REPORT OF THE
DEPARTMENT FOR THE AGING ON

The Problems of Suicide And Substance Abuse By The Elderly and the Impact of Family Care Giving On Employee Work Performance

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

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TABLE OF CONTENTS

EXECUTIVE SUMMARY.....1

RECOMMENDATIONS.....5

PREFACE.....8

SUICIDE AMONG THE ELDERLY.....9

- METHODOLOGY.....9
- NATURE OF THE PROBLEM.....9
- EXTENT OF THE PROBLEM OF SUICIDE IN VIRGINIA.....10
- DEMOGRAPHIC FACTORS IN SUICIDE.....11
- FACTORS CONTRIBUTING TO ELDERLY SUICIDE.....15
- METHODS USED TO COMMIT SUICIDE 17
- EFFECT OF SUICIDE ON FAMILY SURVIVORS 18
- CONCLUSION 18

SUBSTANCE ABUSE BY THE ELDERLY.....21

- METHODOLOGY.....21
- DRUG MISUSE AND ABUSE: NATURE OF THE PROBLEM.....22
- ALCOHOL MISUSE AND ABUSE NATURE OF THE PROBLEM.....24
- DEMOGRAPHIC FACTORS IN SUBSTANCE ABUSE 26
- CONCLUSION 34

IMPACT OF FAMILY CAREGIVING ON EMPLOYEE WORK PERFORMANCE....36

- METHODOLOGY.....36
- INTRODUCTION.....36
- SURVEY FINDINGS.....38
- CONCLUSIONS.....45

RECOMMENDATIONS 50

APPENDIX A: SUICIDE AMONG THE ELDERLY

APPENDIX B: IMPACT OF FAMILY CAREGIVING ON EMPLOYEE WORK PERFORMANCE - RECOMMENDATIONS

APPENDIX C: HOUSE JOINT RESOLUTION NO. 156

EXECUTIVE SUMMARY

The 1988 session of the Virginia General Assembly, in House Joint Resolution 156, requested the Virginia Department for the Aging to study three areas of concern to the elderly, their families, and caregivers. The areas of concern were suicide among the elderly, substance abuse by the elderly and the impact on the workplace of caregiving to elderly by adult children. The areas were studied separately and recommended actions were made for each concern.

STUDY 1: SUICIDE AMONG THE ELDERLY

Virginia loses an elder to suicide every 2.9 days. Older Virginians commit suicide at a rate of 21.7 per 100,000 elderly compared to 19.8 per 100,000 on the national level. A most startling finding is that the elderly in Virginia have a 68% higher suicide rate than the state as a whole and 76% higher than among Virginia's youth.

Several factors appear to be significant in describing the elderly person who is likely to be a suicide candidate: physical and mental illness, gender, race, marital status, and religiosity. A profile of a person most "at risk" to commit suicide is a white male, over 65, widowed, with no strong religious beliefs, depressed, with some painful chronic illness and a history of alcohol abuse.

In general, the suicide rate among older men is higher than women, possibly because their choice of method is extremely lethal. Older men, nationally and in Virginia, tend to use firearms to commit suicide.

The rate among white persons for suicide increases with age, the rate of suicide among non-whites peaks in the twenties and then decreases. In regard to marital status, those who have had a marriage disrupted by death or divorce are most at risk with those who have never been married the next most vulnerable. Those who are still married are the least at risk. Religion seems to have an impact on lessening the potential for suicide, probably because it provides supports and a feeling of self worth.

The methods of suicide are basically three: firearms, solid and liquid poison, and hanging. A significant fact is that older Virginians of both sexes use firearms to commit suicide in noticeably higher proportions than the elderly in the nation as a whole. For the period of 1983-1985, in Virginia, elderly used firearms to kill themselves 80.3% of the time compared to 64.9% of the nation's elderly. Virginia's older men used firearms almost exclusively and Virginia's older women in a majority of the cases.

Another significant observation is a difference in suicide rates in the regions within the Commonwealth. In the Shenandoah - North-Central Area (excludes northern Virginia) the suicide rate for elderly persons for the 1978-1982 period was 29.4 per 100,000 as compared to 23.1 for the state as a whole.

Researchers conclude that a suicide prevention plan is needed to include education of the elderly, their family and and service providers; a system for early detection and treatment; and development and expansion of psychosocial services. Any plan developed should also analyze the reasons for the significantly higher rates of suicide among Virginia's elderly, the significantly higher rates for men, higher percentages in Shenandoah-North Central Virginia, and the distinct disposition of Virginians to use firearms.

STUDY 2: SUBSTANCE ABUSE BY THE ELDERLY

The study of substance abuse by the elderly is hampered by a lack of accurate and reliable data or studies on the topic. However, results of this study reveal some factors worthy of attention.

Substance abuse among Virginian's elderly can be divided into three categories: prescription and over-the-counter drug abuse, alcohol abuse, and illegal drug abuse. The potential for abuse of prescription drugs or a combination of prescription drugs, over-the-counter drugs and alcohol is very significant.

Many elderly use at least two to three prescription drugs daily. As the number of prescription drugs increases so the potential for complications is exacerbated, especially if the older person uses over-the-counter drugs, prescription drugs, and alcohol in combination. The elderly abuse these substances by overuse, under use, erratic use or contraindicated use. Sedative-like tranquilizers and prescribed pain killers are most likely to be intentionally abused by the elderly.

It is also reported that one-third of the elderly do not take their prescriptions correctly. Drug-sharing and hoarding are other examples of misuse. The use of different physicians and several pharmacies can result in adverse reactions from inappropriate combination of drugs. Virtually no elderly make use of substance abuse treatment centers to help alleviate the drug abuse problems.

The profile of the elderly person most at risk for misuse/abuse of legal drugs focuses on the older woman. It is significant that older women are prescribed psychotropic drugs twice as often as men. Widows are more likely to be given such medications, but many elderly seem to increase their intake of drugs following stressful life events.

Physiological changes which occur with aging increase the risk for drug interactions and toxicity. Reduced metabolic functions and other physical changes impair the absorption rate of drugs. Impaired vision and hearing contribute to misunderstanding about directions for use of medications. Memory loss and confusion increase the risk of misuse. Older persons use drugs for two primary reasons: to ease pain from chronic and terminal illnesses and to counter the common effects of aging such as insomnia, anxiety, and constipation.

Up to 10% of the elderly population may abuse the use of alcohol. The abuse of alcohol is a particular problem for white males between 60 and 70 years of age and male alcoholics also comprise the 88% of the elderly who are receiving treatment at substance abuse treatment centers. The psychological effects of alcohol are more deleterious in the elderly than in the young. The risk of suicide among the elderly alcoholic is five times greater than among the nonalcoholic. The potential for suicide by the use of alcohol, prescription drugs, over-the-counter drugs, or a combination of these substances is significant.

The use of illegal drugs by older persons does seem to be increasing. Addicts are now living to old age and the numbers are expected to increase over the next ten years. The most abused illegal drugs are marijuana, heroin, and morphine. The most likely elderly person to use illegal drugs are white males and the young-old.

Researchers recommend a prevention plan for substance abuse to include education, early detection and treatment, development of services, and evaluation.

STUDY 3: THE IMPACT OF CAREGIVING IN THE WORKPLACE

Over 80% of the care provided the elderly in communities is provided by family members and friends. In most cases, this is provided by the spouse, daughter, or daughter-in-law. With the ever increasing cost of living and the changes in families, the work force and societal attitudes on the roles of women, many person who would have been full-time caregivers are trying to provide care while holding a full or part-time job.

The persons studied who were employed and providing care were primarily female (69%), white (79%), married (78%), had some college (64%), and most (57%) had family incomes less than $34,999. Fifty-six percent of the adult dependents do not live in the caregivers' home. The type of care provided include: housekeeping (60%), companion (57%), financial management (48%), transportation to medical appointment (42%), personal care (37%), financial support (36%), and giving medication (25%).

Caregivers experience stress at home and in the work place. The impact on the productivity of the caregiver in the workplace includes performing activities to assist the adult dependent while at work such as making phone calls, being late for work or leaving early, missing work, taking personal or sick leave, changing work schedules, and giving up paid overtime. Many caregivers have considered giving up a job, changing jobs, or have refused a more responsible position due to their caregiving responsibilities.

The conclusions drawn by the researchers indicate a need for a flexible work environment, and education for caregivers and employers. There appears to be a need for community services to supplement the services provided by the caregiver.

Researchers recommend a more comprehensive public/private response to the growing phenomenon of adult caregiving to include public education and workplace support.

CONCLUSIONS

This three part study has documented the concern that older Virginians are at risk of committing suicide at a higher rate than the elderly in the nation as a whole. It also has shown the real potential for abuse/misuse of prescribed drugs, over-the-counter drugs and of alcohol by the elderly in the Commonwealth. The need to provide assistance to the working caregiver in the workplace and in the home also was documented. The issues of suicide and substance abuse are complex and require a comprehensive plan to assure a comprehensive approach to deterring these problems. The issue of the impact of caregiving in the workplace was studied in one region of the Commonwealth and the recommendations need to be tailored to meet the needs of different work environments in the rest of Virginia.

RECOMMENDATIONS

Recommendation 1:

The Department for the Aging, in conjunction with the Department of Mental Health, Mental Retardation and Substance Abuse Services, the Area Agencies on Aging and the Community Services Boards, should develop a State Suicide and Substance Abuse Plan for the Elderly to be implemented by July 1, 1990.

The plan should include the following components:

A. Research to determine the reasons for the higher rates of elderly suicide in Virginia and the frequent use of firearms.

B. Education for:

* The elderly in the use of drugs and ways to deal with stress, depression, changes and loss to avoid suicidal tendencies;

* The family to enable them to recognize signs of concern regarding potential substance abuse/misuse and suicide tendencies;

* Professionals to assure awareness and coordination of services,

* The general public to increase awareness of the needs and concerns of the older population.

C. Early Detection and Prevention:

* Training in early detection for appropriate professionals;

* Outreach targeted to high-risk populations.

D. Service development:

* A plan to target resources to meet these areas of concern by all human service agencies;

* Documentation of the need for additional services.

E. Evaluation:

* Plan to be evaluated two years after its implementation.

Recommendation 2:

The Department for the Aging, in cooperation with the Department of Labor and Industry, the Department of Personnel and Training, and members of Virginia's business community, should develop a Plan of Cooperation to provide guidelines to employers on ways they can assist caregivers in the workforce. This plan should be implemented by July 1, 1990 and should include:

A. Materials to educate employers on the problems faced by caregiving employees and the impact of these problems on productivity.

B. Options for employers to use in designing personnel policies,

C. Educational materials to be used by employers to train their management and supervisory staff to deal with employees' concerns and stress as they provide care to a dependent while working.

D. Educational materials which can be made available at the work place to provide information and support to caregivers.

E. Development of a list of services needed in each community to assist caregivers. This list should be used to target resources and to document the need for additional services.

PREFACE

This report summarizes three separate and extensive studies conducted on each of the problems under consideration: suicide among the elderly, substance abuse by the elderly, and the impact of family caregiving in the workplace. Although there are clearly common elements among the three topics under consideration, this study reviews each topic area separately in order to give full consideration to the unique nature of each of these problems. A copy of the complete study on any of the topics, including the extensive list of references, is available from the Department for the Aging.

The Department for the Aging acknowledges the assistance of the following organizations:

The Medical College of Virginia/Virginia Commonwealth University

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Virginia Department of Health

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Virginia Center on Aging

Indiana University at South Bend

Charlottesville-Albemarle Chamber of Commerce

Veterans Administration Medical Center

Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services

Metropolitan Hospital of Richmond

Charter Westbrook Hospital of Richmond

The materials contained in the studies on suicide and substance abuse reflect the limited nature of avialable data on the topics, especially on substance abuse by the elderly. Detailed descriptions of the methodology used are available in the full studies which can be obtained at the Virginia Department for the Aging. Because of the limited data, the most recent statistics are not used for comparative purposes in several circumstances. One may assume that this data reflects the minimum number of elderly who commit suicide and are substance abusers because of underestimates and under reporting. Conclusions in this report have been developed conservatively because of these factors.

