime Reporting (UCR) statistics, representing all drug and alcohol-related arrests statewide by age and county were obtained for the years 1995-2005. Resulting analysis was carried out by age group and type of offense. "Since July 1973, the State Police have administered the [UCR] program as a statewide, uniform method of collecting statistics on crime

as it is reported to law enforcement and producing a reliable set of criminal statistics for use in law enforcement administration, operation and management. Additionally, Maine's statistics are forwarded monthly to the Federal Bureau of Investigation for inclusion in the annual Crime in the U.S. Report” (Maine Department of Public Safety, n.d.).

Data from the Maine Treatment Data System representing statistics on substance abuse treatment throughout the state was obtained for the fiscal years of 2003 and 2004. Data from these sets were separated out for Hancock County, and were analyzed by age and diagnosis in comparison to statewide totals. “The Treatment Data System (TDS) is a legislatively mandated data collection system. It collects admission and discharge data from a variety of substance abuse treatment agencies in the state of Maine. Primarily, data are collected on all clients at all agencies who receive funds from the Office of Substance Abuse. But it also collects data on clients who enter treatment as a result of an OUI, Medicaid reimbursable clients and clients in methadone programs” (Maine Office of Substance Abuse, n.d.).

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Appendix C: Brief Commentary

Throughout the course of this year-long research study, several noteworthy issues occurred of which program planners and other interested parties should be aware:

First, in the process of obtaining secondary data, it was discovered that much of Maine's data sources are not easily accessible; records are often incomplete or missing altogether. When data are available it is often costly and time consuming to access. One recommendation for further consideration, as the Keeping Seniors Home Advisory Group is undertaking currently in the state of Maine, is examining the data gaps that exist for this population (older adults), and the barriers to accessing such information. To the extent that such information is available to program planners and the public in a useable format, the greater the impact we stand to have on numerous social and health issues that confront our state.

Second, while many physicians, counseling professionals, community members, and other key informants throughout the state were invited to participate in this research, very few opted to participate. This represents a critical missing piece in the research. Unfortunately, such groups are often difficult to engage for many reasons, including busy schedules. Many, when contacted, were immediately turned off by the subject matter in a manner that further suggests the avoidance occurring around this issue, both locally and statewide.

Third, during the course of this study, there was a heightened amount of publicity around aggressively preventing and addressing teenage drinking in Hancock County. In fact, there were many high profile cases of parties and gatherings involving underage drinking being shut down by Hancock County law enforcement during the course of our year long study. Through our discussions with stakeholders, a perception among community members and leaders that this push to curb underage drinking was quite effective was noted. The awareness of community members regarding this campaign colored much of what was discussed within focus groups and interviews and in many ways serves an example of a community banding together to address alcohol and substance abuse through collaboration with law enforcement and prevention groups. Many of the residents we spoke to wondered how we might be able to learn and draw from the energy that surrounds teenage drinking and utilize some of the lessons learned to address older adult alcohol abuse.

Appendix D: Unintended Findings

One unintended finding was the great emphasis on informal services and help for older adults versus more formal treatment programs. Initial focus group questions were drafted to probe more formal services that serve this population. However, focus group participants stated adamantly that older adults do not view formal treatment programs as an attractive option in addressing problematic alcohol use.

Appendix E: Additional Graphs/Charts

How Often Older Adult Clients are Seen in a Month: As Reported by Professionals Surveyed

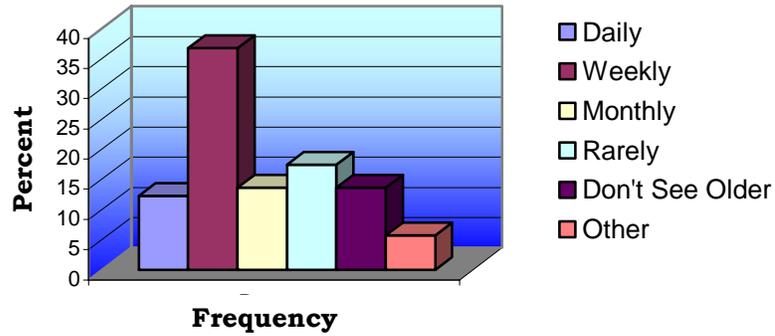


Figure 21: How Often Older Adult Clients are Seen in a Month: As Reported by Professionals Surveyed

Resources Professionals Use to Learn About Alcohol Abuse

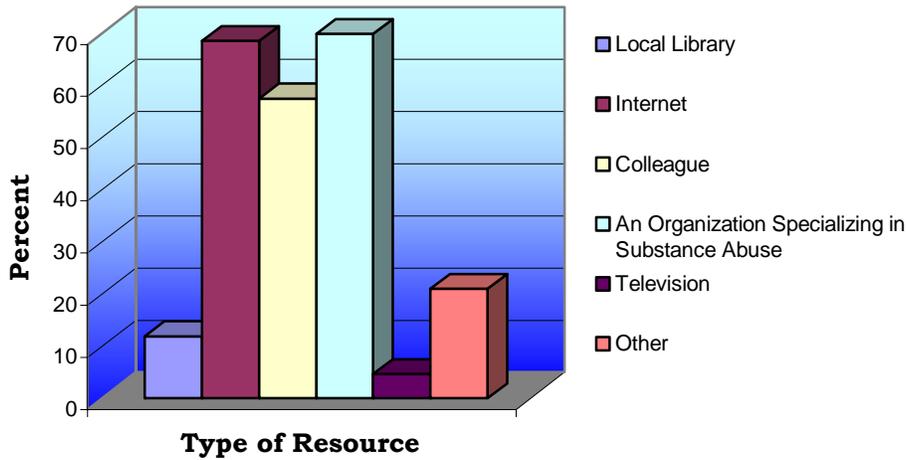


Figure 22: Resources Professionals Use to Learn About Alcohol Abuse