

The Prevention of Substance Abuse And Misuse Among the Elderly

**Review of the Literature and
Strategies for Prevention**

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Executive Summary

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SUBSTANCE ABUSE AND MISUSE

The Washington State Division of Alcohol and Substance Abuse has identified the prevention of substance abuse and misuse among the elderly as a priority area for attention and action. Abuse is differentiated from misuse in that substance abuse is deliberate and intentional; misuse is inadvertent and may be perpetuated by another, often by a health care provider. Among the elderly alcohol is the substance typically associated with abusive use whereas misuse involves prescription and proprietary drugs. Both abuse and misuse are related to undesirable physical, social, and psychological consequences, result in increased risks of development of other problems, and contribute significantly to health care costs. They also are factors in reduced quality of life. Older adults aged 65 and over make up 12% of the population of the state, with projections for further proportionate increases in the future. In light of these facts, efforts to prevent abuse and misuse in this segment of the population take on increased importance.

ALCOHOL

Risk Factors:

While the relative level of alcohol abuse problems among older adults is lower than for other age groups, the potential for development of these problems is comparatively high because of physiological changes that alter and increase alcohol effects. Drinking can be especially problematic for persons with medical problems and those taking prescription medications, conditions for a majority of older adults. Further, although most alcoholism develops in young adulthood, an estimated one-third of elderly alcoholics first experienced drinking problems as older adults. Such late onset alcoholism is often related to stresses associated with aging, retirement, and bereavement. Other older adults who have already developed drinking problems may increase their drinking in response to these stresses as well, behaviors that may lead to a recurrence of active alcoholism or contribute to additional health risks.

Prevalence:

The national prevalence rates for persons aged 60 and over who meet standard criteria for alcohol dependence or abuse range from 1.4% to 3.7%, depending on the study site. These rates are higher among elderly males than females, reaching 4.6% compared to less than 1%. Other national studies have found that about 6% of older adults can be classed as heavy drinkers, and thus subject to alcohol-related problems. Extrapolated to the Washington state population, these rates suggest that from about 11,000 to around 28,000 of the state's older adult residents have current alcohol abuse or dependence problems. With one third of these problems likely to be of recent onset, attention to

prevention for this age group could intervene in the development of problem drinking for as many as 9,400 seniors. The elderly are typically under represented in alcoholism treatment, accounting for just 1% of the patients in inpatient and outpatient programs nationally.

Social and Psychological Factors:

Research shows that most people do not change their alcohol consumption with aging, and if they change, are more likely to decrease than to increase drinking. This stability of consumption generally holds even in the face of social and personal losses and stresses. The individuals most at risk of developing drinking-related problems as older adults are male, the younger old (under 75), those with lower education and incomes, and those who have been divorced or separated. Widowhood also is related to drinking problems for men but not for women. Most older adults are able to cope well with life stresses and are aided in this by social supports from family and friends. The elderly who have more chronic, ongoing sources of stress, coupled with a lack of social network supports and resources, are more likely to be excessive drinkers.

The significance of social messages about and social support for drinking is seen in the comparatively higher rates of consumption in retirement communities. In these settings, it is the most socially outgoing who are the heaviest drinkers, drinking increases for some people, and women also are likely to have higher rates of consumption. This responsiveness to social conditions suggests that the prevalence of problem drinking among the elderly may well increase with the aging of younger and more tolerant cohorts.

PRESCRIPTION AND PROPRIETARY MEDICINES

In contrast to alcohol abuse patterns, today's elderly are more likely to encounter problems with prescription misuse than those in other age groups. About 80% of older adults have some chronic medical condition, and the likelihood of multiple medical problems increases with advancing age. The elderly receive from 25% to 30% of all prescriptions and use these drugs at a rate as much as two and a half times that of younger persons. Seniors also are heavier users of proprietary or over the counter medications. Multiple medical conditions, complex medication regimens, and the use of multiple care providers sets up a situation for high risk of adverse drug reactions. It is estimated that the elderly suffer two to five times the frequency of adverse drug reactions as occur among younger people, and some 10% of hospital admissions for seniors are due to such reactions.

Risk Factors:

Prescribing practices are part of this problem. A recent report on a national study found that nearly one-quarter of the elderly are receiving prescription drugs whose use is contraindicated among that age group because of risks of adverse reactions. The elderly are particularly vulnerable to adverse reactions to psychotropic medications, a type of drug whose use is often not recommended for seniors or for prolonged periods because of risks of confusion, sleep disorders, falls, and misinterpretations of these symptoms as signs of senility. Older adults are nonetheless estimated to receive as

many as 50% of the prescriptions for psychotropic medications. Older women, more likely to present symptoms of emotional distress to a doctor, are prescribed psychotropic medications at rates almost 160% higher than older men.

Miscommunication among providers and patients contributes to prospects of misuse, as does lack of coordination and follow-up of care. The older adult often has sensory and cognitive deficits that make understanding medication instructions difficult, but physicians typically spend less time with their older patients than with younger ones and are likely to provide them with less information about their medications. The elderly themselves also play a role in medication misuse, failing to fully report symptoms and often underusing medications to avoid side effects or to save money, or using them in combination with alcohol, a situation that heightens the risk of adverse effects.

PREVENTION STRATEGIES

Prevention strategies for older adult substance abuse and misuse need to take into account that the usual distinctions between primary, secondary, and tertiary prevention are a poor fit with the patterns of substance use and health problems already present among seniors. Among the elderly, a condition may be simultaneously a preventable disease and a problem in its own right, as well as being a precursor or risk factor for another condition. It is thus appropriate to direct prevention efforts toward management of conditions that have already developed as well as to the primary prevention of new ones. Intervention in alcohol problems, for example, becomes primary prevention against the development of other health problems, and perhaps the most appropriate strategy for misuse of licit drugs is appropriate medication management of a continuing health problem.

Model Approaches:

The targets for prevention of elderly substance abuse and misuse should be multiple ones, including older persons themselves, the physician and other health care providers, other senior service providers, family members, voluntary organizations, and the general public. The most common strategies used elsewhere are information and awareness campaigns and education and training of older adults and service providers. There are many published materials and pamphlets available to use in an informational package, as well as structured training programs designed for different audiences. Information about the risks of medication misuse is readily available at most pharmacies and, along with information on alcohol problems, through senior services providers.

For the most part, there is little indication of whether or not these strategies have been effective. There is some evidence that teaching the elderly to ask more questions and both provide and obtain more information during a doctor's visit reduces the risks of medication misuse. The training of physicians in better patient communication and compliance management also reduces medication misuse, and improved physician responses to indicators of alcohol problems would increase the prospects of early identification and appropriate referral. The most successful educational efforts for those at risk of developing problems follow up the provision of information and training with indi-

vidual counseling and personal contacts. Such personalized strategies are thought to be particularly important for ethnic minority elderly. Connections with community and voluntary organizations and churches are also important for reaching older adults. Finally, since many of the factors affecting risks for elderly substance abuse and misuse are based in social norms, patterns, and institutions, attention to these and to public policies may be needed as well.

RECOMMENDATIONS

Recommendations for development of a substance abuse and misuse prevention program for this population include the involvement in program design of senior services and other interested agencies and organizations as well as representatives of older adults themselves. Strategies for consideration might involve the use of existing materials to compile a resource information package for widespread distribution, and education and training for the elderly, their families, and providers of other services and health care. A focus on general health behaviors and support for secondary intervention and treatment as well as primary prevention is suggested, as are considerations of pilot projects to link information and education with more personalized follow-up. Finally, there needs to be support for policy initiatives to underscore these and other efforts to improve the health and well-being of older adults.

**THE PREVENTION OF
SUBSTANCE ABUSE AND MISUSE
AMONG THE ELDERLY**

Review of Literature and
Strategies for Prevention

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The Washington State Division of Alcohol and Substance Abuse has identified the prevention of substance abuse and misuse among the elderly as a priority area for attention and action. The Division contracted with the Alcohol and Drug Abuse Institute at the University of Washington to 1) review the scholarly and professional literature on the subject, and 2) review programmatic and other informational materials from other states and government sources. The objectives of these reviews are to provide a description of the extent of substance misuse and abuse/dependence problems; to summarize the effects of alcohol and other licit and illicit drugs on the elderly and their social, behavioral, and psychological relationships; to identify issues involved in prevention considerations for this age group and in this state; and to develop strategies for effective prevention approaches.

I. DEFINITIONS

The discussion of the prevention of substance abuse and misuse by senior citizens must be prefaced by a series of critical definitions of what is meant by prevention, abuse and misuse, and the elderly. None of these definitions is without complexity and qualification, and the literature reviewed here sometimes employs varying definitions in each of these conceptual areas.

PREVENTION

Preventative actions are typically subdivided into three types: primary, secondary, and tertiary. Primary prevention refers to steps taken that preclude the occurrence of the unwanted activity or outcome. In the case of substance abuse, this may mean preventing any use of a drug, and this is the meaning generally intended in reference to illegal drugs and tobacco. For legal use of alcohol and drugs obtained by a prescription or legitimately purchased, primary prevention would also involve

actions designed to preclude the development of any problematic use. In this sense, it is not use itself that is the target of prevention but problems that might result from use.

In this latter meaning, primary prevention somewhat overlaps with secondary prevention, especially for those who are already using a substance. Secondary prevention is defined as strategies or actions taken to interfere with the onset or progress of disease. The target population for secondary prevention may be persons whose use puts them at potential risk of problem development or those who are already encountering problems. For those with problems, the term often used is early intervention, and its aim is to keep problems from worsening. Tertiary prevention also references actions undertaken to intervene in the progression of problems, particularly in cases where the problems are severe, and is often synonymous with treatment or intervention. According to one review of elderly substance abuse, all three of these types should be applied in considerations of prevention for senior citizens (Lawson 1993).

ABUSE AND MISUSE

The primary distinction between substance abuse and substance misuse lies in the quality of intention guiding use: abuse is deliberate; misuse is not. Abusive use of a substance requires an awareness that the frequency or quantity of use, or the substance itself, is somehow inappropriate or improper, with the substance used despite knowledge that undesirable physical, psychological, or social consequences are likely to result. Misuse, in contrast, is characterized by inadvertency, and with seniors often involves persons other than the user. These others may be a physician or other health care provider, a family member, or a friend acting as a caregiver (Glantz 1985). Misuse may involve underuse as well as overuse, with underuse much the more common form among seniors (Lamy 1985).

Alcohol, illicit drugs, prescription medications, and over the counter or proprietary medicines can be both abused and misused according to these definitions. When the user is an older person, the substance used is more likely to be a licit rather than an illicit drug (Glantz 1985). Although a psychoactive effect might result from use of one or a combination of these substances, and the effect may be sought after, this effect itself is not critical to the definition of abuse or misuse. Note also that use that begins as inadvertent misuse may become abuse under certain situations. This might occur with prescription drugs when a user falsifies a prescription, deliberately seeks out additional prescriptions from other physicians, uses a drug prescribed for another, or purchases prescription drugs illegally. It might also occur in situations when, after unintentionally inappropriate use is identified by a physician or other authority (such as with alcohol problems or alcohol/licit drug interactions), the individual nonetheless persists in using.

ELDERLY

Attaining the status of senior citizen in the United States occurs at no single beginning age, an ambiguity that carries over into the literature on elderly substance abuse. The initial classification as elderly may be as young as 50 and go up to age 65. Although some of the studies referenced here include as part of their sample of seniors persons aged as young as 50 (sometimes called “late middle-aged”), 55, or 60, the general use of the category “elderly” is confined to those 65 and older. This demarcation conforms to that typically associated with retirement, fits most governmental statistics, and is the most common starting point for the research literature devoted to the elderly.

Even with this, one is not looking at a uniform population but a group with a very broad social and physiological range. This range may be further differentiated by reference to the young-old - those at the beginning of the group - versus the “old-old” - those aged 80 or 85 and older. Lamy (1985) points out that, in regard to physiological functioning, there are three stages of life after age 65. The first, between 65 and 74, involves few changes from middle age; the second, ages 75 to 84, is for most a continuation of previous functioning, but many in this age range begin to show signs of secondary and sociogenic aging even without overt disease. By the third stage, aged 85 and older, few individuals can maintain normal activities of daily living without some assistance. These physiological changes are accompanied by social changes, and both types of changes affect the risks of involvement in substance abuse or misuse. Finally, there are considerable differences in aging according to socioeconomic status, sex, race or ethnicity, and by individual life circumstances (Estes and Rundall 1992).

II. REASONS FOR CONCERN

Substance abuse and misuse affect a large absolute number of older individuals and these numbers are projected to get larger. United States Census figures from 1990 indicate that about 10% to 12% of the population is aged 65 or above, with a net daily increase of around 1,500. By the year 2000, there are expected to be 32 million Americans in this age group (Gumack and Hoffman 1992). In Washington state, there were 575,288 residents who were 65 or above in 1990, 12% of the population. Here as nationally, this group is expected to proportionately increase, a growth that may be aided by immigration of retirees from elsewhere.