SUICIDE AMONG THE ELDERLY

METHODOLOGY

This section of the report is a compilation of the overall results of an extensive study of suicide among the elderly conducted for the Virginia Department for the Aging by Nancy J. Osgood, Ph.D., Associate Professor of Gerontology and Sociology, Virginia Commonwealth University, John L. McIntosh, Ph.D., Associate Professor of Psychology, Indiana University at South Bend, Nancy R. Covey, B.S.ED., R.N., Graduate Student, Gerontology, Virginia Commonwealth University.

These investigators received substantial assistance from the Dr. David K. Wiecking, Wayne Hufner, Patsy Cornwell, Regional Administrators and Staff of the Office of the Chief Medical Examiner; Russell Booker and Dorothy Harshberger of the Center for Health Statistics of the Virginia Department of Health; Michael Pyles and Matthew McTaggart of the Virginia Center on Aging; the Retirement Research Foundation; Indiana University at South Bend.

The study of suicide among the elderly included:

1. a review of available literature,
2. an analysis of official mortality statistics on suicide from the National Center for Health Statistics for the period 1968 through 1985,
3. a case by case examination of 74 percent of all cases of suicides 60 and over committed between January 1, 1987, and August 31, 1988 recorded in the Medical Examiner's regional offices throughout Virginia (249 cases)
4. a quantitative analysis of all suicides of individuals 60 and over committed between January 1, 1987 and August 31, 1988 recorded in the Office of the Chief Medical Examiner (338 cases).
5. a public comment period and two public hearings.

NATURE OF THE PROBLEM

The people most "at risk" for suicide are those 65 and older. Compared to younger individuals, the old openly communicate their suicidal intent less frequently (Jarvis & Boldt, 1980), use more violent and lethal means (McIntosh & Santos, 1985-86), and less often attempt suicide as a means of gaining attention or to cry for help (Pasquali & Bucher, 1981). All of these factors increase the risk of death from suicide for the old. The suicide rate of the old (65+) living in the community is higher than that of the young. In 1983 U.S. suicide rates were 12.1 per 100,000 for the nation, 11.9 for those 15 to 24 years old, and 19.2 for those 65 and over (National Center for Health Statistics, 1985). For elderly white men, who historically have the highest rate, it was 40.2. Thus, the highest rates of suicide for those living in the community are found not among the young, as many in our society believe, but among the elderly. This observation has been true as long as official suicide data have been kept by the U.S. government and is accurate for most other countries as well (Shulman, 1978). To date little research on suicide

among elderly residents of long-term care facilities has been conducted. One study conducted on the geriatric ward of the Veterans Administration medical center (Wolff, 1970) suggests that overt suicide does occur in long-term care facilities.

The rate of suicide among the old has fluctuated over the past several decades. Between 1950 and 1980, the national suicide rate for older people declined 26 percent. From 1980, the rate has climbed progressively from 17.1 (per 100,000) in 1981, to 18.3 (per 100,000) in 1982, and to 19.2 (per 100,000) in 1983 for those over 65, as compared to 11.9 for 15 to 24 year olds in that same year (Osgood & McIntosh, 1986). Not only do older people kill themselves at a greater rate than their numbers in the population, they do it with, as Seiden (1981) describes it, "determination and single-mindedness of purpose" not encountered among younger age groups (p. 265).

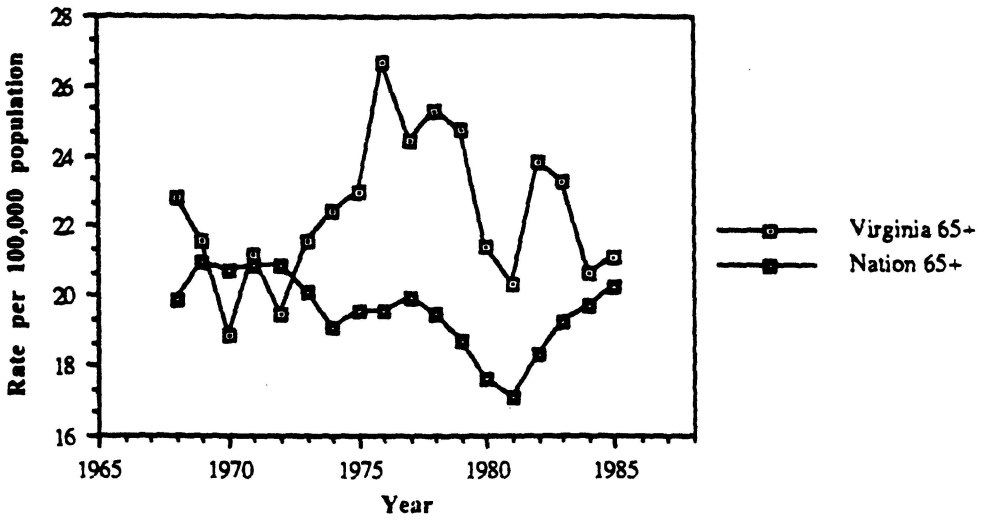
EXTENT OF THE PROBLEM OF SUICIDE IN VIRGINIA

During the 18 year period for which mortality statistics were studied (1968-1985) a total of 1842 Virginia residents aged 65 and above officially died by suicide. During the most recent time period an average of 124 older persons per year committed suicide. Virginia loses one of its seniors to suicide every 2.95 days.

For the most recent time period studied (1983-85) this represents a rate of 21.7 for every 100,000 elderly Virginians. That rate may be compared to 12.9 for Virginians of all ages and 12.3 for young Virginians (15-24). Therefore, the elderly in Virginia have a current level of suicide that is 68% higher than for the state as a whole and 76% higher than among Virginia's youth. Elderly Virginians are in fact at higher risk than the nations's old (rate=19.8), (Figure 1.1). For the nation as a whole, when all ages are combined, Virginia's older population has a rate that is 76% higher (rate=12.3 for all ages, 21.7 for older Virginians).

Elderly suicide is over-represented among elderly Virginians as it is among the old in the U.S. as a whole. Older Virginians comprise 10.1% of the population, but contribute 17% of the suicides. By comparison, Virginians aged 15-24 were 17.7% of the population and accounted for 17% of the suicides. Older citizens of the Commonwealth are a high-risk population for suicide.

Figure 1.1 Elderly Suicide Rates in Virginia and the U.S. as a Whole 1968-1985



Based statistics obtained from the National Center for Health Statistics.

DEMOGRAPHIC FACTORS IN SUICIDE

Age Differences. Klein-Schwartz, Odera, and Booze (1983) showed that the elderly who were suicidal were more likely to take agents with higher lethality than the young, and because of accompanying medical problems were less able to survive an attempt. Proudfoot and Wright (1972) suggest, however, that increased mortality in the elderly may be attributed to social isolation, greater effort to avoid discovery, and delayed medical intervention (p. 30). Wilson (1981) cites isolation as a contributing factor in increasing lethality in suicidal attempts in the elderly. Shulman (1978) contends that physical illnesses frequently found in elderly suicides may often provide a substitute cause of death over suicide, whenever there is any doubt.

In a few studies the "old-old" (75+) have been shown to have the highest suicide rate (Kastenbaum, 1985; McIntosh, 1984). Vulnerability and frailty in the "old-old" tends to make suicidal attempts more lethal. According to those who have compared suicide among various categories of the old, the "old-old" are most likely to die from suicidal behavior because of their reduced physical capacity and function, medical complications, and social or physical isolation (Klein-Schwartz, Odera, & Booze, 1983; Wilson, 1981).

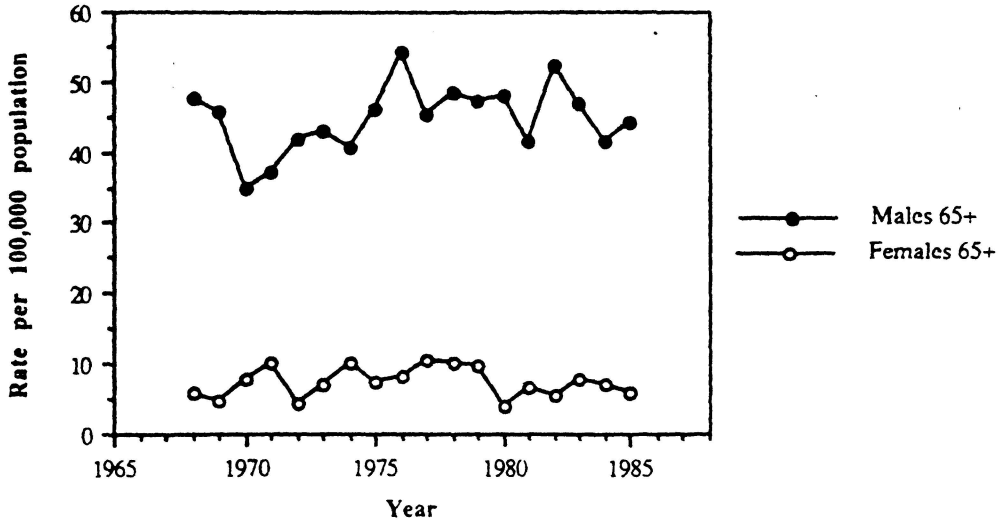
Virginia Data. Virginia mortality data indicates that the suicide rate for the 65-84 year old group is the highest. Indeed, there was a significant increase in the rates of the 75-84 year old group. The suicide rate for the 65-74 year old group in Virginia displayed stability through the 1968-72 to 1983-85 time frame. The old-old (85+) rate declined in the 1983-85 period. Analysis of cases from the Office of the Chief Medical Examiner of Virginia also indicates that individuals 60 and over who committed suicide were primarity in the young-old (60-74) group (73%).

Gender Differences. The most consistent finding in studies of suicide behavior is that women and the young attempt, and men and old people complete, suicide more frequently. In 1970, and again in 1980, approximately one-fifth of all suicides among white males were among those 65 years of age or older (Center for Disease Control, 1985). White males are at highest risk for suicide (McIntosh & Santos, 1981).

Investigations of both suicide and attempted suicide have shown that relatively more males as a group use violent and lethal methods, e.g. firearms, hanging, jumping, more frequently. Females usually prefer less violent techniques such as poisoning and suffocation (McIntosh & Santos, 1982 and 1985-86; Wilson, 1981; Klein-Schwartz, Odera, & Booze, 1983; Proudfoot & Wright, 1972). Use of lethal methods increases the likelihood of death from suicidal behavior.

Virginia Data. Virginia mirrored all age groups of the nation as male rates greatly surpassed female rates, according to the mortality data analysis. The 1983-85 rate for elderly Virginia males was 44.2 while that for females was 6.9. Four times as many older adult male Virginians committed suicide as did older adult female Virginians (Figure 1.2). Also, of the suicides by persons over age 60 analyzed from the Medical Examiner's files, 80% were male.

Figure 1.2 Suicide Rates Among Virginia's Elderly by Sex, 1968-1985

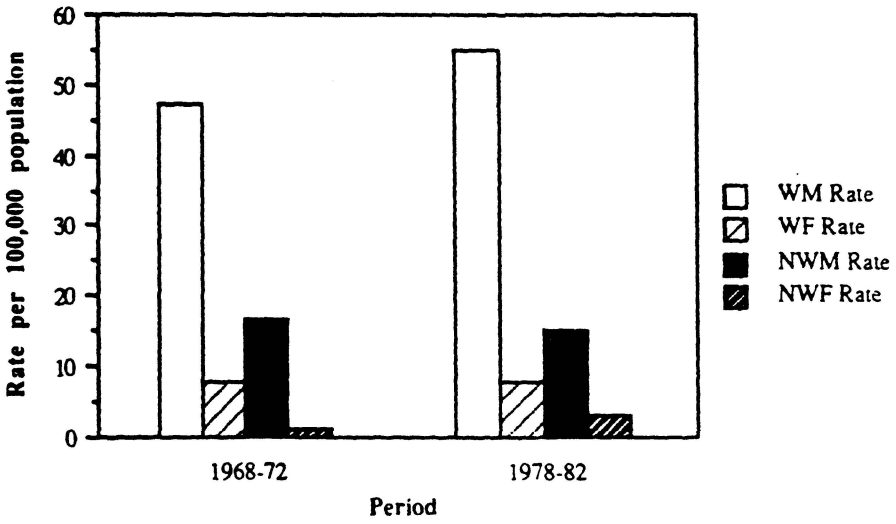


Based on analysis of official mortality statistics obtained from the National Center for Health Statistics.