One consequence of this increased population is likely to be an even greater demand for medical services. Currently 80% of the elderly suffer from at least one chronic disease; they use prescriptions at a rate more than twice their proportion in the population. Many of the diseases and ailments affecting seniors are linked to behavioral or lifestyle factors, including smoking and alcohol consumption, and thus many are preventable (Stoller and Pollow 1994). It is no wonder that, as Estes and Rundall point out, “societal aging compels attention” (1992:318).

Substance abuse and misuse among the elderly primarily involve alcohol and prescription and over the counter drugs. Abuse of illicit drugs is relatively rare. These problems of abuse and misuse do not occur in isolation. Lamy (1988) notes that alcohol abuse, age and disease-related changes, and problems caused by prescription and other drugs are likely to come together in the elderly, making seniors subject not just to each in isolation but to their combined effects. In his introduction to a special issue of the journal "Generations" devoted to senior substance abuse, Frank Whittington (1988) cites both the volume of literature about pharmaceutical use and misuse and the increased societal attention to alcoholism as evidence of consensus that there is indeed a problem. What we still lack is the full knowledge of how to resolve this problem.

Identifying the problems that can and do sometimes result from the use of alcohol should not be over generalized. Old age is not, in and of itself, necessarily a contraindication for moderate alcohol consumption. There is evidence that consumption of one to two drinks a day may have beneficial or at worst benign effects on the health of those without medical conditions or medication regimens that do indeed contraindicate drinking (Dufour et al. 1992). The social benefits of alcohol are firmly entrenched in American cultural practices and beliefs (Pittman and White 1991). They also have been demonstrated in several small studies of institutionalized elderly (Kastenbaum 1988). Finally, the pleasure that can be derived from social drinking is referenced by seniors who chose to drink as a major reason for their imbibing (Stall 1987). Alcohol remains one of the few relatively inexpensive and comparatively low risk routes for psychoactive change available to seniors (Mishara 1985). Although the fact that the ease of this route may lead some to abuse it is reason enough to seek alternatives, the prospect of abusive use has not justified prohibition for other adults and it should not be differentially applied to those who are old.

The case for the benefits of prescription medications need hardly be made. These drugs have enabled many to live longer, healthier, and higher quality lives, and for many are essential to continuing to do so (Estes and Rundall 1992). A large-scale sample study of prescription use by those aged 60 or more in the 1970's found that 39% could not have performed normal daily activities without drugs (Guttman 1978), a proportion that is probably considerably higher today. While over the counter medications are often critiqued, their ready access, low cost, and appropriateness for many conditions for which the elderly need relief makes these substances too an important part of modern life (Coons et al. 1988). Finally, there are those who make a compelling case for the use of even illicit drugs in medically appropriate ways for specific conditions often associated with old age: marijuana for glaucoma and chemotherapy nausea, heroin for pain, cocaine for anesthesia. The point is not to forget that positive uses of pharmaceuticals and psychoactives are among man's most long standing and impressive inventions.

ALCOHOL

The elderly have a relatively low prevalence rate for alcohol problems compared to younger adults.

The reasons most often cited for this reduced incidence include the consequences on this age group of the prohibition era, a “cohort effect” that is presumed to reduce drinking. There is as well the perception that people tend to reduce their drinking as they age, and the reality that excessive drinking and alcoholism contribute to premature mortality and thus the heaviest drinkers in any cohort tend not to survive to old age. Finally, it is posited that alcohol problem prevalence among seniors is higher than statistics would indicate, but the elderly under-report alcohol problems or are under-diagnosed (Holtzer III et al. 1986).

Despite these lower rates and regardless of their causes, there are nonetheless multiple reasons why Washington and other states should direct some part of their attention to the prevention of alcohol problems in the elderly. These reasons include physiological changes among older persons that alter the effects of alcohol and increase the risks of adverse effects (Akers and La Greca 1991), and the fact that, because of these changes, a low or moderate level of drinking might nonetheless be associated with health risks (Willenbring and Spring, Jr. 1988). There is as well the sense that aging is a time of stress and loss, and the expectation that alcohol will be used inappropriately to cope with these (Maddox 1988). Older problem drinkers present some additional problems for society because of stereotypes and expectations about how elders should behave, making drunkenness more offensive to public standards, and, when older adults reside in institutional or congregate settings, drunkenness presents unique management problems (Maddox 1988). Lastly, and perhaps of greatest significance for the prospects of prevention, at least one-third of the elderly who experience serious problems with alcohol first develop these problems in old age (Moos and Finney 1986).

It is likely that the prevalence of drinking and alcohol abuse problems among the elderly will increase in the future with the aging of heavier drinking population cohorts (Akers and La Greca 1991). Part of these probable cohort changes are an increase in the proportion of elderly women with alcohol problems and an increasing willingness to use treatment and other abuse-related services (Gumack and Hoffman 1992). Some changes in the problems posed for society by elderly drinkers are already evident: there was a 200% increase between 1962-1984 in the proportion of persons aged 60 and older who were arrested for drunken driving. This increase is attributed to a healthier older population retaining the ability to drive and thus posing more driving risks, as well as to the related longer survival of problem drinkers (Petersen 1988).

Cost is also a factor stimulating a need for alcohol problem prevention among seniors. In 1989, hospital-associated charges to Medicare for all admissions where diagnosis was alcohol-related totaled \$233,543,500. The median charge for each hospital stay in this study was \$4,514 (Adams et al. 1993). The extent of the problem in the 1989 study, these researchers point out, is probably underestimated by as much as 100%, but even at this, the resulting prevalence is similar to that for the widely accepted health problem of myocardial infarction.

TOBACCO

The prevention of smoking is a high priority concern for adolescents, but the need for attention to tobacco use is very different for the elderly. Primary prevention of smoking is inappropriate for this population, given that the initiation of regular smoking is confined almost completely to those under the age of 25 (National Cancer Institute 1991). A look at the pattern of smoking initiation and cessation among men born between 1911 and 1920 reveals that smoking began by age 35 or earlier, and after the age of 25, the most predominant changes in smoking behavior were discontinued use. A national survey of adults aged 50 and older found that 28% were current smokers, 47% were former smokers, and 25% had never smoked (Orleans et al. 1991). A smaller scale probability survey on health-related behaviors among community-living persons aged 65 and over found just 16% currently smoked regularly; 56% of the non-smokers had been smokers in the past (Stoller and Pollow 1994).

Males from today's population of senior citizens are more likely to have smoked during their lives than men in younger cohorts, demonstrating the changes in societal attitudes towards tobacco use in the past several decades. Older females show a different pattern, being both less likely than younger cohorts of women to smoke and being more likely to initiate their smoking when older. Both patterns reflect changes in social attitudes, and today, the likelihood of smoking initiation among young women is comparable to that for young men (National Cancer Institute 1991).

There are nonetheless some prevention concerns related to tobacco use by senior citizens, and while these are not singled out for further attention in this report, they should be acknowledged. First, although smoking rates are lowest among the elderly, it is this group who are most at risk from smoking because they have smoked longer, tend to be heavier smokers, and are more likely to suffer from illnesses and conditions complicated by smoking (Orleans et al. 1991). Smoking is a risk factor for half of the major causes of death for persons aged 65 and older, is associated with a high prevalence of other health problems, and interferes with many of the medications typically prescribed for many chronic and acute diseases common among seniors. There are clear cost implications in these associations. A 1990 report on a study conducted on five and ten year utilization rates of a large HMO found that elderly persons who were consistently high users of medical care were more likely to be current or former smokers than consistently low users (Freeborn et al. 1990).

Prevention activities associated with elderly tobacco use are most relevant in regard to the advantages stopping smoking has on the development or exacerbation of many medical ailments and the improvement of physical functioning. There is some indication that the benefits of cessation of smoking are greater in older than in younger populations, producing the greatest effects on preventing or reducing the disability caused by chronic illness and improving the quality of life (Orleans et al. 1991). This study of a sample of AARP members also finds that substantial numbers of older smokers want to discontinue smoking, believe that continuing to smoke will further harm their

health, and plan to quit smoking in the coming year.

As with younger smokers, the effort to stop smoking is often not successful: 69% of the current elderly smokers surveyed by Stoller and Pollow (1994) had tried to quit. Interventions designed to assist older smokers must include techniques designed for chronic, heavy users, emphasizing help to replace lifelong habits and overcome chronic addiction to nicotine. Social support against likely peer pressures and social network approval of smoking also are indicated. Since most older smokers are in regular contact with physicians, there is a clear role for physicians in giving advice about the health problems associated with continuing to smoke and the very realizable benefits of quitting. Orleans and her associates (1991) found that, although three-quarters of their survey respondents had seen a physician in the past year, just 42% had received medical advice to stop smoking, despite the fact that almost half reported smoking-related symptoms or illnesses. Finally, although the literature reviewed here did not reference other forms of tobacco use (such as chewing or snuff), many of the same concerns and considerations iterated here for smoking would apply to these types of tobacco use as well.

PRESCRIPTION AND PROPRIETARY MEDICINES

Use of prescribed and proprietary or over the counter medicines by seniors comprises a significant proportion of all such use. Persons aged 65 and older make up about 10% of the population and receive from 25% to 30% of all prescriptions (Dufour et al. 1992). Approximately one-third of all expenditures for medications by the elderly go for over the counter medicines, used by over two-thirds of those aged 60 and above (Coons et al. 1988).

The rationale for action to prevent misuse of these medicines does not rest on their magnitude alone. Many of the illnesses for which proprietary and non-prescription medications are used become more prevalent with age (Coons et al. 1988). This use combines with the increased likelihood of chronic illness and need for long-term medical and medicinal interventions to further increase the risks of misuse. The elderly are no more likely than younger patients to fully follow their prescribed medication regimen, and particularly likely to underuse essential drugs (Gomberg 1990).

Nor are the elderly solely responsible for their own substance misuse; physicians also play a major role. Excessive rates of use of prescription medications and especially of psychoactive drugs among the elderly in nursing homes have long been recognized as a problem (Thomas 1979; Wilcox et al. 1994). A recent report in the *Journal of the American Medical Association* (July 27, 1994) received widespread attention for its presentation of data showing that nearly a quarter of elderly Americans had been prescribed one or more medications counter-indicated for use by persons in their age group (Wilcox et al. 1994). The magnitude of this inappropriate use was particularly notable given what Wilcox and his associates identified as a “widely acknowledged” and “publicized” problem, one described by another commentator as producing an “avalanche of literature” (Whittington 1988). The

journal editorial accompanying this most recent revelation of the numbers of older patients affected by prescription misuse identified even this level as just the “tip of the iceberg” (Gurwitz 1994).

PHYSIOLOGICAL VULNERABILITY

Lamy (1988) provides an extensive listing of the multiple ways in which the elderly are more vulnerable to experiencing problems with alcohol and drugs than younger persons as a result of normal aging. The physiological factor most often identified by others as well is the lowering of the ratio of lean body weight to fatty tissue as one ages (Glen et al. 1986). This reduces the speed of absorption of water soluble drugs (such as alcohol), with the consequence that a given dose of these drugs will have a greater and more long lasting effect than for a younger person of comparable body weight. It is not the case that these drugs have a different effect on the aging body; rather, the physical environment in which drug action occurs has been altered, and it is this that makes the difference. Posited changes with age in the way alcohol affects the central nervous system have not been conclusive (Dufour et al. 1992).

Lamy (1988) iterates the several changes that occur in different organs and bodily functions - the kidneys, the liver, the brain, the cardiovascular system - as an inevitable part of the aging process. These changes either increase sensitivity to certain drug effects and/or reduce the efficiency of processing and elimination. The result, as above, is an increased effect for a given dose. The diseases that are typically part of aging are likely to have additional effects, slowing down or otherwise altering drug action (Glynn et al. 1986).

There is, in addition, the problem of polypharmacy, or the interactions of several drugs. This is a problem particularly likely when, as is true for many elderly, the individual is taking medications for several diseases or conditions. One study found that 35% of all office visits by the elderly result in the prescription of three or more drugs, a situation with a strong risk for adverse reactions (German and Burton 1989). It is estimated that one half of all drugs taken by the elderly can interact with alcohol, and such interactions are especially associated with those drugs the elderly take most frequently (Lamy 1988). Over the counter preparations, many of which contain alcohol and which are sometimes not viewed as “drugs” by their users are certainly a part of these adverse interactions (Coons et al. 1988).

Lamy (1988) distinguishes two types of drug/alcohol interactions: pharmacokinetic and pharmacodynamic. Pharmacokinetic interactions are related to the body’s disposition of a drug. In these, the metabolism of alcohol may be inhibited by other drugs or alcohol may increase or decrease the absorption of another drug or alter its intensity or duration. There also are pharmacodynamic interactions, those related to the action of a drug on the body. Alcohol may potentiate the effects of many drugs, a particular issue for psychotropic medications and sedatives, both of which are used by large numbers of older persons. Psychotropic drug use by seniors has been repeatedly demonstrated to be

associated with physical and central nervous system side effects, including reduced mental function, sleep disturbances and sleep apnea, and injuries such as hip fractures because of falls: there is as well a high risk of addiction (Ried et al. 1990).