Ethnic Differences. While suicide rates for whites in the U.S. generally increase with age and peak with old age, those for nonwhites peak in young adulthood (generally in the 20's and early 30's) and decline thereafter. Non-white elderly rates are low, particularly among the older population, and have remained low over time. (McIntosh and Jewell, 1986; Center for Disease Control, 1985).

Virginia Data. Analysis of mortality data on Virginia indicates that the suicide rate for whites was 26.3 for 1978-82, up from 23.5 for 1968-72. The non-white suicide rate was 8.0 for both time periods. The rates for older white Virginians are higher than for older whites in the nation as a whole while the non-white rate is comparable (21.6 and 8.4 for the nation). The increase in suicide rates observed for Virginia's elderly and its white elderly in particular was produced predominantly by the high and increasing levels among white males. White male rates were more than three times higher than any other sex-race grouping (Figure 1.3). Other analysis indicates that 94% of suicide deaths in Virginia are whites.

Figure 1.3 Elderly Virginia Suicide Rates by Race and Sex 1968-72 and 1978-82



Based on analysis of official mortality statistics obtained from the National Center for Health Statistics.

Marital Status Differences. Non-married persons at all ages are more likely to commit suicide than are married persons (Breed & Huffine, 1979). Studies consistently reveal that the widowed elderly are particularly vulnerable to suicide (Berardo, 1970; Bock & Webber, 1972). Megenhagen, Lee, and Gove (1985) found, using 1979 mortality rates, that the divorced population was at highest risk for suicide but less so than in the earlier 1959-61 data. In 1979, divorced females over 65 had a suicide rate that was over two and one-half times that for married elderly females. In all cases married elderly were at lower risk than the other groupings for suicide and those with marital disruptions through widowhood or divorce were at higher risk than those never married.

Virginia Data. In Virginia, mortality data indicates the number of suicides by marital status are highest among the married population at essentially all ages because the largest number of individuals are married. However, when the rate of suicide is calculated, the married of all ages are seen as the lowest or nearly the lowest in suicide risk. Rate approximations indicate that the highest suicide rates for the old are for the divorced population just as for the national elderly as a whole. Case review of records in the Medical Examiner's Office indicated that about half of the individuals were married (54%), 29% widowed and the remainder divorced or never married.

Geographic Differences. As noted above, older Virginians are at higher risk than the nations's old (Rate of 21.7 compared to 19.8). For the nation as a whole, when all ages are combined, Virginia's older population has a rate that is 76% higher (rate=12.3 for all ages, 21.7 for older Virginians). McIntosh (1988) found that Virginia was one of only 10 states that evidenced increases in elderly suicide rates from 1968-72 to 1978-82. Virginia's elderly had a higher suicide rate (23.1) for 1978-82 than found for the elderly in either the South Atlantic (20.3) of the Southern (19.2) region/division in which Virginia is located (See Appendix A).

Within Virginia, analysis of suicide rates for the 136 counties and independently reporting cities or for the 22 planning districts would yield highly unreliable and variable rates due to the small numbers involved for specific counties/cities. (See Appendix A for raw data listing.) The most reliable data are for the larger geographic divisions within the state and this analysis focused on the Health Service Areas (HSA) of Virginia. Only in Health Service Area 1 (Planning Districts 6, 7, 9, 10, 16) were suicide rates higher than for the elderly in the state as a whole. The old in HSA 1 exhibited the highest suicide rates for both the 1968-72 and 1978-82 time periods (23.7 and 29.4 respectively).

Religious Belief Differences. Religiosity has largely been considered in terms of the impact of religious affiliation or church membership on rates of suicide for various geographical populations (Nelson, 1977). Nelson's classic study of institutionalized elderly focused on the intensity of religious commitment to the use of indirect life-threatening behavior (ILTB) (e.g. refusal to eat or drink, or ingest medication) among elderly, chronically ill hospital patients. Nelson's findings indicated that devoutness of religious beliefs among these patients, reduced the potential toward ILTB. The incidence of ILTB did not differ greatly among religious affiliates. Strong religious beliefs nurture feelings of worthiness, and hopefulness which serve to reduce feelings of helplessness (Osgood & McIntosh, 1986).

FACTORS CONTRIBUTING TO ELDERLY SUICIDE

Losses and Stresses of Growing Old. As Barter (1969) noted, with respect to the etiology of elderly suicide: "a precipitating cause may be less obvious and the suicide may appear to be a reaction to a total life situation more than any single event". The multiple losses suffered by the elderly place them under much stress at time of life when they are least resistant and least able to cope. According to Marv Miller (1979), "whether an older person is able to resolve a suicidal crisis or succumbs to self-inflicted death is very much a function of the ability to cope with stress" .

Confronted with the many losses and stresses of growing old, some elderly lose their sense of personal identity and suffer from a decline in self-esteem, lowered self-concept, and a sense of meaninglessness in life. Many become seriously depressed and lose all motivation for working, playing, and even living. Loss, stress, chronic illness, depression and alcoholism are some of the major factors reviewed in this section.

Depression. Depression, the major factor in late life suicide, underlies two-thirds of the suicides in the elderly (Gurland & Cross, 1983). Depression may result from some viral infections or from Parkinson's Disease (Birren & Sloane, 1980). Those who have analyzed suicide notes of individuals of various ages have found that the elderly express a sense of hopelessness and "psychological exhaustion" in their notes (Cath, 1965; Darbonne, 1969; Farberow & Shneidman, 1957, 1970). They are tired of life and tired of living. They have just given up. The sense of rage and anger which is often expressed by younger people in their notes is absent from the notes of older individuals.

> Dr. A, a 66 year old Caucasian male committed suicide by drug overdose. He suffered from heart disease, hypertension, diabetes and kidney disease. He was also being treated for depression and had a history of alcohol and drug abuse. His wife found him in the bedroom after he had retired early one night. He had been drinking vodka, rose wine, and scotch. Moreover, near the body were 25 bottles of medicine for his various conditions, including numerous painkillers, tranquilizers, and anti-depressants. He had a blood alcohol level of .6% and the immediate cause of death was drug overdose.

Alcoholism. Alcohol is a major factor in late life suicide (Blazer, 1982). Many older adults turn to alcohol to relieve depression and loneliness. Ingestion of large quantities of alcohol, however, actually increases depression and anxiety. In an early study of the relationship between alcoholism and suicide in late life, Gardner, Bahn, and Mack (1964) found that alcoholics over 55 years of age were at an especially high risk for suicide.

Chronic Illness and Disease. The importance of physical illness as a factor in suicides has been borne out in studies of suicide in elders who suffer from some illness (Bachelor & Napier, 1953; Sainsbury, 1962; Dorpat, Anderson, Ripley, 1968; and Miller, 1976). Many aged suffer from painful, chronic and often debilitating diseases, such as cancer, diabetes, parkinsonism, diseases of vision and hearing, and stroke. In a 1983 case controlled study of cancer as a cause of suicide by Marshall, Burnett, and Brasure (1983), data indicated that cancer patients were 50-100% more likely than non-cancer patients to commit suicide, providing a strong indication that health status should be considered in future attempts to relate suicide to social environment. Other examples of the impact of illness on suicide are described by Niswander, Casey, and Humphrey (1973) and Osgood and McIntosh, (1986).

While very few studies of suicide in nursing homes have been conducted to date, those who have examined intentional life-threatening behavior in these facilities have identified high risk individuals in such settings. Nelson and Farberow (1980) identified loss of ability to function as the major factor in suicide. However, specific environmental factors which elicit or inhibit overt suicide, suicide attempts, or ILTB among residents of long-term care facilities, however have not been fully investigated and identified in the literature.

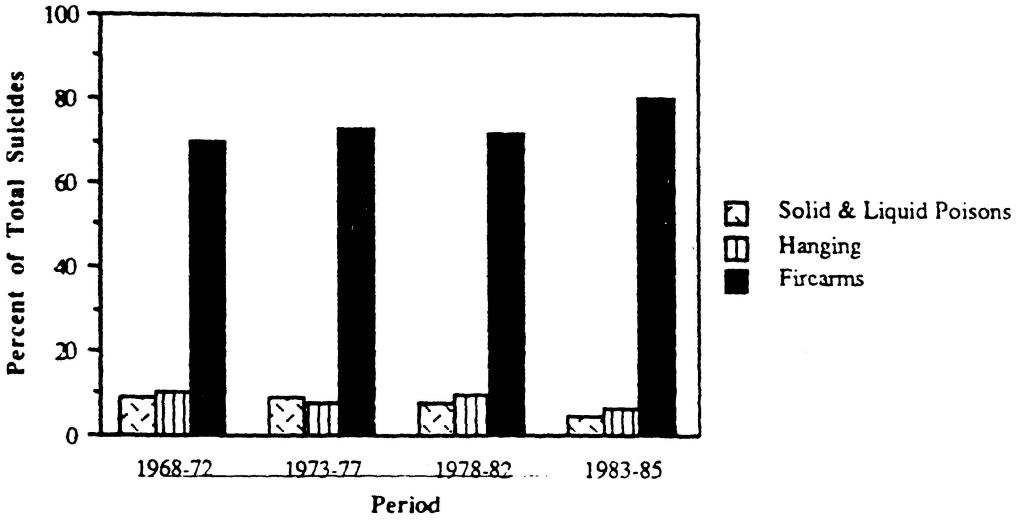
Size of the facility, location, ownership, staff-to-patient ratio, resident case mix, and other facility characteristics have been shown to influence quality of care and patient outcome variables. They also appear to influence suicide attempts or ILTB. Osgood and Brant (1987, unpublished), found that suicidal behavior was significantly less likely to occur in high cost institutions than in those charging less for care. They also found that ownership is a major predictor of suicidal death. Church-related and non-profit corporate facilities exhibited a higher quality of care then proprietary facilities and were less likely to experience suicidal deaths among their residents than were proprietary facilities. Thirdly, size of the facility appears to be a major predictor of suicidal behavior. Large facilities were significantly more likely to have suicides, than were smaller ones.

METHODS USED TO COMMIT SUICIDE

In general, findings on methods used are similar to the overall patterns of suicide methods observed for the nation. However, Virginia is a striking exception in that older Virginians of both sexes employed firearms in noticeably higher proportions than did the elderly in the nation as a whole. Older Virginians killed themselves with firearms in 80.3% of the suicides in the 1983-85 period (Figure 1.4). Older males in Virginia almost exclusively used firearms (87.3%). A majority (50.7%) of older adult females in Virginia who committed suicide did so with firearms; yet for older adult females in the nation, less than one-third (30.6%) used firearms.

The quantitative analysis of the cases investigated by the Virginia Medical Examiner showed that 80% of all suicides of individuals 60 and over were committed using guns. There were also two statistically significant findings. Males 60 and over were significantly more likely than females 60 and over to use a gun to commit suicide. Eighty-six percent of the men in Virginia suicide deaths used guns, compared to only 52% of the women. The "old-old" (75+) were more likely to use guns to commit suicide than were the "young-old" (60-74); and the "young-old" were much more likely to use drugs than were the "old-old". Consistent also with national patterns is the greater utilization of poisons among females than among males. The case review of the sample of records of the Virginia Medical Examiner also revealed a consistently high use of guns (75% of the cases).