III. PREVALENCE -- ALCOHOL

Measures of prevalence of alcohol use by persons of different ages come from two types of studies. The first of these is the most common because of relative ease of administration and costs, and this is what is known as cross-sectional data. In studies of this type, information is collected at a single point in time from various age groups. Such data works well to indicate levels of present use, and the more methodologically sophisticated the study, and the greater the reliability and validity of its measures, the more accurate are the prevalence estimates. These data cannot, however, show us whether or not these rates have remained the same throughout respondents' life spans, nor can they be interpreted in such a way to control for changes in society, attitudes, and drinking practices over time.

This makes cross-sectional data a poor means to identify effects of aging on drinking, and also a poor basis on its own to predict future drinking rates. To do these one needs prospective or longitudinal studies that track individuals over time. These studies are relatively rare because of the greater difficulties associated with their administration and their greater costs. To further complicate the informational base, in both types of studies the results may be influenced in various ways by the study sites, the sources of the sample and sample selection methods, and the measures used to assess alcohol and other drug use.

Until recently, information about the extent of the alcohol problem among elderly Americans suggested only that the elderly drink less and have less severe drinking-related problems than younger persons. These cross-sectional data showed that the percentage reporting abstinence from alcohol increased with age, information sometimes taken to indicate that one was likely to reduce and even cease alcohol consumption with increasing age (Gordis 1988). Fortunately for the purposes of this review, rigorous cross-sectional data from a national sample and the results of an extended large longitudinal study have become available within the past ten years. There is now much more complete information about the prevalence and persistence of drinking with age.

ALCOHOL -- CROSS-SECTIONAL DATA

The most reliable data on the general prevalence of alcohol problems among the elderly come from the epidemiologic catchment area (ECA) study carried out in the early 1980's. This study used a large sample of respondents in selected areas across the country, with a sufficient sample of older respondents to make judgments about the elderly as well as younger age groups. Alcohol abuse and alcohol dependence were identified according to the established medical criteria for these disorders

laid out in DSM-III-R.

It should be acknowledged that there are some questions about the fit of these criteria among elderly populations because of reporting issues, changes in life circumstances, and physiological changes and deficits among the elderly (Graham 1986). Miller et al. (1991) confirm that the usual measures of tolerance and dependence are particularly poor indicators of alcohol problems in the elderly, as are consequences of use. Older problem drinkers tend not to develop dramatic signs of tolerance or dependence, and are often not in a position to accrue adverse work or legal consequences of their use. Nonetheless, the DSM-III-R criteria remain the clinical standard for alcohol problem diagnosis, and continue as such in the revised criteria put in place this year.

The ECA study reported several prevalence rates of DSM-III-R alcohol abuse and dependence. The ECA lifetime prevalence of alcohol abuse/dependence was 14% for men aged 65 and older and 1.5% for women. The rates for younger age groups were consistently higher, standing at 27% for males 18 to 29 and 7% for females, 28% and 6%, respectively, for those aged 30 to 44, and 21% and 3% for persons aged 45 to 64 years old (Nfiller et al. 1991). Overall, the ECA data showed that 6% of the study sample had met these criteria for dependence or abuse within the past year and 13.5% had met it in their lifetime (Skinner 1990). For those aged 60 and over, the six-month rates of abuse/dependence were 1.4% to 3.7%, varying by the site of the study data (Adams et al. 1993). The rates showed considerable difference by sex, ranging between 1.9% and 4.6% at the different sites for elderly men and less than 1% for older women (Warheit and Auth 1988). The average age of onset of dependence for those 60 and older was 31 for males and 41 for females (Miller et al. 1991).

Earlier cross-sectional studies have yielded differing results depending on the population studied, how the sample was selected, and how alcohol abuse was defined. They have, however, shown the same pattern of difference in prevalence by age and by sex. Prior national studies using probability samples have found that about half of those aged 60 or older are abstainers and approximately 5% to 6% are classed as heavy drinkers (Barnes 1982).

Some general community based studies looking specifically at elderly alcohol use have shown prevalence rates of alcohol problems comparable to those in the ECA. Guttman (1978) found that 1.1% of his large community sample reported problems with alcohol, all of whom had sought treatment. Other studies have found considerably higher levels of problem drinking. Akers et al. (1989) also found the reports of "excessive" drinking to be very low (1.1%) in their retirement-community sample, but 9.2% of the respondents reported their consumption as being heavy (six to eleven drinks once or twice a week).

In a later report on this study, Akers and La Greca (1991) note that 6% of their respondents had been heavy drinkers in the previous year (10% of those who were drinkers). Further, about 3.1% (6% of the drinkers) had experienced one or more alcohol related problems within that same time frame.

Thirty-eight percent of the seniors in this study were abstainers, and of those who were drinkers, 49% drank lightly. In another study of three retirement communities in different states, Alexander and Duff (1988) found that 46% of the residents were regular drinkers. The overall distribution was 22% abstainers, 33% occasional drinkers, 36% moderate drinkers, and 20% heavy drinkers (two or more per day).

Rates for heavy drinking and drinking problems among older persons are highest in studies using samples from medical settings. Atkinson (1984) reports that these rates range from 5% to 60% among patients admitted to acute medical wards, depending on the setting. Elderly patients with alcohol problems also present for assistance at emergency rooms. Adams et al. (1992) found that 14% of those aged 65 and older using a large, urban, hospital emergency room during a two month period self-reported having had drinking problems during the past year. Adams et al. (1993) further report the results of a national study of 1993 Medicare claims for those 65 and older with an alcohol-specific primary or secondary diagnosis. Total claims were 48.2 per 10,000 population, ranging from 54.7 for males and 14.8 for females. The proportion of claims showed considerable geographic variation. When this was adjusted by age, race, and sex for each state, Washington was in the top quartile of states, indicating a rate greater than 38 per 10,000.

Prevalence rates also are high among elderly seeking services for mental health problems. Atkinson (1984) identified rates from 3% to 17% in psychiatric clinics and 23% to 44% in acute psychiatric wards. Speer et al. (1991) estimate that 6.4% of those in Florida's public geriatric mental health outpatient centers are psychiatric clients who also abuse substances. Closer to home, 9.6% of the community-dwelling clients in Spokane's elderly services system were found to have a DSM-III-R diagnosis of dependence (3.6%) or abuse (6%) (Jenks and Rashko 1990).

There is no question but that rates of alcohol problems identified in medical settings are below actual prevalence and needs for attention (Miler et al. 1991). In the Medicare study reported above, Adams et al. (1993) note that the medical record is believed to identify a maximum of 50% of those who are alcoholics in comparison with structured interviews, and thus their figures, although high, are certainly an underestimate. In their emergency room study, Adams and her fellow researchers found that physicians detected only 21% of those who had identifiable alcohol problems based on interview and clinical indicators (1992). Atkinson (1984) estimates that 20% or more of the hospitalized elderly may have a missed alcohol problem diagnosis, a situation he attributes to their presentation with relatively non-specific diagnoses. He points out that there are errors in the other direction as well, citing a study finding that 57% of the elderly referred specifically for an alcohol or drug problem actually had a different primary problem.

The elderly also are thought to be under-represented in the alcohol treatment system. Shif (1988) estimates that only 15% of the alcoholics over the age of 60 are receiving treatment. This proportion of non-treatment is not very different from the estimates given for the percentage of alcoholics

obtaining treatment across all age groups. Skinner (1990) reports that only about 20% of those who are alcoholic ever seek treatment; data from the ECA study revealed that just 19% had even talked to a physician about their drinking problem. There are reported rates of under-diagnosis of alcohol problems among the general adult population in hospital and psychiatric settings as well. Recent statistics compiled in a government survey of patients in public and private treatment centers show that those aged 65 and over made up just 1% of the total treatment population (NCADD 1994). This is below what would be expected based on population proportion and the prevalence rates found in the ECA study, and suggests that the elderly may be even less likely to use alcohol treatment than younger persons.

ALCOHOL -- LONGITUDINAL DATA

The largest recent source of longitudinal prevalence data on alcohol use comes from the Normative Aging study. This study involved approximately 1500 men, veterans aged 28 to 87, followed from 1973 to 1982 (Glynn et al. 1986). Among respondents to both the initial and the follow-up surveys, there was almost no change in average alcohol consumption during the nine years between data collection. Further, among those whose consumption levels changed, more decreased than increased their drinking. Men in their 40's and 50's were particularly consistent in their drinking habits. The researchers conclude that "Longitudinal data from the current study do not support the finding from previous cross-sectional studies that aging modifies drinking behaviors (1988:101)."

The best predictor of change in consumption in this study was the amount consumed in 1973, with higher initial drinking levels associated with declines in consumption, a finding attributed to regression to the mean. If a man changed his drinking level during the study period, he was more likely to decrease than increase use. Those under 40 or over 59 were much more likely to decrease than increase drinking levels during the nine years, those 40- 59 were about equally likely to do either - 57% showed stability over time (Glynn et al. 1986).

Nine percent of the study participants aged 50 to 59 in 1982 reported having at least one drinking problem; 4% of those aged 60 or older had a drinking-related problem (Moos and Finney 1986). While no age group showed a decline in the number of drinkers with problems, there was a clear trend for older men to report fewer problems at both times. Older men drinking without problematic consequences in 1973 also were more likely than younger men to maintain this level of problem-free drinking: of those initially over 60 reporting no problems at 1973, 2% had problems in 1982; of those 50-59 in 1973, 6% indicated drinking-related problems in 1982; problems were reported by 8% of those 40- 49- and by 12% of those initially under 40 (Glynn et al. 1988).

Stall (1987) also found stability in alcohol use over time in a smaller scale but longer-term (19 years) longitudinal study of men in a California city. Study participants ranged in age from 49 to 88 for the follow-up interviews, but the majority were aged 60 or older. The most stable drinkers were those

whose initial use pattern was light, a group that comprised more than half the study sample. The pattern of the moderate drinkers was most erratic: about one-third decreased their drinking, 43% stayed the same, and 24% increased consumption. Among the study's heaviest drinkers, two-thirds decreased their drinking with age, a decrease that is even more marked when quantity as well as frequency is taken into account. Stall concludes that the image of stability presented by these data is largely due to the preponderance of light drinkers to begin with - persons with other drinking patterns were more likely to change than to remain stable, and these changes were most typically towards reduced use.

Information from the ECA and other cross-sectional studies and that from the Normative Aging and other longitudinal studies nonetheless justifies concerns about increasing prevalence as future cohorts reach old age. Glynn and his colleagues warn of the "potentially serious public health consequences if older men today are drinking more than men the same age a decade ago (1986:114)." Maddox and his associates (1986) demonstrate these trends by organizing the ECA data by birth cohort according to the dates individuals reported symptoms first diagnosable as alcohol problems. Older cohorts experienced problems with alcohol when younger at a rate well below that of younger cohorts. This supports the conclusion that low alcohol problem prevalence among today's seniors is at least partly a cohort effect, and one can indeed expect higher rates among elderly in the future. These predictions are softened somewhat by the findings from longitudinal studies that a percentage of drinkers are also likely to decrease their use with entry into old age. This trend also shows up in the ECA data, with men from the cohort aged 55-64 showing a decline in problems from the levels reported ten years previously (Maddox et al. 1986).

LATE ONSET ALCOHOL PROBLEMS

With the above patterns and prevalence, one might well ask what there is to prevent in the way of alcohol problems among the elderly, at least for the near future? The answer is found in characteristics of those seniors who are identified as having definite alcohol abuse problems. These characteristics generally come from studies of clinical populations, typically alcohol treatment, as well as from studies of persons arrested for drinking and driving. In both types of data, there are indications that approximately one-third or more of the elderly with drinking problems developed these problems in old age or have a recurrence of problems after a lengthy interval (Gomberg 1990; Gordis 1988). Drinkers whose problems initially occurred in old age have been labeled "Late Onset" alcoholics. They are contrasted with "Early Onset" alcoholics, individuals whose drinking problems began in young adulthood or earlier and who have survived to old age despite their alcoholism.

There is some debate about the significance of such late onset alcoholism. Some early reports on the phenomenon included as indication of late onset development of drinking problems in middle age, a practice critiqued by Gomberg (1985) as including persons with a 20 year drinking history who can hardly be said to be drinking in response to aging.). Identification of an alcohol problem as being

late onset should include only those who have recently begun drinking heavily and problematically; others who had sporadic problems with heavy drinking in their past that are recurring in old age; and still others whose drinking levels may be moderate but who nonetheless have difficulties associated with drinking due to physical or health problems (Gomberg 1985).

Akers and La Greca (1991) note that the division of older alcoholics into two types is supported by clinical studies but not by survey data on general populations. In fact, survey data reveals that there are some elderly, albeit proportionately few in number, who do increase drinking in old age (Gordis 1988). Given their much shorter alcohol-problem history, late onset alcoholics are further differentiated from their early-onset counterparts as less likely to have alcohol-related health problems or to experience physical withdrawal, with a lower frequency of intoxication, and with more stable emotional, financial, and social situations (Schonfeld and Dupree 1991).