Figure 1.4 Suicide Methods Among Virginia's Elderly, 1968-72 to 1983-85



Based on official mortality statistics obtained from the National Center for Health Statistics.

EFFECT OF SUICIDE ON FAMILY SURVIVORS OF SUICIDE

> Mr. K., who was widowed, lived with his stepson and was in treatment for depression. Both Mr. K.'s mother and grandmother had been suicide victims during his childhood. Mr. K. lived next door to the house in which his mother died and was known to sometimes stand at his window and look across to the room where his mother had taken her life. The night before his suicide, Mr. K. was in unusually good spirits, according to his family. On the day of his death, he got up early, washed and dressed. He took his son's rifle from its storage place and shot himself.

While a large amount of research attention has been devoted to the investigation of the act of suicide and the suicidal individual, much less attention has been focused on the survivors left behind in the aftermath. Existing literature on survivors is based on case studies and observations on clinical populations, which seriously limits the general application of findings. Research confirms that individuals bereaved by suicide represent a very vulnerable population. Intense guilt, shame, denial, hostility, depression, social isolation, and withdrawal represent the common sequelae. Survivors of a suicide also have an increased risk of physical and mental health problems, and of suicide themselves, especially those who witnessed the suicide (Andress & Corey, 1978; Cain & Fast, 1966).

A number of factors contribute to the increased vulnerability of survivors. These include: contacts with police and other officials which serve to bring home the circumstances of the death and represent a source of additional stress; unique and difficult aspects of the funeral service and burial occasioned by suicide; blame heaped upon survivors by family, friends, and the community; social stigma and cultural taboo against suicide; and lack of social support offered to survivors.

CONCLUSION

Lack of Public Awareness. Suicide among the elderly is a complex problem and affects different population groups in varying ways. However, it is clear that older persons as a group are at particularly high risk of suicide, higher than other population groups. Furthermore, Virginia's rate of elderly suicides is significantly higher than the nation's as a whole. The effect of life changes which often are associated with the aging process, including chronic illness, intermittent depression, widowhood and loss, and feelings of being a burden to others, can cause suicidal behavior in older adults. The data indicates the need for prevention efforts focused on high risk populations within Virginia. Information needs to be provided to the elderly, their families, the general public, and to professionals in the fields of mental health and aging.

Lack of Data. Available data does not indicate substantive reasons for the high rate of suicide on the part of Virginia's elderly. The data also indicates that specific areas within Virginia have a substantially higher rate than other areas. Again, available data does not indicate adequate reasons for this finding. Analysis also indicates a significant disparity by gender for suicide with male rates greatly exceeding female rates. Finally, the study showed that in Virginia there is a particularly high rate of use of firearms, one of the most lethal methods of suicide. These findings indicate the need for further discussion of the issues and increased efforts to track and analyze the social support and mental health needs of older persons.

Lack of Treatment. The extent of the problem of suicide among Virginia's elderly and the lethality of the methods used indicate the need for professionals in the health, social services, and mental health fields to find new ways of reaching out to encourage older Virginians to seek treatment. Often, the elderly are reluctant to seek counseling through traditional mental health treatment centers and agencies. The physical and social service needs of frail elderly persons can conceal other psychological needs. Limited resources of the human service delivery system as a whole can contribute to a prioritizing of needs which ignores late life mental illness.

SUBSTANCE ABUSE BY THE ELDERLY

Mrs S., 68, had a history of depression and attempted suicide. She suffered from emphysema and atherosclerosis. She had been seen by her doctor the day before her suicide and received a prescription for sleeping pills. Mr S. returned home at 6:00 P.M. and thought his wife was napping; at 9:00 P.M. he called the rescue squad, but she could not be revived. Empty pill bottles and bottles of Scotch were found by the bed. Forty-five (45) vials of prescription medications were sent to the Medical Examiner's Office with the body.

METHODOLOGY

This section of the report summarizes the results of an extensive study of substance abuse among the elderly conducted for the Department for the Aging by Nancy J. Osgood, Ph. D., Associate Professor of Gerontology and Sociology, Virginia Commonwealth University. Dr. Osgood received substantial assistance from Dr. Demetrios Julius, Chief of Psychiatry, Veterans Administration Medical Center; Marcia Lawton, Ph. D., Associate Professor of Rehabilitation Counseling, Virginia Commonwealth University; Dr. David K. Wiecking, the Regional Administrators and the staff of the Office of the Chief Medical Examiner; Wayne Thacker, Saundra Rollins, and Harriete Russell of the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services; Harriet Schuck of the Veterans Administration Medical Center; Paula Moore of the Metropolitan Hospital; Betty Robertson of Charter Westbrook; and Nancy Covey, Kevin McCormack, Kimberly Henley and other graduate students and staff of Virginia Commonwealth University.

The full study included:

1. a review of pertinent literature,
2. a case review and analysis of a sample of 127 alcohol and drug related deaths for individuals over the age of 60 investigated by the Office of the Medical Examiner of Virginia between January, 1987 and August, 1988,
3. a quantitative analysis of 280 alcohol and drug related deaths for individuals 60 and over investigated by the Office of the Medical Examiner of Virginia between January, 1987 and August, 1988,
4. a quantitative analysis of data files on all (10,147) suicide and alcohol and drug related deaths occurring in Virginia between 1979 and 1987 as maintained by the Virginia Center for Health Statistics,
5. analyses of data obtained from 829 individuals who were receiving treatment for alcohol or drug related problems between August, 1987 and July, 1988, in three substance abuse treatment programs in Richmond, Virginia (Veterans Administration Medical Center (VAMC), Richmond Metropolitan Hospital, and Charter Westbrook Hospital).
6. citizen comment on the problem, including two public hearings.

DRUG MISUSE AND ABUSE: NATURE OF THE PROBLEM

Although drug problems have long been recognized and studied among the young, more researchers are now observing and documenting drug-related problems among the aged. Existing literature indicates that substance abuse among the elderly is a serious and increasing problem. While the majority of these drug problems are related to legal drugs, including prescription and over-the-counter (OTC) drugs, there is a small body of literature that suggests a growing population of older illegal drug abusers.

Most available data on drug problems among the elderly is related to abuse or misuse of legal drugs. ("Abuse" is the intentional, non-therapeutic use of a drug, while "misuse" is the inadvertent harmful use of a drug.) Both prescription and over-the-counter drugs are likely to be abused or misused by the aged. Abuse usually coincides with the elder's need to ameliorate psychological stress or physical pain and discomfort. Psychotropic medications are cited as the most often abused category of prescription drugs; sleeping pills, laxatives and aspirin compounds are the over-the-counter drugs most likely to be abused. Drug misuse is related to a variety of factors such as decreased cognitive and physical abilities, lack of physician knowledge and/or follow-up care, loneliness, isolation and stress. Testimony at the public hearing of September 29, 1988 held by the Department for the Aging indicated that cases of multiple medications taken by the elderly was sometimes extremely serious, in one case involving as many as eighty different medications.

The elderly are more susceptible to adverse and toxic effects of medication than are members of the younger population (Nies, Robinson, & Friedman, 1977; Cutler, Zavadil, & Eisdorfer, 1981; Dynes, 1970; Elmore & Rochford 1983; Salzman, VandersKolk, & Shader, 1975). Absorption rates for drugs are impaired in the elderly due to reduced metabolic functions. Physical limitations such as impaired vision and hearing and decreased fine and gross motor coordination, coupled with diminished cognitive functioning, and negative social situations also contribute to drug misuse in this population. 1981). Common practices such as sharing and hoarding medications place the elderly at risk (Soloman and Weiner, 1983). The elderly also may "shop around" to find a physician who will prescribe what they want.

Drug misuse in the elderly is not always the fault of the older individual. Physicians' prescribing values and practices often contribute to the problem. Physicians may fail to effectively monitor dosages or educate the patient regarding the importance of schedules, diet changes, and side effects. Thus the patient may experience therapeutic failure or adverse reactions (Giannetti, 1983; Friesen, 1983). In addition, the elderly tend to have a relationship with more than one physician and more than one pharmacy (Raffoul et al,). This results in the increased potential for adverse reactions from drug combinations with less likelihood of recognition for a long period of time.

Prescription Drug Abuse and Misuse. Older people use far more legal drugs than younger persons. They experience more chronic illnesses and often require medications to cope with and manage the symptoms (Estes, 1977; Butler & Lewis, 1977). The Task Force on Prescription Drugs (1967), Schuckit (1982), and Basen (1977) all report that, although the elderly (65+) constitute only 11 percent of the population, they consume 25 percent of all prescription medications. The Task Force also noted that the average person over 65 years of age acquires three times as many prescribed drugs and spends three times as much for drugs as the individual under 65 years of age. Many authors have cited the fact that the elderly consume an average of two to three prescription medications daily. Frequently the elderly consume more than three prescription drugs daily. As the number of prescription drugs increases, so does the potential for adverse reactions. Wynne and Heller (1973) and Lenhart (1976) found that 20 percent of the patients entering the geriatric service of a general hospital showed evidence of disorders directly related to the effects of prescription drugs. Research by Butler (1975) and Cant (1976) indicated that misuse/abuse of drugs caused 30,000 deaths and 1.5 million hospital admissions among the elderly annually.

Many studies (Chien, Townsend and Ross-Townsend, 1978; Cohen, 1981; Pascarelli and Fischer, 1974; and Petersen and Thomas, 1975) suggest that phychoactives, sedative-like tranquilizers and prescribed pain killers are the prescription drugs most likely to be intentionally abused by the elderly. Stephens, Haney and Underwood (1982) found that the most commonly abused prescribed drugs were analgesics, anti-anxiety agents and sedatives. Furthermore, out of the clients surveyed, only two-thirds were taking their medications correctly. Ziance (1977) reported that 80 percent of the adverse acute drug reactions among the elderly involved tranquilizers or a sedative.

Over-the-Counter Drug Misuse and Abuse. Over-the-counter drugs may be taken alone or in combination with prescription drugs. Evidence suggests that 40 percent of persons over 60 years of age use an over-the-counter drug daily and may account for two of every five drugs taken by the aged. This is a consumption pattern seven times greater than that of young adults (Kofoed, 1985). The most frequently used over-the-counter drugs are sleeping pills (Subby, 1975; Swanson, Weddinge & Morse, 1973), laxatives (Cummings, Sladen & James, 1974) and aspirin compounds (Morrant, 1975).

Older persons may choose to use over-the-counter drugs in place of prescription drugs for a variety of reasons. The elderly person may be less likely to have a relationship with a particular physician due to the physician retiring or dying, or they may no longer be able to afford the physician's fees. The cost of prescription drugs also can lead to increased attempts to self-medicate. Often, older persons have limited mobility and difficulty visiting a physician; therefore, they use over-the-counter solutions. Age-related problems such as arthritis, insomnia, and constipation are frequently self-treated (Kofoed, 1985).

Illegal Drug Abuse. Illegal drug problems have long been acknowledged as significant within the young population, but not among the old. In the past it was generally felt that long-term addicts die or stop their drug abuse before reaching old age (Winick, 1962). However, more recent studies (Capel and Stewart, 1971; and Capel and Peppers, 1978) demonstrate not only the fact that there are older illegal drug abusers, but also that this population is growing. Based on their data, Capel and Peppers projected that "within the next ten years the number of addicts over age 60 would triple or quadruple."

The problem of illegal drug abuse in the elderly population has been underestimated. Certain characteristics of the elderly addicts seem to make them more adept at concealing the drug use. Aged illegal drug addicts tend to take lower dosages of drugs and to use drugs less frequently than do younger addicts (Capel, Goldsmith and Waddell, 1972). Pascarelli and Fischer (1974) found that the older addict will maintain a low profile and avoid harassment, arrest and public attention. The data also indicate that older illegal drug abusers are more likely to be socially isolated. Most investigators agree that abuse of illegal drugs is more common among white males and the "young old" than among females, blacks, or the "old old" (Peppers & Stover, 1979). The studies also demonstrate that the older illegal drug abuser is the younger addict who has survived into the senior years. (Ball and Urbaitis, 1970; and Capel et al., 1972).