One of the primary distinguishing feature of late onset alcoholism is its apparent development in response to stress, particularly stress connected with aging (Akers and La Greca 1991). Because of this, late onset alcoholics are also known as “reactive” drinkers (Gomberg 1990). Stresses associated with aging also have been linked to heavier drinking among early onset alcoholics and to reduced drinking by elderly with a long standing alcohol problem (Atkinson 1984). As Blazer and his colleagues (1986) point out, the primary feature distinguishing late-onset alcoholics is their initiation of problem drinking as seniors, and this alone predicts most of the differences identified between them and earlier onset elderly alcoholics. Mulford and Fitzgerald found that the late-onset problem drinkers included in their study of DWI offenders would not meet DSM-II or other clinical diagnostic criteria for alcoholism, a factor that may make them easier to treat but also less likely to be identified as in need of treatment. The lowered alcohol tolerance of the aging body may play a role here, making drinking a problem for persons whose consumption levels may be unchanged or relatively moderate.

IV. PREVALENCE -- LICIT AND ILLICIT DRUGS

PRESCRIPTION AND PROPRIETARY MEDICINES

The elderly, who make up some ten percent of the population, use 25% of the nation’s prescribed drugs (Lawson 1993). A 1985 national survey of prescription practices in general medical clinics found that for patients aged 65 and above, at least one drug was prescribed in more than 68% of the office visits (Miller et al. 1991). Even among those classed as “well” in one study reported by Whittington (1988), 71% used prescription drugs and 41% proprietary medications. According to a 1981 report, approximately one-third of all medication expenditures by the elderly were for over the counter drugs, and in the late 1970’s, 40% of those over 60 were reported to use such medicines daily (Coons et al. 1988). Overall, 69% of the elderly were reported to use over the counter medicines compared to 10% of the general population (Baker 1985).

It is entirely appropriate for that segment of the population with a disproportionate level of chronic medical conditions and other health problems to also utilize a disproportionate share of the nation's medical aid, including prescription medicines. Further, most older people can manage their medication use without significant difficulty, seldom use medications in a way other than prescribed, and when they do, usually underuse (Guttman 1978; Whittington 1988). Whittington (1988) characterizes that portion of the elderly population most at risk of difficulties with medications as being sicker, more disabled, living either alone or in an institution, and seeing multiple physicians for different physical or mental problems.

Risks for adverse reactions increase with multiple medications (German and Burton 1989). Risks of misuse also increase, and these in turn contribute to adverse drug reactions. According to statistics cited by Forster et al. (1993), the average elderly person uses between two to seven prescription and proprietary medicines a year, as much as two and one-half times the use rate of other age groups. Lamy (1985) is especially critical of the continuation of prescription practices with the elderly that set dosage levels the same as for younger persons, despite the knowledge that the elderly differ in response and receptivity. He estimates that about 20% of elderly patients being hospitalized show symptoms from the effects of prescription drugs, and the incidence of drug interactions and probability of adverse effects goes up with the rise in the number of drugs used. Older people suffer two to five times the frequency of adverse drug reactions as are experienced by younger populations (Forster et al 1993), and the probability of these reactions occurring further rises when alcohol is used as well. Lamy (1985) contends that most of these reactions are eminently preventable and could be readily eliminated by the physician.

Finally, risks for misuse of medications are heightened by the complexity of medication regimens, multiple diseases and symptoms, and a corresponding use of multiple physicians and thus multiple prescribers (Shimp and Ascione 1988). These factors place a premium on good communication between doctors and patients, but the sensory and cognitive impairments also common with age increase the prospects of misunderstanding.

The elderly also contribute to their prospects of experiencing an adverse drug reaction by not fully following their prescribed medication regimen, with estimates of non-compliance with the regimen among this group ranging from 40% to 75% (Lipton 1978). More recently, German and Burton (1989) estimate that among those aged 65 and older, non-compliance in the form of taking more or less of a drug than prescribed is about 20% versus 24% for the overall population. The elderly however, take more drugs and have more conditions requiring drug therapy, a situation that makes medication misuse particularly problematic. Studies show that about 10% of hospital admissions result from poor patient compliance with drug regimens, and geriatric patients are particularly at risk (Lipton 1978).

A recent national examination of prescription records included in the 1987 National Medical Expenditure study revealed that prescription drug problems are frequently created by the prescriber's selection of specific drugs (Wilcox et al. 1994). The study sample included persons aged 65 and older living in the community. Nearly one-quarter, 23.5% received at least one drug that had been contraindicated for use by the elderly on the basis of a widely accepted set of prescribing criteria for drug use by seniors. Any use of these drugs put elderly patients at risk of possible adverse drug effects, including sedation and cognitive impairment.

About half the drugs on the list were psychoactive, including sedative/hypnotics, antidepressants, and analgesics. The problems posed were further compounded for 20.4% of the sample who received prescriptions for two or more such drugs. An article about the Wilcox report appeared in the August 8 issue of Time magazine, and added that other drugs not on the proscribed list also can cause problems for elderly recipients because of dosage and length of use. Other popular press reports on the article's publication identify some disagreement in the medical community about what drugs are actually inappropriate for the elderly, thereby somewhat moderating the impact of the study's findings.

The proportion of prescriptions for psychoactive medicines, estimated to make up as much as one-quarter of the drugs prescribed to seniors, presents an especial problem for potential misuse (Lawson 1993). As many as 50% of the community-living elderly may receive prescriptions for anti-anxiety drugs and 10% to 20% for anti-depressants (Lamy 1988). Baker (1988) cites one study in which almost one-third of the elderly patients hospitalized for medical or surgical illnesses in a general hospital received at least one psychotropic drug, while Gomberg (1990) cites a finding that half of the patients receiving psychoactive drugs reported that they could not carry out regular daily activities without the medication.

German and Burton (1989) report on the results of a community study in which 23% of those 65 or older had at least one prescription for a psychotropic medication, a rate higher than that for any other age group. Miller and his colleagues (1991) also found the use of psychoactives by the elderly to be disproportionate to their numbers: 26% of the prescriptions for benzodiazepines to treat anxiety and 40% of the prescribed hypnotics to aid with sleep were given to patients aged 65 and older. A study of psychotropic prescription use in a FMO located in Washington state found that over 30% of the patients 65 or older had obtained at least one psychoactive drug during the study's two year time frame (Ried et al. 1990).

Use of psychotropic medicines may continue for lengthy periods, a practice further increasing risks of adverse effects. In the Washington study referenced above, about 60% of the patients with a prescription one year also had used psychoactive medications the preceding year, with the highest prevalence of extended use (10 years or longer) found among patients 65 and older (Ried et al. 1990). The researchers point out that, while short term use of psychotropic drugs is frequently medi-

cally indicated, long term use has been seriously questioned.

Use of psychoactive and multiple prescription medications is generally highest among elderly living in nursing homes, a place increasingly being used as the residence for seniors who are also chronically mentally ill: as many as 43% to 55% of nursing home patients are prescribed one or more psychoactive drugs (Baker 1985). One report found that almost two-thirds of the nursing home patients whose files were reviewed indicated significant drug related problems (Cooper 1988). Wilcox and his colleagues (1994) report that 21% of nursing home patients were identified as receiving the drugs contraindicated on the list referenced previously in a one month period, and, when dosage and frequency were taken into account, the percentage of inappropriate use rose to 40%.

There also is some indication that nursing home residents are medicated not for medical reasons but to improve patient management. The more active and least impaired patients are, according to Baker (1985) those who receive the most medication for behavioral problems. Female nursing home patients are more likely than males to receive tranquilizers, but men who have impaired mental status, who exhibit unfriendly behavior, and who are perceived as a threat to the staff receive most of all

Glantz (1985) considers that since large-scale efforts have been made to educate physicians about the special needs and medication problems of the elderly, it can therefore be assumed that any given physician will have been advised that special care and information is necessary in order to appropriately and safely prescribe for the elderly. She concludes that, unless there is information to the contrary, the types of prescribing described above constitute a form of abuse.

ILLICIT DRUGS

Illicit drug use among the elderly is generally only reported among aging criminals according to a review by Lawson (1993). Using data from national household surveys, Miller and his associates (1991) identify lifetime prevalence rates for use of illegal drugs among those 60 or older to be less than one percent. Although small percentages of older people may occasionally use illicit drugs such as marijuana, hashish or even cocaine in social situations (Gomberg 1990), most knowledge about elderly illicit use is among identified addicts, primarily heroin addicts. There is a small population of elderly opiate addicts, but, as is true for alcohol, most addicts do not reduce or stop use (“mature out”) as they age. Studies show that only about 22% of an identified group of opiate addicts stops use with age, while the majority adapt and conceal their use as they become older (Glantz 1985).

Given the demographics of the current addict and methadone treatment populations, the number of elderly addicts is considered likely to increase over the next several decades (Petersen 1988). Because older opiate users often switch to more readily available prescription drugs or use these drugs or alcohol as substitutes for illicit drugs, the likely increase in their numbers presents an issue for

prevention (Lawson 1993)

Among the elderly as among younger persons, psychoactive drugs are the prescription medications most subject to abuse by their users, but as with other illicit use, prevalence rates are considered to be minuscule. Miller and his associates (1991) report that abuse of pharmaceuticals is most likely to occur among seniors who have other medical or mental health problems. Among a group of elderly patients in an inpatient substance abuse treatment clinic, 8% were dependent on drugs (Gomberg 1990). Similarly, the geriatric clients served through Spokane's elderly services system included 5% who were prescription drug abusers. Most of these individuals had a history of prior psychiatric hospitalization and 60% were currently or had previously abused alcohol (Jenks and Rashko 1990). Indeed, most elderly who are identified with problems of drug dependency are likely to also have alcohol problems. Miller et al. (1991) find that it is rare for a person who does not meet lifetime criteria for alcohol dependence to be diagnosed with drug dependence.

Drug dependence and abuse among the elderly is frequently overlooked by clinicians, and even when it is recognized, it is seldom specifically labeled as such (Whitcup and Miler 1987). Although this probably is with the intention of not stigmatizing the patient, failure to properly identify the problem can put the patient at medical risk. Whitcup and Miller (1987) reviewed the charts of inpatient psychiatric patients aged 65 and older. They found that 12% of the admissions to the ward were elderly and 21% of these could be diagnosed as chemically dependent according to their charts. Less than half of those recognized as chemically dependent by the researchers were detoxified, even though all had at least some symptoms indicating their dependence. Persons with an alcohol dependency were much more likely to receive recognition and detoxification, and they conclude that there was more sensitivity in this hospital setting to alcohol problems among seniors than to those involving drugs.

ALCOHOL AND DRUG COMBINATIONS

It was previously noted that adverse reactions are particularly likely when alcohol and drugs are used together. There is some indication that a significant portion of the elderly combine alcohol and prescription and/or over the counter drugs (Forster et al. 1993). Forster and his colleagues report data from a sample of elderly community living residents managing their own health. One-quarter of the respondents to their survey were identified as being at risk of at least one adverse drug reaction, with 15% at risk of experiencing more than one such reaction because of their coincident use of drugs and alcohol. Interestingly, the most common risks (present for 19% of the sample) were those due to combining proprietary medications for pain with alcohol.

An earlier community-based survey (Guttman 1978) found similar patterns and higher percentages. Guttman reports that all but 5% of his elderly respondents reported use of alcohol, prescription medications, or proprietary medications either separately or in some combination: 38% were at high

risk of adverse reactions due to their concurrent use of alcohol and prescription or proprietary medicines or all three. Guttman found that the most disabled users in his sample did not use any alcohol, whereas the least disabled were more likely to use both over the counter medicines and alcohol but not prescription drugs.

V. DEMOGRAPHIC AND SOCIOECONOMIC RELATIONSHIPS

The correlations found between substance abuse and misuse problems and demographic and socioeconomic factors are reflective not just of a particular life stage, such as being elderly, but are part of the individual's life course. The prospects of substance abuse problems after age 65 are influenced not only by the events and circumstances of the preceding 64 years but also by broad social forces. Social class, social support, and access to medical care emerge as the most important structural factors affecting the health status of the elderly (Estes and Rundall 1992). The findings iterated below in which substance abuse problems are correlated with age, sex, and other socioeconomic variables are also associated with living in a stratified society. Vogt (1992) reminds us that socioeconomic status is related to more than simply access to adequate nutrition, shelter, and medical care. It also is associated with the stability of one's personal and social environment, and the options available for coping with problems and accessing a social network for help when needed. These later factors will be discussed separately in the section following this one. All of these do not, however, affect people separately, but rather as part of a complex, and these effects do not emerge from nowhere at age sixty-five.

SEX

Alcohol:

Elderly men, like men in other age groups, are much more likely than older females to drink and to drink heavily. The ECA study identified the prevalence of alcohol abuse/dependence among males aged 60 and older as ranging from 1.4% to 3.7% compared to less than 1% among females (Adams et al. 1993). Lifetime prevalence for alcoholic disorders among those 65 and more revealed even more pronounced differences by sex: 14% for men and 1.5% for women (Nfiller et al. 1991).

Clinical data suggest the same pattern. In their study of emergency room admissions for alcohol problems, Adams and her associates (1992) found a higher percentage of males. A study of "late-middle-aged" (ages 55-65) substance abusers seeking treatment found that females had less severe problems and lower consumption than males (Brennan et al. (1993). The women abusers also were more likely to be late-onset drinkers (46% versus 28% males), and these were also more likely to still be abstinent at a one year follow-up than were males or women with longer drinking histories. Brennan and her co-researchers also found that the females in the study used more psychoactive drugs, and were more depressed than males.

While most of the studies referenced in this review thus far did not report their findings according to sex or used only elderly males in their samples, the few community studies that do separate out female drinking from that of males follow this same general pattern. In settings where regular drinking is more socially normative, however, the proportion of females to males who drink does increase. Alexander and Duff (1988), reporting the findings of a study in a retirement community, found that 60% of the men and 39% of the women were regular drinkers. The heaviest drinkers in this group of regular drinkers were males.

A community-based survey in New Zealand looked at drinking patterns and reported changes over time for seniors aged 70 or older (Busby et al. 1988). These researchers also found that men were more likely than women to drink more often and in greater quantities. Comparing their drinking patterns presently with those from middle age, 60% of the men and 30% of the women reported a decrease in use. Eleven percent of the women, compared to 7.4% of the men, reported increasing use in old age. Many of these women attributed their increased drinking to changes in societal attitudes towards females and alcohol use. These same altered societal views in the United States are cited by Atkinson (1984) as the basis for his expectation that the next thirty years will yield an increased proportion of elderly females with alcohol problems.

Willenbring and Spring, Jr. (1988) add a note of additional caution to the interpretation of the small proportion of elderly female alcoholics. Although alcohol problems are more numerous among men, because elderly women so greatly outnumber older men, the physician or treatment provider may be equally likely to see either sex presenting with alcohol problems. There is some evidence (Whitcup and Miller 1987) that women are less likely to have their substance abuse problems diagnosed than men, a finding at least partly due to their greater likelihood of abusing pharmaceuticals rather than alcohol.

For men, one of the key social variables associated with alcohol problems has been the status of veteran. There seems no particular indication that veteran's status is disproportionately associated with drinking problems among older men, a consequence perhaps of the cohort's typical participation in the services during the second world war. Many of the studies reported here have been conducted with male veterans through contact with medical facilities under the Veterans Administration, and thus military service is a pre-condition of study participation in these cases.

Prescription and Proprietary Drugs:

The imbalance between the sexes shifts with misuse of prescription drugs. Women are estimated to receive from two to two and half times the prescriptions that are obtained by men (Lamy 1985). Elderly women are disproportionately likely to be prescribed psychoactive medications (German and Burton 1989). The National Center for Health Statistics conducted a survey of National Ambulatory Medical Care in 1983 (Lipton 1988). Data from that survey show more psychotropic drug use for

females from the age of 45 onward. For those aged 45 to 64, female use of psychotropics was about one-third higher than that of males- for persons aged 65 and older, use by females was almost 160% of that by males.

Women are thought to be at greater risk of drug misuse than men not because they are more likely to be non-compliant with their medication regimens, but because of their higher levels of use, and especially because of their use of psychotropics. This itself may be due largely to women's greater use of general health care than men and their greater willingness to express symptoms of emotional distress, but Kail (1989) also questions whether there may not also be sex bias in prescribing practices. Whatever the reason, women use psychoactive medications almost exclusively in health care rather than recreational contexts. Kail reports that females use more proprietary medicines than men do as well, with the highest use of such over the counter medications among older white females with relatively low education and income.

The greater risks elderly females face for encountering problems with prescription medications received some recent confirmation. The 1994 report on the prescribing of drugs contraindicated for the elderly found that those most likely to be given these were older women (Wilcox et al. 1994). More positively, women are more likely than men to follow most health enhancing behaviors, including those related to moderate use of alcohol and tobacco (Stoller and Pollow 1994).

RACE AND ETHNICITY

Akers and La Greca (1991) advise that research on substance use by the elderly has not yet determined confirmed and replicated relationships between use and various important socioeconomic variables. The strongest evidence, iterated above, is for differences by sex. There is very little information about variation in use by different racial and ethnic groups.

There are some general findings that might relate to this issue. First, groups with high rates of alcohol or other substance abuse as well as an elevated incidence of certain diseases and deaths at younger ages are likely to have comparatively few problems as seniors (Yee and Weaver 1994). This appears to be the case for Native Americans and Blacks or African Americans. The reason is premature mortality, and among Blacks, this has been cited as the reason for a cross-over effect among the elderly - morbidity and mortality rates for Blacks are above those for Caucasians until older ages, when the pattern reverses, with elderly Blacks generally healthier than other seniors (Kail 1989).

Minority elderly are more likely than other seniors to follow traditional medical practices, to utilize herbal and folk medicines, and to seek the advice of traditional health practitioners. When this use is combined with drugs and regimens from Western medicine, whether prescription or over the counter, there may be adverse reactions. These reactions become more likely when language and cultural differences are inadequately recognized, an outcome all too typical for many minority seniors (Kail

1989).

AGE

The elderly are not a uniform group, with the differences between the young-old and the old-old identified early in this report. It is not surprising, given the trend towards decreased drinking with age, that there should also be differences within the senior age range, and that these differences are that substance use and abuse are highest for those who are younger. Warheit and Auth (1986) conclude that age is the best predictor of alcohol problems in the ECA study sample. Those members of the study who were elderly and who were currently alcoholic were more likely to fall into the 60 to 74 age range than 75 and older (Blazer et al. 1986). Community-based studies report similar findings. The heaviest drinkers in the retirement communities studied by Alexander and Duff (1988) were young-old males: 41% of those under the median age (76) were heavy drinkers compared to 26% of those above this age. Akers et al. (1989) also found those doing the most frequent and the heaviest drinking were the younger old.

Again, the misuse of prescription drugs reverses these findings. With the number and severity of chronic medical problems likely to increase with age, it is the very old who are most at risk of multiple pathology, and thus also most at risk of polymedicine and its possible adverse effects (Lamy 1985). It is these “old-old” who comprise the segment of the United States population with the projected largest proportionate population increase (Estes and Rundall 1992).

EDUCATION, INCOME, MARITAL STATUS AND RELIGION

There are three major socioeconomic correlates of current alcohol problems among the elderly, according to data from the ECA study. These are marital status, education, and income (Gomberg 1990). For older males, men who were separated or divorced had higher rates than other groups, with marital disruption apparently more significant than widowhood, which in turn, was more likely to be linked to alcoholism than being married. For females, alcohol problems were associated with being married, a marriage, according to Brennan et al. (1993), which is most likely to be to a male alcoholic. The rates of abuse or dependence also were higher among those with less than a high school education and higher among those with lower household incomes (Gomberg 1990). It is notable that the ECA study showed that these connections between alcoholism and marital status, education, and income were similar regardless of age (Hozer III et al. 1986).

The same socioeconomic factors also are associated with use of psychotropic medicines by the elderly. In the report on prescribing of contraindicated drugs cited previously (Wilcox et al. 1994), seniors with low incomes - indicated by Medicaid coverage - were most likely to be prescribed the inappropriate drugs. The National Medicare Expenditure Study found that prescriptions for psychotropic drugs were most likely for those who were widowed, with low income, and with low educa-

tional levels (German and Burton 1989) Income also is identified as a factor contributing to more general medication misuse. Seniors on fixed incomes may deal with the financial burdens and high costs of health care by underusing medicines (Shimp and Ascione 1988). They may also attempt to substitute for higher priced prescription drugs with lower cost but not equivalent proprietary drugs. Guttman's 1978 survey of the use of both classes of drugs and alcohol found that seniors reporting alcohol use tended to have higher incomes; lower income respondents did not drink.

Despite these correlations, some of the heaviest drinking among seniors has been identified in community studies of relatively affluent and well-educated elderly. Alexander and Duff (1988) found that married men were the heaviest drinkers in their study of middle class retirement communities; Akers et al. (1989) report that their community survey indicated that the heaviest elderly drinkers were male, better educated, and with higher incomes than those with lower consumption. Higher income among the elderly also has been found to be associated with the practice of preventative health behaviors, while poor seniors are twice as likely as those with moderate or high incomes to experience problems with health.

Religion emerges as a variable in three studies, all community-based. Stall (1987) finds that the heaviest drinkers in his sample were either Catholic or had no particular religious affiliation. Alexander and Duff (1988) identified membership in religious denominations that prohibited alcohol use plus the attitude that religion was very important as factors that, in combination, were associated with less likelihood of drinking. Berkman (1985) finds that, in contrast to other group affiliations, church membership increases for elderly women, a characteristic that further accounts for lower rates of drinking problems among elderly women.

VI. SOCIAL AND PSYCHOLOGICAL FACTORS

The convergence of life problems and substance abuse in one person is not proof that one caused the other. This caution has been raised by many researchers attempting to identify correlates and risk factors for populations from adolescents through the elderly. It is repeated specifically for older adults by Gumack and Hoffman (1992), who maintain that abstainers do not develop late life alcohol problems, and the drinkers who do have some previous pattern that predisposes them to the subsequent problem. This preceding problem may be heavier drinking, or styles of coping, or limited social resources, or some mixture of these. Because most older people do not alter the drinking pattern they have followed throughout their adult lives, those who do so must be responding to some different stresses than are typical, or must be reacting to these typical stresses in a different way.

STRESS

Atkinson (1984) reminds us that stress and losses are encountered by everyone in time, and for most, they do not lead to the development of a substance abuse problem. He points out that the results from the research on reactive drinking are inconclusive, with the same factors identified as contributing to

increased drinking also those cited as contributing to decreased use. It is not that stress does not lead to reactive steps such as problematic drinking or drug use in certain persons. It is rather that the elderly may be even less likely and certainly are no more likely than younger cohorts to react in such a way (Berkman 1985).

Stall (1987) found this to be the case in his longitudinal study, and found also that these same factors are cited as reasons for maintaining a given pattern of drinking over time. He concludes that it is not the occurrence of specific events that means so much in regard to changes in drinking patterns, but rather how these events are integrated with the individual's life history. Both social identity and drinking history are key aspects of how typically experienced life events affect alcohol use.

Vogt (1992) points out further that all life events and ongoing stressors are not the same to those who experience them, and the tendency to group these together in research studies is a mistake. He cites studies that discriminate by type of stress: social supports moderate some crises but seem to exacerbate others and have no effect on yet other stressors. Specific social support components seem tied to different outcomes, with no general link.

The overall conclusion about the association between life stress and drinking is that life stress is neither a necessary nor a sufficient condition for either increased or decreased problem drinking, but rather part of a set of complex circumstances that might influence drinking (Moos and Finney 1986). Other factors are likely to be involved in responses to stress, and these include sociodemographic characteristics such as social status, contextual factors and the presence or absence of chronic stressors and social network supports, and personal resources, including self esteem and coping skills. Reactive drinking, according to Mishara (1988), may be determined by how strongly the losses experienced were linked to self esteem and by the availability of alternate sources of self esteem. He further notes that the choice of alcohol as a means to adapt to loss is related to cultural beliefs about drinking and social supports for doing so. There also are practical considerations of cost and access.

Brennan and Moos (1990) designed their study of community-dwelling seniors, aged 55 to 65, to identify some of these complex connections. Their sample was drawn from individuals who had recently used a general medical center in a large urban community, screened to select only persons who drank regularly (at least weekly) or who had current or former drinking problems. The researchers looked both at acute life events, such as widowhood or retirement, and chronic stressors - a chronic medical or health problem, financial problems, housing and neighborhood issues, and interpersonal relationships and support. They found that older problem drinkers have more stressors than drinkers without problems, these stresses are both acute and ongoing, and they also have fewer social resources. They caution that these associations may serve either as a contributor to problem drinking or a cause of it, or both. The correlations applied regardless of sex or marital status. Helzer et al. (1986) followed-up a sample of older and younger alcoholics who had completed treatment. Their finding: alcohol problems influenced social isolation rather than the reverse.

Kiyak and Brown (1992) find that the elderly as a group utilize a wide range of coping styles and generally retain flexible responses to stress. Contrary to pervasive images of the old as rigid and slow to adapt, elderly persons actually tend to use more adaptive and more mature coping responses than younger persons. Their use of these typically diverse and adaptive coping strategies, however, may be hindered by lack of social resources because of deaths and illness. The possible impediment of coping because of losses in an older person's available social resources and its potential link to increased drinking has also been identified by Brennan and Moos (1990). They found that persons aged 60 and older who had experienced stressful losses were more likely to drink excessively than those who had not. The stresses were buffered by supportive social resources, but the magnitude of losses may overwhelm these.