ALCOHOL MISUSE AND ABUSE NATURE OF THE PROBLEM

While the first article on alcoholism among the elderly appeared in 1948 (Seliger), only very recently has the literature reflected an appreciation for the numerous complex factors in late life alcoholism and attempted to evaluate their role empirically. One of the difficulties in determining the extent of alcohol abuse among the elderly is that several factors make it likely that they will be omitted from reports of alcohol abuse. The elderly are less likely than the general population to be referred to an alcohol abuse treatment program. Problems at work and marital problems are two common sources of alcohol abuse referrals. Since many elderly are retired and widowed in increasing numbers with age, these referral sources are lost. Drivers convicted of drunk driving violations are often referred to alcohol treatment programs. The elderly drive fewer miles than other adults and are less likely to fall into this category. For these reasons, prevalence data on alcoholism and the elderly may go under-reported.

Alcohol Use. There is a well documented decline with age in the percentage of people who drink. Different studies report varying percentages of alcohol use, but approximately 50% of the 60+ age group abstains from alcohol intake; and the percentage of abstainers increases with age (Bailey, Haberman, & Alksne, 1965; Barnes, 1979; Meyers, Hingson, Mucatel, Heeren, & Goldman, 1985; Goodwin, Sanchez, Thomas, Hunt, Garry, & Goodwin., 1987; Douglass, Schuster, & McClelland, 1988). This is a significant decrease from the 71% of the 30-49 year old

population who drink (Atkinson & Schuckit, 1981). However, reports of the decreased consumption of alcohol among the elderly do vary among studies. For example, Barnes' (1979) survey in Buffalo, New York found that only 31% of the 60 and over group abstained from alcohol. Yet, Meyers et al. (1985), in their survey of elderly Bostonians, found that more than 50% of the population over the age of 60 abstained from alcohol. In another study, 52% of those 65 years old and over reported no alcohol consumption (Goodwin et al., 1987). Douglass et al. (1988) found 42% abstinence in their representative sample and 69% abstinence in their elderly group living in subsidized housing.

The increase in the percent of elderly who abstain appears to begin at 50 and rises sharply in the seventies (Meyers et al., 1985; Barnes, 1979). Elderly females are more likely than elderly males to be non-drinkers (Barnes, 1979; Gomberg, 1980; Meyers et al., 1985; Goodwin et al., 1987). Other factors positively related to abstinence are low levels of education, foreign birth, as well as Jewish and black ethnic heritages (Meyers et al., 1985). This same study also found that widows and widowers were less likely to drink, which is somewhat at odds with the finding of Bailey et al. (1965) of increased alcohol abuse among elderly widowers. Douglass et al. (1988) found no evidence that living alone increased or decreased the probability of alcohol consumption.

Alcohol Abuse. Alcohol abuse is the most common form of substance abuse among the elderly (National Institute of Alcohol Abuse). Estimates of alcohol abuse or alcoholism among the elderly range from 2-10% (NIAA, 1982). Actual prevalence depends on the specific population of elderly. Schuckit and Pastor (1978) estimated that the incidence of alcoholism in elderly patients in nursing homes and hospitals is 15-20%. Schuckit and Miller (1976) diagnosed nearly 20% of the people aged 65 and over in general medicine wards as alcoholics. However, only 9% of the elderly were "active alcoholics", i.e., still drinking.

Elderly men are at much greater risk for abuse of alcohol than elderly women. In one community survey conducted by Rathbone-McCuan and associates (1976) a ratio of 5:1, males to females was found. In discussing alcohol abuse among the elderly, the literature often distinguishes early-onset alcoholics from late-onset alcoholics. There is no clear demarcation of these groups, but any drinking problem that begins after the age of 40 is generally considered to be late-onset. Early-onset alcholics have a history of long-standing and unremitting drinking throughout life. Late-onset alcoholics tend to have no severe antisocial or psychiatric problems or lifestyle disruptions. Zimberg (1974) estimates that about two-thirds of older alcoholics are "early onset survivors" and one-third are "late-onset problem drinkers".

Paradoxically, there is believed to be a significant decrease in the number of lifelong or early-onset alcoholics that persist into old age. Alcoholism is thought to be a self-limiting condition in that chronic alcohol abuse is associated with increased health problems and mortality.

Medical Complications of Alcohol Abuse. The fact that alcohol abuse is a problem for 10% or less of the elderly population does not indicate an insignificant problem. Given the unique health status of the elderly, both alcohol use and abuse are very important issues. The following physical problems are related to alcoholism in the aged: decreased ability to perform motor tasks; profound changes in sleep patterns; a number of diseases such as inflamed intestinal tract, pancreatitis, ketoacidosis, hypetlitemia, fatty liver, gout, alcoholic hepatitis and cirrhosis; decreased resistance to infections such as pneumonia; negative effects on the cardiovascular system resulting in hypertension and cardiomyopathy with heart failure; and insensitivity to pain. Also, the physiological impact of alcohol is significantly greater in elderly individuals. For a given dose of alcohol, a 60 year old individual will have a 20% higher blood alcohol concentration.

Alcohol and Drug Interactions. Drug interaction with alcohol is a serious problem for the elderly. Seventy-five percent of persons 65 and older take at least one prescribed medication (Kasper, 1982). Even those who only drink alcohol occasionally are at risk; heavy drinking and alcohol abuse can create even more serious problems. Most of the major drugs taken by the elderly have adverse interactions with alcohol.

The Alcohol-Suicide Connection. The connection between alcohol abuse and suicide is well documented (Roy & Linnoila, 1986). More than one-third of all suicides in the United States are related to alcohol (NIAAA). Alcohol and suicide are serious related problems among the elderly. Although the association between alcohol and suicide is high in every age-group, it is greatly increased in the elderly (Blazer, 1962). Bienenfeld (1987) reported that elderly alcoholics' risk of suicide is five times greater than nonalcoholic elderly. (Also see Osgood, 1986; McIntosh, Hubbard, & Santos, 1981).

DEMOGRAPHIC FACTORS IN SUBSTANCE ABUSE

Based on analysis of the cases investigated by the Office of the Medical Examiner, Virginians 60 and over, who died from alcohol or drug related causes or who had a blood alcohol content of .08% or greater, were primarily white (72%), male (79%), and in the "young old" (60-74) age group (91%). Most were unmarried (79%). Table 2.1 indicates the demographic characteristics of alcohol or drug related deaths investigated by the Virginia Office of the Medical Examiner. These general patterns were reinforced by other data analyses.

Of those persons over 60 receiving treatment at the three substance abuse treatment centers studied in Virginia only one individual in the 60+ age group was receiving treatment for a drug-related problem during the time period studied. Individuals 60 and over, on the other hand, were receiving treatment for alcohol related problems and accounted for 20 percent of all alcohol abusers. Table 2.2 indicates the characteristics of individuals in substance abuse treatment programs.

Table 2.1: Demographic Characteristics of Alcohol/Drug-Related Deaths from analysis of cases from the Virginia Office of the Medical Examiner January 1, 1987 - August 31, 1988

Characteristic	Number	Percent
Gender		
Male	220	79
Female	60	21
Total	280	100
Race		
Caucasian	201	72
Non-Caucasian	79	28
Total	280	100
Age Breakdown		
60 - 74	254	91
75+	26	9
Total	280	100
Marital Status		
Unknown	20	7
Married	98	35
Divorced	49	18
Widowed	73	26
Never Married	40	14
Total	280	100
Region		
Central Virginia	114	41
Northern Virginia	26	9
Tidewater	54	19
Western Virginia	86	31
Total	280	100

*All percentages are rounded.

Table 2.2: Demographic Characteristics of Individuals in Substance Abuse Treatment Programs in Virginia August 1, 1987 - July 31, 1988

Characteristic	Total Number	Percent
Gender		
Male	722	88
Female	102	12
Total	824	100
Race		
Caucasian	372	56
Non-Caucasian	293	44
Not Defined	2	0
Total	667	100
Age Group		
< 26	62	8
26 - 45	475	57
46 - 59	143	17
60+	147	18
Total	827	100
Marital Status		
Married	272	33
Unmarried	285	34
Not Defined	272	33
Total	829	100

*All percentages are rounded
*Inconsistent N's result from missing data

Age Factors. Table 2.3 presents an age breakdown for the sample population of alcohol and drug-related deaths in Virginia. Twenty-six percent of all suicides and drug-related deaths were 60 and over. Furthermore, persons 60 and over accounted for thirty-six percent of the alcohol related deaths.

Table 2.3: Age Breakdown for Alcohol- and Drug-Related Deaths from Virginia Vital Statistics Records, 1979 - 1987

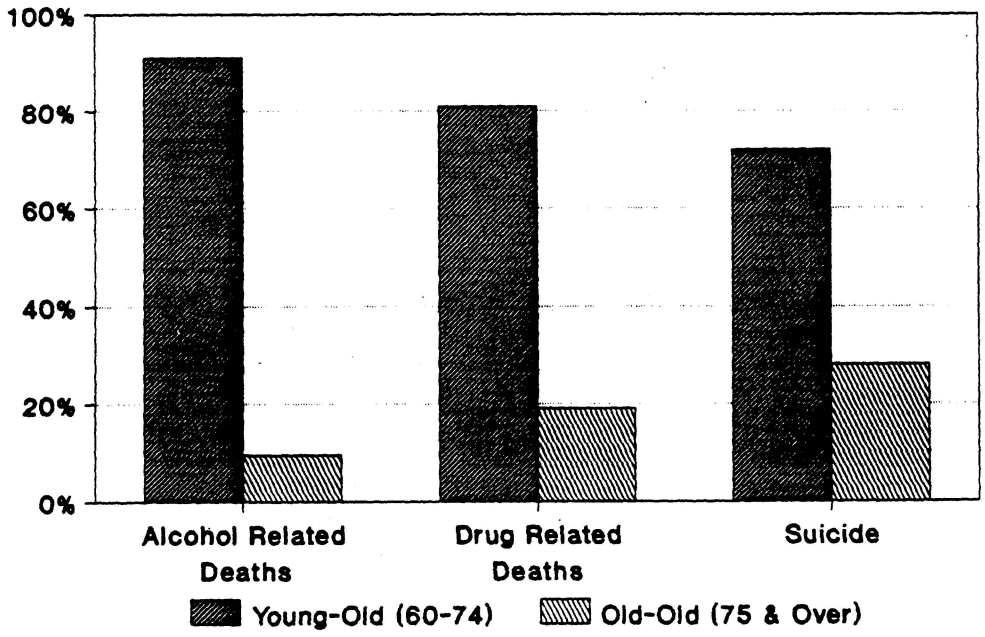
Factor	Drug-Related Number	%	Alcohol Related Number	%	Suicides Number	%	Total Number	%
Age Group								
1 - 17	1	0	0	0	245	4	246	2
18 - 29	32	32	46	1	1871	27	1949	19
30 - 59	42	42	2017	63	3227	47	5286	52
60 - 74	21	21	1025	32	1087	16	2133	21
75+	5	5	107	4	421	7	533	5
Total	101	100	3195	100	6851	100	10147	100

Differences Between Age Groups Under 60 and 60 and Over. Several statistically significant differences were found between age groups (under 60 and 60+) when looking at those individuals in substance abuse programs. Furthermore, a comparison of alcohol and drug-related deaths and suicides reveals that Virginians under 60 were considerably more vulnerable than those 60 and over for for all three types of death. When only the population over 60 is considered, of the three types of death, those 60 and over were considerably more vulnerable to alcohol related deaths. A steady pattern of increase in alcohol related deaths for those 60 and over was noted between 1979 and 1986, with a decrease between 1986 and 1987.

Differences Between Young, Middle-Aged, and Old When individuals under the age of 26, 26 to 59 years old, and 60 and over in the treatment programs studied in Virginia were compared, gender, racial, and marital status differences were found. Although males of all ages are considerably more likely to be receiving treatment for alcohol related problems, females in the youngest and oldest age groups are more likely to be in treatment for alcohol abuse than are females in the middle age group. By contrast, males between the ages of 26 and 59 are much more likely than males in the under 26 or 60+ age group to be in treatment for alcohol related problems.

Differences Between "Young Old" and "Old Old" Among the 60 and over age group statistically significant differences were identified, in the analysis of Virginia vital statistics, between the "young old" (60 to 74) and the "old old" (75+). Although the "young old" were more "at risk" for all types of death, they were considerably more "at risk" for alcohol related deaths. (See Figure 2.1.) Ninety-one percent of all alcohol related deaths among those over 60 occurred in the 60 to 74 year old age group, compared to only nine percent in the 75+ group. Eighty-one percent of all drug-related deaths among those over 60 occurred in the "young old" group, compared to only 19 percent in the "old old" group.

Figure 2.1: Difference in Cause of Death Between "Young-Old" and "Old-Old" from Virginia Vital Statistics Records (1979-1987)

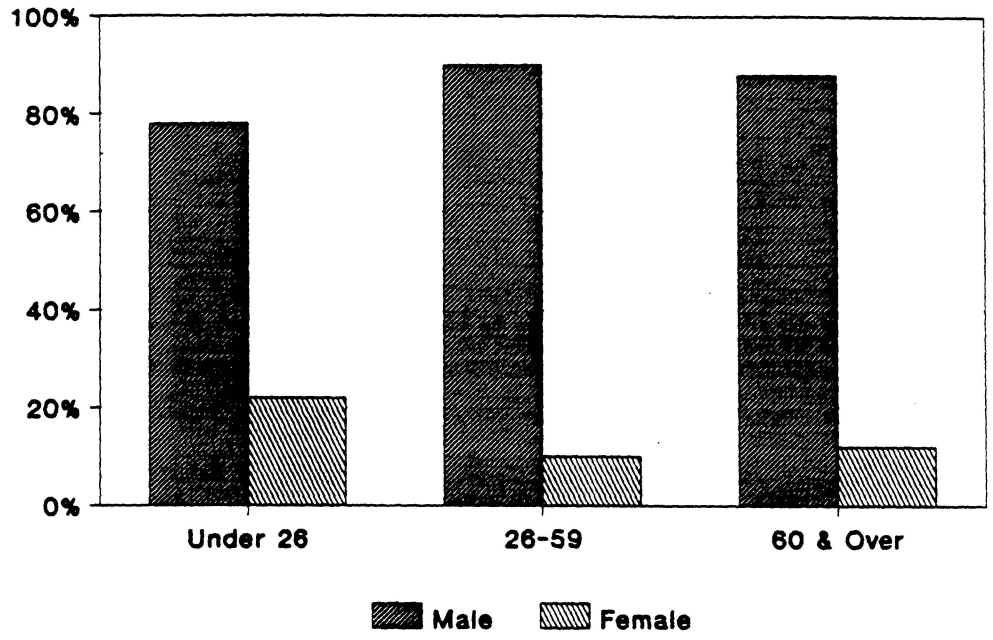


Data from Vital Statistics Records
1979 - 1987

Gender Factors. One major difference discovered between alcohol and drug related deaths was that males were much more "at risk" for suicide and alcohol related deaths than were females; however, in the case of drug-related deaths males and females were at approximately equal risk. This pattern was found for individuals under 60, as well as for those 60+. Males accounted for 74 percent of all alcohol related deaths.

Analyses of treatment programs revealed that males of all ages are considerably more likely to be receiving treatment for alcohol related problems than females. Only twelve percent of elderly who were receiving treatment were female (See Figure 2.2).

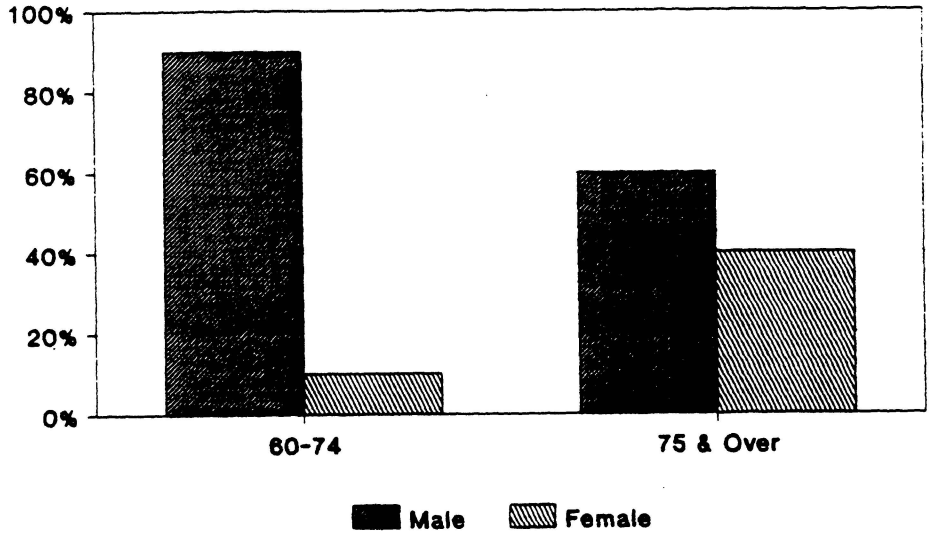
Figure 2.2: Gender Differences in Alcohol Abuse Between Different Age Groups in Selected Treatment Programs in Virginia*



* Based on data obtained from medical records in treatment facilities.

However, further analysis revealed a statistically significant gender difference in alcohol abuse between "young old" (60 to 74) and "old old (75+) individuals in treatment. In the "old old" group considerably more females are being treated for alcohol abuse than in the "young old" group. Ninety percent of individuals 60 to 74 years of age, who are being treated for an alcohol related disorder are males compared to only 10 percent females. In the 75 and over group, on the other hand, only 60 percent were males and 40 percent were females (See Figure 2.3).

Figure 2.3: Gender Differences in Alcohol Abuse Between "Young Old" and "Old Old" in Selected Treatment Programs in Virginia*

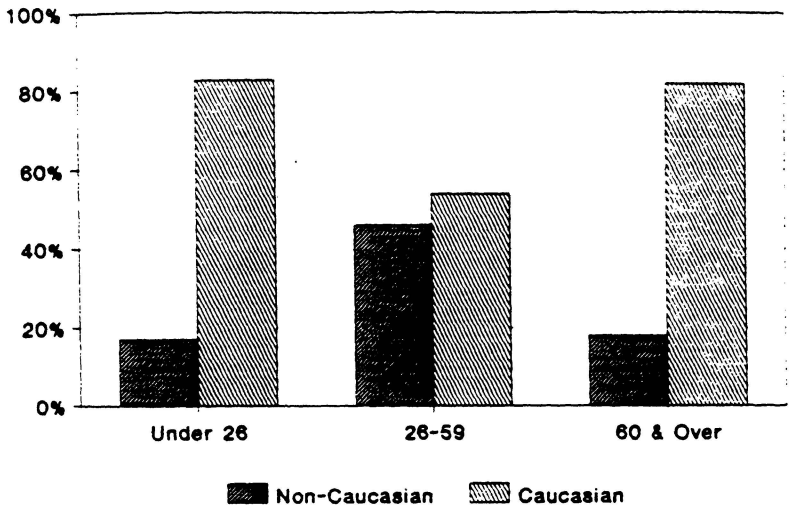


* Based on data obtained from medical records in treatment facilities.

Racial Factors. Differences in race were found in alcohol related deaths by age group. Caucasians were more vulnerable in both the under 60 and the over 60 years of age groups; however, the difference was more pronounced in the older age group. Similiar racial differences between age groups were also found for drug-related deaths.

A comparison of racial differences between the three age groups revealed that, although Caucasians are more vulnerable in all three age categories, the racial difference is much more pronounced in individuals under 26 and those 60 and over than among those 26-59 years of age (See Figure 2.4).

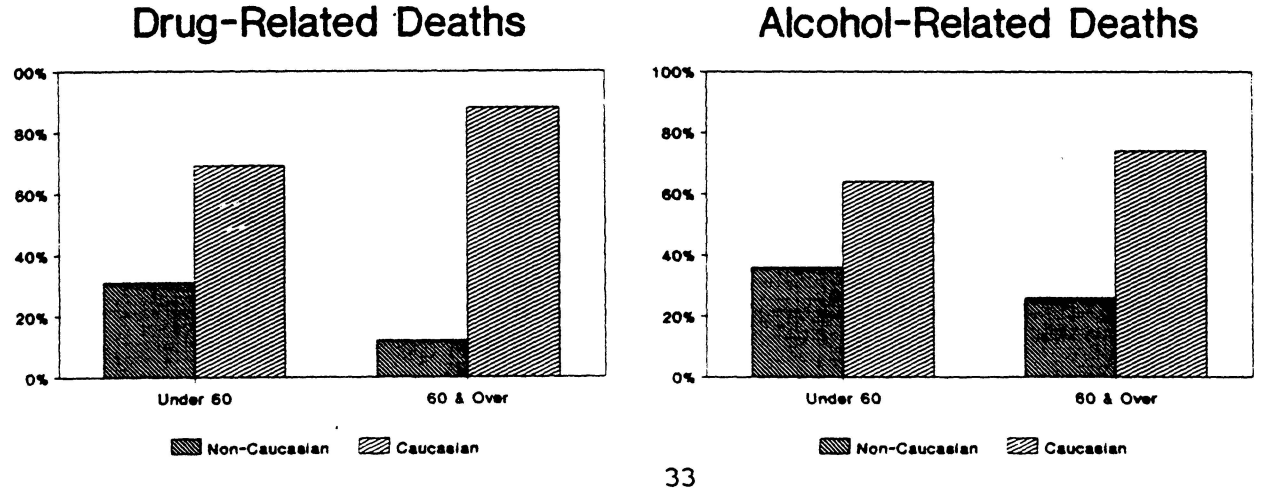
Figure 2.4: Racial Differences in Alcohol Abuse Between Different Age Groups in Selected Treatment Programs in Virginia*



* Based on data obtained from medical records in treatment facilities.

Similar patterns of racial differences in cause of death were also found in both age groups based on analysis of Virginia Vital Statistics. Caucasians 60 and over were much more likely to die from alcohol or drug-related deaths and suicide than were non-caucasians in the 60+ age group. Seventy-four percent of all alcohol related deaths among those 60 and over were caucasian, compared to 26 percent non-caucasian. Eighty-eight percent of all drug-related deaths in those 60+ were caucasian; whereas, only 12 % were non-caucasian. (See Figure 2.5)

Figure 2.5: Racial Differences in Cause of Death for Individuals Under 60 and 60 and Over From Virginia Vital Statistics (1979-1987)



Marital Status Factors. In individuals 60 and over married males are at considerably more risk than married females, based on the data obtained from the study of treatment centers in Virginia. Similarly, unmarried males are at considerably greater risk than unmarried females. Unmarried females are at greater risk than married females. An opposite pattern characterizes males in which married males are at considerably greater risk than unmarried males.

Widowed females 60 and over were considerably more likely to die from alcohol or drug related causes than were widowed males 60 and over. Furthermore, single or divorced males 60+ were at greater risk of such death than were single or divorced females 60+. Forty-eight percent of widowed females, compared to only 20 percent of widowed males, died from alcohol or drug-related causes. Twenty percent of divorced males, but only eight percent of divorced females, died from such causes.

CONCLUSION

Lack of Data. The research summarized above provides preliminary documentation of the extent and nature of the problem of substance abuse by the elderly in Virginia. Information on the extent of the problem of drug abuse is particularly lacking from human services documentation systems. Further efforts are needed to develop a greater knowledge of the drug and alcohol misuse/abuse patterns of older Virginians and to develop an action plan to address the problems.