One community-based study has found that older problem drinkers are not more likely to have suffered stress and social losses than other elderly. Meyers (1985) identifies seniors who are retired, widowed, relatively poor, and generally dissatisfied and pessimistic with life as being significantly more likely to abstain from alcohol than their better-off counterparts. The problem drinkers identified in his survey are distinguishable from other older drinkers only by their greater level of dissatisfaction with the relationships they have with spouse, friends, or family members.

It may be, as suggested by Novak (1985), that late onset drinkers are more likely to have developed inappropriate or unchallenged reserves to try to cope with stress. They also are more likely to be involved in stress tied to situations, as at home or with friendship networks. With an increasing dependence on aid for others, stress in these contexts is more difficult for many seniors to resolve. Moos and Finney (1986) find that older and younger persons are very similar in their capacity to cope when the types of stress are controlled, a finding which suggests that coping deficits among the elderly are most likely to be associated with those who are otherwise sick and disadvantaged.

As illustration, Berkman points to widowhood, a likely event for the elderly. Loss of spouse when old is faced with more cognitive acceptance and is associated with less numbness, denial, and guilt than when younger persons are widowed. There are decreased relative risks associated with bereavement when one is old, in part because events that are more congruent with one's position in the life course are not as stressful (Kiyak and Borson 1992).

CHANGE AND SOCIAL SUPPORTS

Retirement as a specific stressor likely to affect the elderly was examined as part of the ECA study. Moos and Finney (1986) report that retired persons aged 60 and up were no more likely than the elderly still employed to drink heavily or in a problematic manner. The effects of retirement also were reviewed in the Normative Aging Study (Ekerdt et al. 1989). The results of this review were that retirement was not a factor that led to changes in overall consumption patterns, but retirees did show greater variation in their drinking patterns. This variability was in both directions, with retirees

shifting either towards lighter or heavier drinking. These findings as well as those from Stall (1987) suggest that, while retirement alone may not lead to heavier drinking, it opens up a set of circumstances in which lifetime drinking patterns may change. Stall's research, along with other longitudinal studies, shows that these changes are most likely to be towards reduced use, but not always: some retirees increase alcohol consumption.

Stall collected his respondents' reasons for their current drinking practices and why they had changed or not. All respondents typically gave multiple reasons to account for their drinking patterns. The reasons given for decreasing drinking were dominated by social circumstances, especially changed use by those in the retiree's social network, but they also included retirement and less opportunity or reason to drink. Those decreasing use over the 19 years of his study also mentioned concerns for their health or health problems. Social reasons dominated the rationales for changes in drinking among those who increased their use as well. These people cited retirement as giving them more time to drink, and noted the influence of heavier drinking social networks.

The specific social circumstances that accompany retirement residence appear to play a significant role in increased drinking among the elderly. The three retirement communities studied by Alexander and Duff (1988) were places where drinking was part of the life practices of nearly half the residents. These and other researchers attribute these heavier drinking patterns to community norms supporting high alcohol consumption. In the Alexander and Duff study, the more socially isolated were the least likely to drink heavily; the more socially gregarious were both the heaviest drinkers and the persons most likely to have increased drinking since moving to the community

Other studies have used clinical samples of early and late onset alcoholics to compare experiences. Schonfeld and Dupree (1991) looked at such a matched sample from an alcohol treatment program. Both early and late onset elderly alcoholics identified depression, loneliness, and lack of social support as antecedents to their drinking before they entered treatment. The early onset alcoholics also showed the effects of having a long-standing problem, including more frequent intoxication, more signs of physical withdrawal, and more emotional problems. They posit that reduced social support may be due to recent losses for late onset alcoholics, whereas early onset ones may have lost social support as a result of an accrual of many years alienation resulting from drinking.

Berkman (1985) notes that social losses are indeed common in old age, but still, the majority of those over 65 - 79% of the males and 59% of the females - live with other family members or spouse. Widowed persons are more likely to live alone, and more likely to do so than in the past, but for those with living children, most either live with these children or close by. Research also shows few decreases in social contacts with age, and women, regardless of age, have greater ability to maintain social contacts than men throughout life. Higher alcohol problems are associated with widowhood for men but not women, but there are higher rates still for men who are separated or divorced (Moos and Finney 1986). Overall, people who are lacking social and community ties are

more likely to drink heavily than those with more extended and varied contacts, a pattern that is especially evident in men (Berkman 1985).

Moos and Finney (1986) report that reactive alcoholics are more socially competent than early onset alcoholics, and more often point to life stressors as precipitants of their abuse: 71% of a sample of late onset alcohol abusers had stressful life circumstances identified as precipitating cause for their drinking problem compared to 23% of the early-onset drinkers. Still, not all late onset drinkers report that stress precipitated their excessive drinking, and relatively few of the older persons in community surveys drink excessively, even though many have experienced stressors associated with aging. Moos and Finney also found that there is variability among the circumstances reported by early-onset alcoholics, and indication that changed circumstances may either trigger relapse or promote remission. As illustration, Mulford and Fitzgerald (1992) found that first time DWI offenders over age 60 had a relatively more stressful preceding year than younger offenders, reporting deaths and illness among close acquaintances. Elderly offenders also reported more drinking problems when they were young.

Social supports are consistently associated with drinking, but whether these contribute to increased or decreased drinking appears to vary with context. Brennan and Moos (1990) report that, independent of other factors, the elderly with more support from their spouses drank less and had fewer drinking problems; more support from friends was associated with fewer drinking problems, less depression, and more self confidence. Gomberg (1985) sorts this out by noting that seniors living with family and friends are more likely to be social drinkers, whereas those living alone are both more likely to be abstainers and to be heavy drinkers.

LICIT DRUGS

The misuse of prescription and over the counter drugs has not been associated with variables other than those described in the previous section - older age, more physical health problems, and lower income. These also are the factors associated with reduced social supports and higher chronic stress. The prescription of psychoactives is, in itself, a measure of presentation of stress. In the one study reporting on associations of these social and psychological factors with abusive use of prescription drugs, Finlayson (1984) reports that there seems to be no relationship between use and reaction to the stresses of aging. The pattern of abusive use began prior to the occurrence of problems associated with aging: these stresses did appear, nonetheless, to intensify use and use problems among persons with an already established pattern of drug dependence. Finlayson (1984) finds that elderly licit drug abusers tend to be socially and economically stable, with abuse most commonly related to seeking relief from insomnia and pain.

VII. CONSIDERATIONS FOR PREVENTION

The usual distinctions between primary, secondary, and tertiary prevention are a poor fit with the patterns of substance use and health problems already present among seniors. Kane et al. (1985) remind us that among the elderly, a condition may be simultaneously a preventable disease and a problem in its own right, as well as being a precursor or risk factor for another condition. It is thus appropriate to direct prevention efforts with this age group toward management of conditions that have already developed as well as to the primary prevention of new ones (Stoller and Pollow 1994). Intervention in alcohol problems, for example, becomes primary prevention against the development of other health problems, and perhaps the most appropriate strategy for misuse of licit drugs is appropriate medication management of a continuing health problem.

It is important as well to keep in mind that the different social characteristics of the senior population and the variations in the social institutions with which they are involved have a strong influence on health and such health-related behaviors as drinking and smoking (Estes and Runda 1992). Older persons are likely to have different motivations for pursuing healthier behaviors and different barriers to their success at carrying these out depending on the presence or absence of chronic health and disability problems, income, and their access to social and other supports (Stoller and Pollow 1994). Mulford and Fitzgerald (1992) caution that elderly problem drinkers are no less heterogeneous than problem drinkers in general, and any program based on some general or stereotyped condition of old age will likely be inappropriate for at least a significant minority of those needing assistance.

RISK FACTORS

Risk factors are those characteristics that identify an individual or a group of individuals as having an increased likelihood of developing a given problem. Some risk factors are subject to change, such as knowledge, beliefs, or behaviors, whereas others, such as sex or race or genetic predisposition, are fixed (Kane et al. 1985). The counters to risk factors are protective factors, conditions or characteristics that make problem development less likely. The fact that a given risk can be altered or reduced does not necessarily mean that the desired behavioral change will necessarily follow, a caution particularly relevant in the area of substance abuse prevention. The risk factors identified for the substance abuse and misuse problems of the elderly are relatively weak predictors of problem development, and occur in a complex association with other factors not yet identified or isolated. Further, behaviors involving substances whose use is learned and carried out in social contexts have psychological and cultural as well as physiological effects, and are embedded in well-established patterns of social interaction and individual satisfaction (Stoller and Pollow 1994). They are thus extremely resistant to change.

Age:

As a group, the elderly have a variety of risk factors for becoming involved in substance abuse or

misuse as well as numerous protective factors. Age is both. Increasing age is associated with the development of chronic disease, and because this leads to medical interventions and often to complex medication regimens, older persons are inevitably at higher risk for misuse of licit drugs. Older people also are more likely than younger persons to experience social and personal losses due to physical illness and disability, retirement, reductions in income, and the deaths of spouse, friends, and other family members. At the same time, seniors generally have more resiliency and better coping skills to deal with these personal and social losses than do younger persons. Old age also is a protective factor in most regards for the development of alcohol problems, with rates of new problems steadily declining past middle age, and lowering again after the age of 74.

Sex:

The demographic characteristics related to higher rates of involvement in substance abuse problems among seniors include both age and sex. The potential for development of alcohol problems among seniors is highest among males aged 65 to 74 - the so-called young-old. Conversely, the risks for development of problems with misuse of prescription and other legal drugs increase with age (and the likely development of multiple medical problems) and are higher for elderly women than for men. Even as there is no single, homogenous group of elderly, there also is no single set of risk factors for the entire spectrum of potential abuse and misuse problems. Not surprisingly, considerations for prevention are necessarily divergent as well.

Systemic and Societal Factors:

Many of the factors associated with elderly substance abuse and misuse problems are found outside the individual. The health care system in general and its emphasis on acute care rather than chronic disease management establish a situation in which medication misuse is more likely to occur for elderly patients (Lamy 1985). Medical training does not typically emphasize geriatric care, patients with multiple problems receive care from multiple specialists, and medical research seldom includes older subjects. These also contribute to medication misuse. The broader society often stereotypes aging and the elderly in ways that dismiss or disregard indicators of substance abuse and misuse problems and contribute to their misdiagnosis or lack of attention. Physicians, family members, and other care givers and service providers act in accord with these stereotypes, as do the elderly themselves (Kane et al. 1985). The stigma attached to substance abuse combines with these stereotypes to further depress the prospects for the older abuser to seek help or to receive it (Lawson 1993).

Risk Factors Associated with Alcohol Abuse:

The common clinical wisdom and the findings of numerous studies identify two major trigger events for the development of late onset alcoholism or the recurrence of problem drinking: the death of a spouse and retirement (Dunlop et al. 1990; Mishara 1985). These events are, however, typical occurrences of later life, and for most seniors, do not lead to alcohol problems and may even contribute to reduced drinking or abstinence (Mishara 1985). That such events are little threat to the great majority of those experiencing them makes them no less a risk factor for others (Ekerdt et al. 1989).

Meyers (1985) characterizes late life problem drinking as a contingent response, in which different people respond to certain circumstances by increasing drinking while others respond to the same circumstances in more productive ways. Other factors that appear to heighten the prospects of developing late life problems include coping styles that make substance abuse a likely choice, a lack of alternative coping resources or social supports, social isolation and living alone, and previous drinking patterns (Gurnack and Hoffman 1992; Meyers 1985). Poverty and low levels of education contribute to (or result from) these psychological and social disadvantages. The dilemma and the challenge, according to Moos and Finney (1986), is to identify the combinations of factors that seem to be sufficient conditions for making an older person vulnerable to problematic drinking and those that promote resistance to this response.

Risk Factors Associated with Misuse of Licit Drugs:

Multiple medical problems and providers and/or complex medication regimens are the principal direct risk factors for medication misuse. These require coordinated and well-communicated information about medication management, and lack of information or incorrect interpretation or use of information also are significant risk factors associated with medication misuse. Communication problems between the patient and the physician or other caregiver may cause both.

Seniors may withhold information from their physician because they think their symptoms are aspects of normal aging, because they think there is no relief or cure available or they do not know the significance of the symptoms, and because they do not wish to “bother” the physician (Kane et al. 1985). A 1984 national survey of relatively well-educated and middle class persons over aged 50 found that they were often passive about asking questions about their prescription drugs (Gomberg 1990). Concern about side effects or improved health are the major reasons given by this group for not complying with their medication regimens- for less affluent seniors, the costs of medications are the most significant contributor to misuse. Glantz (1985) notes that the elderly themselves might perpetrate their own medication misuse due to misunderstanding, misinformation, error, ignorance, confusion, or a memory problem. German and Burton (1989) add to this the health beliefs and attitudes of both patients and practitioners. Among ethnic minority seniors, language and cultural differences contribute to miscommunication as well (Yee and Weaver 1994).

Physicians significantly contribute to medication misuse. Elderly patients present the doctor with more problems and take longer to give and receive information, but instead of taking more time, the length of encounters between physicians and patients declines with age (Lamy 1985). Physicians are less likely to spontaneously give directions about drugs to older than they do to younger patients (German and Burton 1989). German and Burton (1989) found that the elderly in their study reported being told of the purpose of a prescription 75% of the time, but only 53% were asked about their experiences after initiating use, and only 8% were told of potential side effects.

Lesage and Zwygart-Stauffacher (1986) identify a number of “red flags” that can signal medication misuse to the attending physician, pharmacist, or caregiver. These include sensory and perceptual alterations, severe physical disability, a complex medication regimen, the cumulative effects of drugs, and more frequent or infrequent prescription refills. They also cite limited economic resources and a recent major life change as being probable indicators of misuse.

INDICATORS FOR WASHINGTON STATE

Results from the 1990 United States Census show that 575,288 persons aged 65 or older reside in Washington, 12% of the state’s population. More than half of these older adults (58%) are aged 65 to 74, 31% are aged 75 to 84, and the remaining 10% are aged 85 or older. Males comprise 42% of the total 65 and older population; ethnic and racial minorities account for 5%. Asian and Pacific Islanders make up the largest single group of minority elderly (2.2%), followed by Blacks or African Americans (1.4%), Hispanics (1%), Native Americans (.7%), and other minorities (.4%).

Prevalence Estimates for Alcohol Abuse:

Census data is combined with prevalence findings from the ECA study to estimate the probable population of seniors with alcohol abuse and dependence problems in this state. Such calculations require extrapolations from data whose specific applicability to Washington state has not been established, and the resulting estimates therefore should be interpreted only as indicators of the magnitude of problem, not as act” representations of it. ECA data is based on samples aged 60 and over, and the 1990 Washington population in this age group was 764,670.

The ECA six-month prevalence rate for persons aged 60 and above who meet DSM-111-R criteria for alcohol abuse or dependence ranged from 1.4% to 3.7% (Adams et al 1993), with the range for older males from 1.9% to 4.6% (Warheit and Auth 1988). Applied to Washington males in this age group, there are from 6,320 to 15,300 elderly men who would meet these diagnostic criteria. The ECA prevalence rates for older females were less than 1% at all sites (Warheit and Auth 1988), indicating that fewer than 4,000 elderly Washington women would likely meet these criteria. For both men and women, the estimated number of older Washington adults affected by alcoholism would vary from a low of about 1,000 to a high of around 28,000.

Approximately one-third of those older adults who seek alcoholism treatment (and thus meet some diagnostic criteria) develop their alcohol problems as seniors. This ratio can be applied to the above ECA estimates to give an indication of the prospects for preventative action. This suggests that roughly 3,600 to 9,400 Washington men and women aged 60 and older with recent alcohol problems developed these as older adults. This is the estimated number of older alcoholics whose disease is potentially preventable. The research literature on early onset elderly alcoholics indicates that the remaining two-thirds of the older alcoholic population might also benefit from prevention, either by avoiding a recurrence of drinking or through social supports to improve treatment outcomes. Na-

tional surveys of “problem” drinkers (not necessarily meeting diagnostic criteria for alcoholism) find that about 6% of the over-60 population may be at high risk of some degree of alcohol problem. In Washington, this would be some 46,000 persons.

The state is presently involved in collecting information on alcohol and illicit drug use and treatment, as well as information about mental health and other problems, from a large statewide sample. This Substance Abuse Prevalence Project includes a sufficient sample of older adults who will be completing the Household Survey to permit analysis of results by age. If this analysis is done, Washington state will have the capacity to accurately estimate prevalence of alcohol use and abuse among its elderly population, and will be in a much better position to judge the needs for prevention and intervention..

Prevalence Estimates for Licit Drugs:

There are no comparable prevalence data from which to extrapolate the number of Washington elderly at risk for development of substance misuse problems with prescription medications. The best estimates come from the nation-wide study of prescription drug patterns among those over 65 reported by Wilcox et al. (1994). This report found that 24% of the community dwelling elderly were receiving a drug contraindicated for use with this age group and thus were at high risk of adverse drug reactions. Applied to Washington residence patterns, this would place an estimated 127,851 older individuals at risk. The probability of receiving one of the above drugs was highest for elderly in nursing homes, reaching to an estimated 40% in a single-state study. At this rate, perhaps some 11,000 of the more than 29,000 older residents of Washington nursing homes may be receiving such drugs.

Prevalence Estimates by Risk Factors:

Census data also identifies the proportion of Washington elderly who have various risk factors for development of abuse or misuse problems. Younger elderly males are at comparatively higher risk of alcohol problems than females or older males, and males comprise 46% of the elderly population aged 65 to 74. The older elderly and females are more at risk of misuse of prescription drugs, and 42% of Washington’s seniors are aged 75 and over, with females making up 63% of this age group. Seniors with a mobility or self care limitation might also be considered at higher risk of misuse: 9% of the males and 12% of the females aged 65 to 74 have such limitations- 20% of the males and 30% of the females aged 75 and older do so.

Other risk factors that combine with relative age are poverty and living alone. The majority of the young old (61%) live with their spouse, but the situation reverse for persons aged 75 and older, with just 38% living in a married couple family. In 1989, elderly persons aged 65 to 74 who lived with their spouse had a federal poverty rate of 2.8%; those living alone had a poverty rate of 16.8%. Among persons aged 75 and older, poverty rates for married couple households were 4.1%; for seniors living alone, the poverty rate was 21.5%. Lower levels of education also are a risk factor for

abuse and misuse: 27% of the elderly aged 65 to 74 and 43% of those aged 75 and older have less than a high school education.

Indicators from Service Use:

The final, indirect indicator of problem prevalence for Washington is seen in the numbers of older adults who currently receive state-supported substance abuse services. These data may also be seen as indicative of the degree to which current substance abuse services are proportionately or disproportionately utilized by Washington older adults, with some qualifications. The elderly may be more likely than younger adults to have access to private insurance or personal resources to pay for treatment, and thus not require state-supported services to the same degree. Also, since problem rates for alcoholism and other substance abuse are lower for this age group than younger cohorts, some underrepresentation is expected and appropriate. Data on treatment utilization are drawn from the most recent report (1992) on unduplicated clients of Division of Alcohol and Substance Abuse Services during that Fiscal Year.

As a proportion of their presence in the total population, individuals over age 64 were under represented in all DASA services. National use rates of inpatient and outpatient treatment by the elderly indicate that they account for just one percent of service users. In Washington, the highest use rates by the elderly were for detoxification, with older adults accounting for 2% of the users of these services. All other utilization rates were less than one percent, ranging from .93% of the methadone maintenance clients, .79% of those in outpatient treatment, and .13% of those in residential treatment. While these data cannot be used to determine a rate of under utilization, they do support the impressions of substance abuse specialists that the elderly are less likely to receive treatment for alcohol problems than prevalence rates would indicate. Given the very low probable rates of elderly involvement in illicit drug use, and the lack of any clear prevalence estimates, it is unclear whether participation in methadone treatment is proportionate to need. The results of the state Household Survey referenced above will provide an improved basis for judging treatment need and responsiveness among older adults with alcohol and illicit drug problems.

TARGETING PREVENTION EFFORTS

The above risk factors indicate that targets for prevention of elderly substance abuse and misuse should be multiple ones, including older persons themselves, the physician and other health care providers, other senior service providers, family members, voluntary organizations, and the general public.

Prevention activities directed to the elderly could involve preparation for aging with a focus on certain high risk events such as the death of a spouse or friends (Mishara 1985). Other targeted events could be preparation for retirement that includes a focus on the associated social changes as well as financial and insurance matters. Maddox et al. (1986) argues that those in the age group 55 to

64 should be educated about the increased risks for developing and perpetuating alcohol problems that will come with advancing age. These include less money, changes in status and role, unaccustomed free time, loss of friends and family members, declines in health, and problems of loneliness and living alone.

A focus on health concerns may be especially appropriate for people in their sixties and seventies, an age at which health is highly salient and risks to its continuance more immediate (Kane et al. 1985). Among older people more than those in younger age groups, identification of factors such as reduced safety and the prospects of adding to health problems may prompt attention to drinking and medication problems. Forster et al. (1993) point out that public health alcohol prevention campaigns should not just target the older alcoholic but also the moderate or infrequent drinker who is at risk when alcohol is combined with prescription and over the counter medicines. Moderate drinkers may also be at risk of adverse consequences from their changed physiological responses to alcohol.

This suggests an important preventative role for health care providers. The greater use of physicians by the elderly in general, and the proportionately even higher use of clinic and hospital care by those with risk factors for drug misuse or with alcohol problems underscores the part health care providers can play in prevention. Older adults more often present their substance abuse problems in the form of medical and social complaints or as a global emotional issue than as alcoholism or drinking concerns (Brennan et al. 1993; Gomberg 1990). Older female problem drinkers are especially likely to conceal the presentation of an alcohol problem with symptoms of depression and reliance on psychoactive drugs (Brennan et al. 1993). For misuse of medications, preventative actions taken by physicians and pharmacists, as well as allied health professionals, are particularly central.

There are roles for other service providers as well. Senior citizens centers and managers of senior housing complexes, police and social agencies, and other service providers may be important sources of information and potential referral. Such agencies are frequently the origins of referral of elderly substance abusers for medical or treatment assistance (Gomberg 1990). The furthest extension of this web of typically impersonal but important contacts is seen in the use of "gatekeepers" - meter readers, postal services, delivery persons, paper carriers, grocers, and others with routine contact with older adults. More than one-third of the clients referred to Elderly Services of Spokane come by way of such gatekeepers, including 26% of those with prescription drug abuse problems (Jenks and Rashko 1990).

The prevention role of those closer to the at-risk older person - spouse, family, friends, and neighbors - should not be overlooked. Kail and Litwak (1989) identify the multiple, different ways in which these social supports can be used to help reduce medication misuse by an older patient. The church is an often neglected part of this personal supportive network, and one that may be especially important for ethnic minority seniors (Yee and Weaver 1994; Kail 1989). Raffoul and Haney (1989) stress the need to see ethnic minority seniors as individuals in collective associations, and to direct prevention

efforts accordingly. Such an approach seems equally relevant for many non-minority seniors, with attention appropriately directed to other voluntary organizations such as civic or social/fraternal organizations in which the older person might have a membership.

VIII. MODELS FOR PREVENTION

Possible programmatic or informational models to use for the design of a prevention program in Washington state were looked for in the review of the research literature and through a request for information sent to every state and relevant national organizations. The results of both efforts yielded a consistent set of suggested approaches and a variety of educational resources or resource references. The development of prevention materials for senior substance abuse and misuse dates back to the late seventies- early eighties, a point at which the publication of research also begins to show attention to the problem. The National Institute of Drug Abuse (NIDA) and the National Institute of Alcohol Abuse and Alcoholism (NIAAA), and the National Institute on Aging (NIA) all began initiatives during this period. NIA began a health awareness campaign; NIDA developed a skill-building education program, "Elder Ed," for use by senior groups; and NIAAA increased its sponsorship of research on the topic. Similar educational efforts were recommended by blue ribbon panels and mounted by pharmaceutical chains and manufacturers.

The resurgence of concern about senior substance abuse and misuse at the end of the 1980's produced another spate of publications, including special issues of several magazines or journals directed at service providers and at seniors themselves. Today there is an extensive listing of programs and materials for informing seniors about the risks of substance abuse and misuse and how to avoid or respond to these. CSAP has published a directory specifically for alcohol problems and other listings are available on alcohol and on licit drugs. There are multiple pamphlets readily available directed to older adults, their family members or caregivers, or to senior service providers. The major sources for the most readily available such informational materials are provided in the Appendix. Medication guides are routinely available at pharmacies and computers have greatly improved the capacity for pharmacists and physicians to maintain medication records. There are related training programs for physicians and other health care providers as well, although these are reported to be less utilized than the patient and self-education materials.

In the majority of these preventative efforts, evaluations were not done and there is little documentation of the effects or outcomes (Kane et al. 1985). There is some research on changing health-related behaviors that shows positive outcomes from physician education. The physician has an opportunity to educate the patient both directly and through prescription practices, and taking an inventory of all drugs used has been identified as a helpful strategy (Finlayson 1984). The proper surveillance of drugs being used has been found to be closely connected to appropriate prescribing by physicians in hospital settings: community based-patients seem to benefit from medication profiles maintained by pharmacists (German and Burton 1989). For the physician, training in managing compliance and

effective communication and knowledge about the patient's expectations and health beliefs has been associated with better outcomes (Kail 1989). Kane et al. (1985) recommend the following strategies for prevention of misuse: careful assessment of the patient's complaints- careful determination of the appropriate dosage; use of a family pharmacist to incorporate proprietary medication monitoring and coordinate prescriptions from other physicians; thorough discussion of all medications with the patient and the patient's family; and periodic reassessment of medication needs.