Lack of Public Awareness. Although there are national campaigns against drug use and abuse, the risk of misuse and abuse for the elderly as a group has not received adequate attention. The factors of aging, such as metabolic and physiological changes, when combined with a chronic illness, make the elderly especially susceptible to drug misuse. The severity of the stress of the life changes associated with aging further encourage the potential for drug and alcohol misuse and abuse, such as how reduced income leads to the problem of sharing medications. However, these factors may also serve to mask the results of inappropriate use of prescriptions and over-the-counter medicaiton. There is a lack of awareness on the part of the elderly and their families of the potential dangers of extensive use of prescriptions and over-the-counter medications and of the benefits of alcohol and substance abuse treatment.

Lack of Professional Awareness. The elderly consume more than 25% of all prescription medicines, but monitoring systems which are needed to prevent excessive dispensing of drugs and to check on proper use of dosage are not generally utilized as much as possible. Medical personnel are sometimes unaware of the full range of conditions for which the patient is being treated. Furthermore, because the elderly do not seem to be perceived as a high risk group, special efforts to reach out to this population are lacking. As noted above, only one person over the age of 60 had been treated in the substance abuse treatment centers over the time period studied.

IMPACT OF FAMILY CAREGIVING ON EMPLOYEE WORK PERFORMANCE

METHODOLOGY OF THE STUDY

This section of the report is a study of adult-dependent care in Charlottesville's work force conducted by Gordon Walker, Executive Director of the Jefferson Area Board on Aging. Substantial help and support was provided by the Darden Graduate Business School of the University of Virginia and the Charlottesville-Albemarle Chamber of Commerce and the Charlottesville area employers listed in the study. Assistance was provided by Teresa L. Foster, Anthony J. Baglioni, Jr., Mark Reisler, Janet Abraham and Ed Jones.

INTRODUCTION

Today one person in eight is over age 65, but by the year 2025 the ratio will climb to one person in five. Persons turning 65 today can expect to live another 16 years, and the prospect for greater longevity continues to rise. The fastest growing segment of the elderly, those 85 and older, will almost double in the next 20 years. It is in these later years of life, as prolonged dependency becomes more commonplace, that persons are likely to need help with basic activities of daily living. Although 6% of persons over age 75 and 22% of persons over age 85 live in nursing homes, the large majority of older persons needing help live in their own home or with a family member.

Over the years, gerontological research has consistently shown family members to be the primary caregivers of the frail elderly. Family members provide from seventy to eighty percent of all in-home care. Increasingly, the capacity to sustain this level of care has been affected by social transitions that cut across many public concerns.

Why is care of the elderly by families a growing concern?

* The number of baby boomers, a group sometimes identified as the sandwich generation, are caught between caring for their children and their aging parents.

* In the 1950's, 75% of families consisted of a father who worked and a mother who stayed home with the children, today, only about 10 percent of families fit this mold.

* Geographic mobility of the American population is creating numerous long distance families.

* As recently as 1975, 30.8% of married women with children one year or younger were in the work force, now 49.8% of these women work.

* The increasing divorce rate is creating fragmented and redefined families.

* People are living longer due to advances in medical technologies and improved access to health care during their life times.

* Approximately 10% of all persons over age 65 need help with basic activities of daily living and the numbers increase as persons live longer.

* Families, particularly daughters, continue to be the predominant givers of care, and most of these women are now in the work force.

The responsibility of rendering care on a daily basis can pose considerable problems for the working family member who must serve as the first line of support to an aged relative or friend. As a result, the caregiver's employer is also affected because caring for a dependent family member often has dramatic implications for a worker's productivity, health, job level, and financial status. Some problems associated with caregiving are absenteeism, tardiness and diminished work performance. Often, the employed caregiver has no choice but to use work time to arrange and coordinate care for an elderly family member. This issue is likely to impact on most employers as the number of women in the work force expands and as the number of elderly and disabled requiring family care continues to grow.

Recent studies of major American corporations have shown that 20 to 28% of the workers studied provide care to an elderly relative at least 10 hours per week. Women outnumber men 2 to 1 as primary care givers and they supply three times as many hours of help per week than their male counterparts. A 1982 National Long-Term Care Study found that 11.6% of all care giving daughters had quit their jobs to take are of an elderly parent. Those who had quit their jobs, more than any other group of women employees, had worked because they and their families needed the income.

Interest in learning the extent family caregiving issues influence work responsibilities and vice versa, led the Jefferson Area Board for Aging (JABA) to conduct a study of ten large public and private organizations with a combined work force of approximately 10,500 in the Charlottesville area. (See section on survey findings for the list of the participating organizations).

There were four major goals of this study:

1. To identify family care responsibilities of employees in various private and public organizations.

2. To determine to what extent these caregiving responsibilities affect job performance.

3. To identify the different types of assistance these caregivers could use to help balance satisfactory job performance and caregiving responsibilities.

4. To educate employers and the public regarding employee/ family caregiver needs.

Prior to the distribution of survey instruments to employees, JABA staff met with the personnel directors of participating organizations. Due in large part of their cooperation and assistance, nearly 3,000 questionnaires were returned. Although the full study, conducted early in 1988, involved both child care and eldercare concerns, this report will focus on those respondents who provide care to an adult family member.

SURVEY FINDINGS

Incidence of caregiving

The ten organizations selected to participate in this study vary in type of business, location, and number of persons employed (a total of 10,482 full and part-time employees). More than 27% (2,809) of the combined work force of these organizations returned questionnaires. Of these survey respondents, 266 (9.5%) provide care to adult-dependents.

Table 3.1

Summary of Survey Respondents

Organization (type of business)	# of Employees	# of respondents (% of workforce)	# of Adult-Dependent Caregivers (% of respondents)
Albemarle Co. and Schools	1700	654 (38%)	38 (6%)
Centel (telecommunications)	750	228 (30%)	27 (12%)
Charlottesville Schools	850	366 (43%)	34 (9%)
City of Charlottesville	736	212 (29%)	25 (12%)
Conagra (food processing	769	57 (7%)	9 (16%)
Frank Ix & Sons (textiles)	410	44 (11%)	4 (9%)
General Electric - Fanuc (electronics)	905	238 (26%)	17 (9%)
Klockner-Pentaplast (plastics)	370	81 (22%)	9 (11%)
University of VA Hospital	3,752	827 (22%)	87 (10%)
Virginia Power (public utility)	240	101 (42%)	16 (16%)
TOTAL	10,482	2,809 (27%)	266 (9.5%)

Caregiver Demographics

As Table 3.2 illustrates, more than two-thirds of the respondents who care for adult-dependents are female. They have an average age of 44 years, with 90% aged 30 or older. The majority are white (79%), have had at least some college education (64%), and are married and living with their spouses (67%). One-third, however, cope with their caregiving responsibilities without the help of a spouse.

Table 3.2
Caregiver Demographics

Sex		Race			
Male:	31%	White:	79%	Elementary school:	2%
Female:	69%	Black:	15%	Middle school:	5%
		Other:	6%	High school diploma:	28%
				Some college:	21%
				College degree:	22%
				Advanced degree:	21%

Employment and Income

The adult-dependent caregivers who responded to this survey represent a variety of occupations. Table 3.3 categorizes them by job level and provides additional employment and income information.

Table 3.3
Employment and Income Data

Job level	Percentage of caregivers
"Blue collar" workers	33%
supervisors, managers, administrators, & executives	26%
doctors/nurses, professionals	17%
teachers	15%
office workers	less than 1%
other	9%

Full-time employees: 97%
Working at more than one job: 10%
Married respondents with wage-earning spouses: 78%

Family's annual income	Percentage of caregivers
under $15,000	10%
$15,000 - $24,999	23%
$25,000 - $34,999	24%
$35,000 - $49,999	22%
$50,000 - $74,999	17%
Over $75,000	4%

The majority of adult-dependent caregivers (57%) have annual family incomes under $35,000, supporting an average household size of 3.1 persons. This latter figure may be misleading. It is important to note that 56% of the adult-dependents do not live in the caregiver's home, many of whom (36%) may receive financial support from an employee caregiver.

Characteristics of Adult-Dependents

As Table 3.4 indicates, mothers constitute over a third of the adult-dependents receiving some type of care, while spouses comprise 14%. Almost half (44%) live in the caregiver's household, and of those who do not, 54% live in the same building, the same neighborhood, or the same town. Their median age is 72 years, and they confront a number of physical disabilities, with high blood pressure/heart disease and difficulty with vision and hearing being most prevalent. (See Table 3.4).

Table 3.4
Adult-Dependent Characteristics

Relation of Adult-Dependent to caregiver	Percentage of Adult-Dependents
Mother	37%
Spouse	14%
Mother-in-law	10%
Father	10%
Grandmother	7%
Father-in-law	3%
Non-relative	3%
Aunt or Uncle	2%
Grandfather	1%
Other	13%
Living Arrangements of Adult-Dependents	
With respondent	44%
Alone	24%
Alone with spouse	9%
In a nursing home	6%
With another relative	6%
Other	10%

Table 3.4 (cont'd)

Adult-Dependent Characteristics

Adult-Dependents' Health Problems*	
High blood pressure/heart disease	42%
Difficulty seeing	27%
Difficulty hearing	26%
Poor bladder/bowel control	22%
Serious illness (cancer, Parkinson's Disease, etc.)	19%
Breathing Disorders (asthma, emphysema, etc.)	18%
Problems eating (badly fitting dentures)	13%
Total or partial paralysis	7%
Missing or nonfunctional limbs	7%
Broken bones	3%
Other	30%

*multiple responses accepted

Caregiving Responsibilities

Thirty-five percent or more of the adult-dependent caregivers help with housekeeping, management of finances, personal care, transportation to medical appointments, and providing companionship. Thirty-six percent also provide direct financial support. (See Table 3.5.) Four in ten caregivers indicate that the adult-dependent has no system of friends or support outside of that provided by the respondent. Six in ten caregivers must manage their caregiving responsibilities without additional help, and 60% rely on this source quite a lot of the time or more often.

Table 3.5
Type of Care Provided*

Housekeeping	60%	Personal care	37%
Companionship	57%	Providing direct financial support	36%
Management of finances	48%	Giving medicine	25%
Transportation to medical appointments	42%	Other	14%

*multiple responses accepted

Although 65% of adult-dependents contribute money toward their own care, the cost of providing quality care is still prohibitive for many caregivers. Respondents report that cost and availability are the most influential factors affecting the quality of care they are able to provide while they work. (See Table 3.6.) Almost two-thirds of the caregivers, however, indicate a willingness to help pay for services if adult care were made more available.

Table 3.6*
Factors Affecting Quality of Care
Respondents is Able to Provide While at Work

Factor	Percentage Finding Factor Influential
Availability	39%
Cost	29%
Distance of care site to home	15%
Transportation	13%
Distance of care site to work	9%
Other	7%

*multiple responses accepted

Balancing Caregiving Responsibilities with Work

In balancing work and family responsibilities, more than one-quarter of the respondents (28%) experience stress on the job much of the time or more. Four in ten (39%) experience stress at home much of the time or more. They also report encountering an average of 3.8 problems at work in the past year due to their caregiving responsibilities. As Table 3.7 illustrates, the problems cited most frequently include: having dealt with family matters on the phone (66%); having been late for work or leaving early (65%); having missed work to stay home with a sick adult-dependent (46%); and having to take personal leave (35%). In addition, they report having missed an average of more than 15 hours of work in the last six months due to their caregiving responsibilities.