Although the usual failure to include older adults in drug trials has only recently been widely recognized as in need of change, Monane et al. (1994) judge that the physician nonetheless has access to a reasonable list of reference works on prescribing for the elderly to guide the choice or avoidance of a particular drug. Glantz (1985) characterizes the efforts to educate physicians about the special medication needs and problems of the elderly as having been extensive, and assumes that any given physician will have access to the information necessary to safely and appropriately prescribe for elderly patients. Should' this not be the case, she would consider the prescribing practices abusive, a conclusion shared by Wilcox et al. (1994) in their report on high rates of inappropriate prescriptions for older patients.

Kail (1989) reports that educational strategies directed at the patient appear to be effective in improving compliance with short-term medical regimens, particularly when they include written instructions. The results of patient education on compliance over more lengthy time periods are less certain, but self-monitoring by the patient and self-help, plus positive reinforcement and ongoing supervision by the health care provider seem to be important elements of effectiveness. There are some indications that preventative teaching about probable negative effects and training to improve coping strategies to deal with these has been helpful (Kiyak and Borson (1992). Such enhanced self-control reduces feelings of helplessness and contributes to the reduction of stress.

There is less substantiation for the efficacy of the use of printed materials and pamphlets. Although the choice of brief pamphlets or handouts, special issues of popular journals, targeted education programs, public service announcements, and use of multiple media makes "good sense," systematic assessments of the outcomes of similarly-based prevention programming for juveniles have shown little effect (Botvin 1990). Skinner (1990) summarizes the results of research on the effects of alcohol-prevention. He finds that neither education nor mass media campaigns alone have been found to be associated with demonstrated behavioral changes.

When mass media efforts were followed up by group and individual counseling with high risk persons, however, there was some impact (Skinner 1990). Skinner further reports that even brief but targeted interventions with problem drinkers, with minimal follow-up by physicians, have been associated with reduced alcohol consumption. Bandy and President (1983) also note that the most successful campaigns to affect health behaviors combine mass media efforts with strategies involving interpersonal communication They point out that the elderly spend more time watching television

than in any other leisure activity, and, while physicians are the primary source of health information for older persons, television public service announcements, newspaper columnists, and magazine articles also are identified as important sources of such information for this age group.

Prevention efforts might also be focused on the conditions and circumstances that foster substance abuse problems. Mishara (1985) suggests taking actions such as improvements in housing for seniors, outreach to the isolated elderly, the development of new career programs for retired persons, and improved aid for family caregivers. He also emphasizes the identification of and improved access to a wide range of alternatives to drinking or drug abuse for older adults who feel isolated, are grieving, suffering from chronic ailments, or who have experienced a loss of social roles.

For many seniors, these alternatives seem to be provided by a support network of spouse, family, friends, and church. These sources of social support, and even the perception that such supports are present, appear to have a stress-buffering effect that protects from stress responses which include excessive drinking (Jenninson 1992). Lawson (1993) reports that the social risks associated with aging can be reduced by increasing the prospects for social contact and reducing isolation, actions that also reduce psychological risk. She suggests as well the teaching of skills for constructive use of leisure, and counseling for loss, grief, and to improve marital relationships. Brennan and Moos (1990) find evidence in their research that preventative interventions to enhance the support available from spouse, extended family, and friends may reduce alcohol abuse and improve psychological functioning among problem drinkers. Social support has also been associated with better outcomes for elderly alcoholics following treatment (Schonfeld and Dupree 1991).

There are two broad explanations for why social Support influences health (Estes and Rundall 1992). The buffering hypothesis posits that social support provides protection from the physiologically and psychologically harmful effects of stressful events; the main effect hypothesis maintains that social support promotes healthy responses, regardless of whether or not one experiences stress. Estes and Rundall report that neither explanation is conclusive, but there is sufficient evidence for both to justify concerns about seniors who lack social support networks. One cannot assume, however, that all older persons will necessarily be responsive to efforts to increase their options for interpersonal contacts: Kane et al. (1985) caution that there is no reason to expect any benefits from socializing older adults who have long-standing patterns of social isolation. Those whose isolation is recent, however, due to bereavement or other loss, may be aided by social interventions. Strategies for these interventions and expectations for their effect should take into account the differential capacity of those called upon for support. Kail and Litwak (1989) have identified both the varying capacities and the clear limits of the types of supportive actions that can reasonably be expected from spouses, family, friends, neighbors, and voluntary groups.

In any such preventative or intervention actions, it is important not to overlook the possible consequences of the action itself. Many of the medication misuse problems encountered by the elderly are

the result of iatrogenesis, conditions caused by the medical intervention itself (Kane et al. 1985). Vogt (1992) further cautions that many of the programs aimed at supporting the elderly are not in fact designed to achieve their goals, augmenting helplessness by “doing for” older adults or relying on health warnings. He suggests rather that teaching, encouraging, and enabling the elderly to take care of themselves and their needs will increase autonomy and improve their sense of support and self-control. Yee and Weaver (1994) add the additional caution that for ethnic minority elderly, appealing to a sense of personal control and individual responsibility may be counter-productive, with a focus on the entire family and the value of interdependence and collective responsibility likely to be more effective.

MODELS FROM OTHER STATES

A written request for information on any elderly prevention initiatives was sent to the substance abuse prevention coordinators in all other 49 states. Fourteen states responded, thirteen in writing and one by telephone, with the initiatives of two other states referenced in these responses as well. In most of the states responding to the information request, and presumably in many that did not respond, there had been no organized, state sponsored initiatives directed to the prevention of elderly substance abuse and misuse. The existence of a problem and a need was usually acknowledged, however, and several state coordinators expressed intentions to deal more directly with this issue in the future. A few of the coordinators enclosed information about local intervention programs or training efforts attended by service providers.

Three of the responding states indicated they had taken a coordinated response to some aspect of the abuse/misuse problem, and similar responses were referenced for two other states. California has focused its attentions on medication misuse; Minnesota, Ohio, and Oregon have developed initiatives for dealing with elderly alcohol abuse. Michigan and New Hampshire sent information about comprehensive statewide programs that covered both the misuse of prescription and over the counter drugs and the abuse of alcohol. Contact names and addresses for the three state-coordinated efforts discussed here are included in the Appendix.

The scope of Michigan’s efforts is most comparable to the scope of this review, and provides perhaps the best model for developing Washington’s prevention strategy. Michigan’s program also has been developed over the past 15 years, and while longevity is no guarantee of quality, its continuation and strong support base among substance abuse and senior services providers suggests a certain program effectiveness. New Hampshire’s program, in place for seven years, also has many exemplary features. These include a broad-based coalition of participants, encompassing medical personal as well as senior organizations and services, with a special focus on tenants of subsidized senior housing complexes. This aspect of the New Hampshire strategy is being looked to as a national model, and shows great promise in identifying improved strategies for intervention with low income elderly who have alcohol problems and treatment needs.

The programming efforts of the other states, while more narrowly focused and comparatively more recent, are similar to these approaches where there are similar prevention objectives, and 0 are congruent with the strategies employed in federally-sponsored initiatives. All also are congruent with the general findings of the research literature, although as noted above, their effectiveness has not been well evaluated. Like successful prevention programs for adolescents (Pentz et al. 1989), these state-level coordinated programs stress a community-based approach, encompassing various agencies and organizations. These programs typically include the following elements: 1) information, such as public service announcements and programs, focused presentations, or written materials- 2) education, including structured learning packages available through commercial as well as public sources- 3) skills training for older adults and service providers; and 4) development and support of public policy on aging and elderly services.

Michigan's comprehensive program adds to these the promotion of alternative activities such as volunteer options, and coalition building for older adult advocacy. Information about these elements and how to access them, as well as supportive literature and handouts, are combined into a booklet of supportive materials, "Growth at any Age." The current emphasis of Michigan's program is on local networking and information sharing. Both are fostered by publication of a newsletter, a leadership council, and state and regional conferences, all under the coordination of a contractor. The Michigan prevention strategy uses a broad health promotion approach to reduce the risk of older adults developing health problems related to alcohol abuse or medication misuse. As such, its focus includes not only safe and appropriate use of these substances but also retirement, dealing with loss and change, family and social support systems, and various other related topics.

A somewhat different approach is underway in California. In this state, the major focus for policy concern has been prevention of prescription drug misuse, beginning with the preparation of a White paper in 1987 and more recently reaffirmed through a 1992 Roundtable, the results of which are presently being distributed. The recommendations from the Roundtable concentrate on policy and communication shifts, including more information sharing between state substance abuse and aging agencies, improvements of materials available through the state resource center, and support for better case management of elderly clients and improved funding for and tracking of prescriptions. The California recommendations also call for the expansion of local training to include service providers, caretakers, consumers, and most often neglected, health care professionals.

RECOMMENDATIONS

The previous discussion of various programming initiatives reveals several things. First, this problem is not newly identified and there are a large number of informational and educational materials available to support any Washington prevention efforts. Second, despite such availability, there is little evidence that the problem is being resolved and uncertainty that actions taken elsewhere have

been or will be effective. There are undoubtedly other directions for prevention programming, some of which are indicated in the preceding literature review, that might yield better or equivalent results. Third, any coordinated, statewide initiative on elderly substance abuse and misuse prevention will put Washington ahead of most other states in responding to this problem. Finally, decisions about the focus and scope of any such initiative have not been made, and in addition to requiring a judgment about which problem or problems to target first, also are contingent on available funding and the cooperation and participation of other agencies and organizations. In accord with these needs, the following recommendations are intended to guide development of a prevention program for this state, and do not specify its specific form.

1. Collaboration: The plans for an elderly substance abuse and misuse prevention initiative should be developed with participation from other state-level agencies involved in services to older adults, include consultation with relevant local and regional service providers, and also involve participation by representatives from the aging community.

This recommendation recognizes the varied sources of services that might be appropriate entry or target points for prevention efforts with this group, and the importance these have had in prevention efforts elsewhere. Early involvement is critical for full utilization of these options in any program implementation. It also acknowledges the diverse interests such groups represent and the need for any initiative to reflect this diversity and draw on its strengths.

2. Information: Strategies for any prevention initiative should include compilation and packaging of information about the targeted problem or problems, and where and how to access additional resources and services. Such a package should make maximal use of existing materials and resources, with the primary attention directed to distribution of information rather than development of new materials.

This recommendation addresses the existing availability of diverse informational and training materials and stresses the value of putting these together in such a way as to improve access to these resources through a carefully planned distribution strategy. The need here is for compilation of these resources so that they can be more readily and widely identified, reviewed, and utilized.

3. Education: Considerations for support of education and training should include as recipients the elderly themselves, their family members, senior and substance abuse services providers, other caregivers and gatekeepers, and health care providers, including physicians.

Effective prevention requires the involvement of the individual at risk, plus the complex network of associates and service providers likely to be in a position to perpetuate, identify or intervene in the substance abuse or misuse problem. The recommendation draws on indications that multiple points of action are most effective. It also acknowledges the central role often played by others in the

health and well-being of older adults.

4. Scope- Prevention initiatives for the elderly should be wide in scope, and include as part of their aims not only improvement in general health behaviors other than substance abuse and misuse but also support for secondary intervention and treatment.

This recommendation is consistent with the suggestions of experts in the field about the need to include a range of prevention strategies with this age group. It also attends to the often overlapping causes and consequences of health behaviors among older adults, and the advantages of intervening to prevent further health compromises.

5. Pilot Program: Pilot or demonstration programs should be considered that improve linkages between information and education efforts and individualized attention or counseling.

Standard prevention approaches often fail to lead to the desired behavioral change. One solution identified to improve these outcomes is to do more personalized follow-up, particularly with high risk individuals. The recommendation aims to encourage the planners of Washington's elderly prevention program to be innovative and to draw on research knowledge of what is likely to be effective.

6. Policy: Finally, prevention strategies should review state and agency policies that affect this age group, seeking to identify areas for specific changes directly influencing substance abuse and misuse and their prevention or intervention, as well as more general policies affecting quality of life and social roles.

This last recommendation addresses the power of policy to shape action and also its power to limit. Policy directives have been identified elsewhere as ways to influence medication practice, improve access to substance abuse services, and reduce ageism, and stereotypes. Policy leads social change, and some part of the problems of substance abuse and misuse among the elderly would be substantially reduced with attention to the stigma, discrimination, social isolation, and poverty affecting older adults.

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APPENDIX

Sources for Information and Materials:

American Association of Retired Persons
601 E Street
Washington, D.C. 20049
202-434-0900

Johnson Institute
7151 Metro Boulevard
Minneapolis, MN 55439-2122
800-231-5165

National Council on Alcoholism and Drug Dependence
12 West 21st Street
New York, NY 10010
800-NCA-CALL

National Institute on Aging
Federal Building, Room 6C12
Bethesda, MD 20892
301-496-1759

National Clearinghouse for Alcohol and Drug Information
PO Box 2345
Rockville, MD 20847-2345
800-729-6686

State Contacts:

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Department of Alcohol and Drug Programs
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Sacramento, CA 95814-4037
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New Hampshire:

Margaret Morril, Program Specialist
Department of Health and Human Services
Division of Elderly and Adult Services
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