Table 3.7*
Problems Encountered by Caregivers in the Last Year Due to Caregiving Responsibilities

Dealt with family matters on the phone	66%
Been late for work or left early	65%
Missed work to stay home with a sick adult-dependent	47%
Taken personal leave	35%
Made up unproductive time during breaks, lunch, or at home	31%
Called in sick	28%
Changed work schedule	21%
Gave up paid overtime	11%
Considered quitting job to stay home with adult-dependent	13%
Left a job	7%
Refused a more responsible position	7%
Turned down a transfer to a new job	5%
Turned down a promotion	5%

*multiple responses accepted

Satisfaction with Current Arrangements

Despite the problems encountered in providing care to adult-dependents, four in ten caregivers (41%) do not feel that finding other care is necessary, and have not reported taking any steps to find such care. (See Table 3.8.) Thirty-nine percent are very often or always satisfied with their current care arrangement. However, about one in five are dissatisfied either always or very often.

Table 3.8
Extend of Planning Done to Fine Other Care

None; don't consider it necessary	41%
Have discussed a little, but have taken no steps to find such care	14%
Have discussed some, and have taken steps (e.g., writing or calling for information)	20%
Have made application(s) and are waiting to hear more	3%
Adult-dependent is on a waiting list for care services	3%
Do not know	3%

Needs of Caregiving Employees

Caregivers of adult-dependents were asked in what ways employers could help employees manage their work and family responsibilities. As either their first or second choice, the majority (57%) of the respondents believe their employers should explore ways to help them deal with their caregiving needs. Fifty-five percent feel that taking a flexible approach to work scheduling and working patterns would be the most helpful. Table 3.9 illustrates how helpful different solutions would be to caregivers of adult-dependents.

Table 3.9
Ways Employers Could Help Employees
Manage Their Work and Family Responsibilities

	1st choice	2nd choice
-A flexible approach to work scheduling & working patterns	42%	13%
-Educational seminars for employees on work & family issues	8%	10%
-Training to help supervisors understand & deal with the work/family issues of their employees	18%	23%
-Exploring ways to help employees deal with their caregiving needs	21%	36%

CONCLUSIONS

While it is not possible from this study of self-selected respondents to extrapolate with precision the number of adult caregivers in Virginia's work force, one can make a number of inferences from the data with a strong degree of confidence.

Adult caregiving impacts many working people within the Commonwealth. The study surveyed ten employers engaged in a variety of endeavors in both the public and private sectors. Although the percentage of self-identifying adult caregivers ranged from a high of 6.7% of the work force at Virginia Power to a low of 1% of employees at Frank Ix and Sons, the evidence indicates that it is very unlikely that any midsize or large employer in the Commonwealth is immune from employees who confront significant adult caregiving responsibilities. With the rapid growth of the elderly population in localities throughout the state, the number of Virginians who provide care to their elderly parents, relatives, and

spouses will grow dramatically in the years ahead. In barely more than two decades 76 million members of the "baby boom" generation nationwide will be more than 55 years of age. This must serve as a sobering statistic for the nation and the Commonwealth, in as much as the work force of tomorrow will carry the burden of caring for this burgeoning group of senior citizens.

Women are the primary caregivers and often provide adult and child care simultaneously. Women are more than twice as likely to serve as caregivers then men. Moreover, an important segment of caregivers identified in this study, 44%, provide adult and child care simultaneously. Mainly female, members of this group, the so-called "sandwich generation," confront enormous and unceasing daily challenges as they seek to support and sustain not only their own children but also, in increasing numbers, their parents. The typical adult caregiver identified in this study is a 44 year old married female who works full-time and whose family income is in the $25,000 to $35,000 range. It is important to point out, however, that one-third of the adult caregivers are not currently married and must shoulder their caregiving responsibilities alone. Ten percent of the respondents, in fact, held second jobs to augment their income.

The adult care recipient is usually a parent or parents-in-law who lives with or nearby the caregiver. The results of this survey permit us to paint a demographic profile of adult care recipients as well as providers. Almost half of the adult-dependents identified in this study are the mothers or mothers-in-law of the caregivers, 13% are fathers or fathers-in-law, 14% are spouses, 8% grandparents, and the remainder (19%) are other relatives or non-relatives. The median age of dependent adults is 72.5 with the oldest being 98. In nearly half of the cases in this study, the adult dependent resides with the caregiver. Of those adult dependents who do not live with the caregiver, 36% live in the same general area.

Adult-dependents suffer from a myriad of disabilities. Heart disease and high blood pressure are the most commonly identified problems, afflicting 42% of those identified. More than a quarter have impaired sight or hearing, and almost one in five have a serious illness such as cancer or Parkinson's disease. Twenty-two percent of adult dependents suffer from incontinence.

Given the prevalence of severe health problems among adult-dependents, it is not surprising that most caregivers are providing critically needed help with one or more of their dependent's essential aspects of daily living. The forms of help range from housekeeping (60%) to dispensing medications (25%). Moreover, almost half of caregivers must actively manage their adult dependent's finances, and 36% provide them with direct financial support. Companionship is also a key element in the services caregivers provide. Approximately four out of ten adult dependents have no system of friends or support independent of the caregiver. In addition, about half of the adult-dependents receive no help in carrying on their essential daily activities from any outside source other than the caregiver.

Most caregivers find current care services inadequate. The study reveals some indication of the shortcomings of services available. Less than 40% of the caregivers are satisfied with the current care arrangements they are able to provide for their adult dependent. They cite availability (39%), cost (29%), distance to their homes (15%), and lack of transportation (13%) as the most significant factors affecting the quality of care. The shortcomings in available adult services not withstanding, 60% of the caregivers rely on help for their dependent from an outside source in order to have the freedom to maintain their jobs.

The challenge of balancing work and family responsibilities is a difficult one for most caregivers. The data collected in this study are illuminating with respect to the impact of adult caregiving responsibilities upon employees and their job performance. Sixty percent of the respondents reported that balancing work and family responsibilities created stress on the job for them some of the time. An additional 27% felt such stress at work much of the time or continually.

The effect of adult caregiving responsibilities on workers' job performance and productivity is manifested in a number of ways. Most significantly, adult caregivers missed an average of 15.1 hours from work during the last six months as a direct result of their caregiving responsibilities. Within the previous year, almost half of the respondents had to miss work to stay home with an ill dependent, 65% had been late or had to leave their jobs early, 66% spent work time on the phone to deal with family matters, and 21% had to alter their work schedules on a permanent basis. Often, employees are using their time off to provide care rather than enhancing their own mental health and well being. Needless to say, these absences and losses of valuable work time translate into diminished productivity and considerable economic cost to employers. In addition, caregiving responsibilities for some employees can have a marked impact on their job longevity and career development progress. More than 20% of the respondents had considered quitting their current job to either find one with more flexible hours or to stay at home with their dependent full time. Caregiving responsibilities had caused 5% of respondents to turn down a promotion and 5% to refuse a transfer to a new position.

Adult caregivers believe that their employers can take steps to help alleviate the stress of balancing work and family pressures. Almost six out of ten caregivers feel that employers should actively explore ways to help employees deal with caregiving needs. One method preferred by caregivers would be for employers to develop a more flexible approach to work scheduling and work patterns. A second preferred method would be employer-sponsored training or supervisory personnel to help managers understand and deal with the work/family conflicts of their employees. In an effort to enhance productivity, it would be prudent for employers to modify personnel policies and redesign benefit plans to help meet the needs of caregiving employees, needs that will become more acute due to demographic trends.

Further study is needed to determine caregiving needs of blue collar workers. While the data from this study appear to reveal that, currently, adult caregiving responsibilities are more prevalent among highly educated professional and white-collar workers (21% of the adult caregivers had graduate degrees, 22% college degrees, and 21% some college) than among blue-collar and less skilled employees (56% of the adult caregiver respondents held professional or middle management positions or above), such a conclusion must be advanced with great caution. One probable explanation for the seeming gap between these segments of the work force is that self-reporting through the medium of a fairly lengthy written survey instrument is less likely among blue collar workers. To obtain greater insight into the extent of adult caregiving among blue collar workers as well as the impact of caregiving on their lives, an in-depth oral interview survey undertaken on a one-to-one basis is called for. Such a method, when combined with adequate employer encouragement, might well reveal that the proportion of employees who provide adult care varies little across job and income categories of workers.

The recommendations and plan of action suggested by the researchers to address the problems discovered in the course of this study are contained in Appendix B. Although the recommendations are based on only one area of the state, they have substantial potential for applicability statewide.

STUDY OF
SUICIDE AMONG THE ELDERLY
SUBSTANCE ABUSE BY THE ELDERLY
THE IMPACT OF FAMILY CAREGIVING ON EMPLOYEE WORK PERFORMANCE

RECOMMENDATIONS

Recommendation 1:

The Department for the Aging, in conjunction with the Department of Mental Health, Mental Retardation and Substance Abuse Services, the Area Agencies on Aging and the Community Services Boards, should develop a State Suicide and Substance Abuse Plan for the Elderly to be implemented by July 1, 1990.

The plan should include the following components:

A. Research to determine the reasons for the higher rates of elderly suicide in Virginia and the frequent use of firearms.

B. Education for:
* The elderly in the use of drugs and ways to deal with stress, depression, changes and loss to avoid suicidal tendencies;
* The family to enable them to recognize signs of concern regarding potential substance abuse/misuse and suicide tendencies;
* Professionals to assure awareness and coordination of services,
* The general public to increase awareness of the needs and concerns of the older population.

C. Early Detection and Prevention:
* Training in early detection for appropriate professionals;
* Outreach targeted to high-risk populations.

D. Service development:
* A plan to target resources to meet these areas of concern by all human service agencies;
* Documentation of the need for additional services.

E. Evaluation:
* Plan to be evaluated two years after its implementation.

Recommendation 2:

The Department for the Aging, in cooperation with the Department of Labor and Industry, the Department of Personnel and Training, and members of Virginia's business community, should develop a Plan of Cooperation to provide guidelines to employers on ways they can assist caregivers in the workforce. This plan should be implemented by July 1, 1990 and should include:

A. Materials to educate employers on the problems faced by caregiving employees and the impact of these problems on productivity.

B. Options for employers to use in designing personnel policies,

C. Educational materials to be used by employers to train their management and supervisory staff to deal with employees' concerns and stress as they provide care to a dependent while working.

D. Educational materials which can be made available at the work place to provide information and support to caregivers.

E. Development of a list of services needed in each community to assist caregivers. This list should be used to target resources and to document the need for additional services.

APPENDIX A

SUICIDE AMONG THE ELDERLY

U.S. Elderly Suicide: State Changes 1969-72 vs. 1979-82
From McIntosh (1988)

Appendix Table 1
Suicide Among Virginia's Elderly (65 and above):
Individual Counties and Independently Reporting Cities, 1968-85

County/City	Number of Suicides				1968-72 Mean Annual		1978-82 Mean Annual	
	1968-72	1973-77	1978-82	1983-85	No.	Rate	No.	Rate
Accomack County	3	7	5	5	0.6	13.4	1.0	19.2
Albemarle County	2	10	10	2	0.4	10.8	2.0	45.4
Alexandria city	12	10	12	5	2.4	32.6	2.4	25.4
Alleghany County	1	0	1	1	0.2	18.9	0.2	13.2
Amelia County	4	1	1	0	0.8	92.4	0.2	19.0
Amherst County	4	2	2	0	0.8	34.7	0.4	13.2
Appomattox County	4	1	0	1	0.8	0.7	0.0	-
Arlington County	12	24	18	11	2.4	17.6	3.6	20.4
Augusta County	0	2	3	4	0.0	-	0.6	10.2
Bath County	2	1	3	0	0.4	58.6	0.6	75.7
Bedford County	1	7	5	5	0.2	7.0	1.0	25.1
Bedford city	4	3	1	3	0.8	79.7	0.2	14.2
Bland County	1	0	2	1	0.2	31.5	0.4	52.6
Botetourt County	1	3	3	3	0.2	10.3	0.6	24.6
Bristol city	5	0	5	0	1.0	53.6	1.0	35.3
Brunswick County	2	2	0	0	0.4	25.7	0.0	-
Buchanan County	1	8	4	5	0.2	10.9	0.8	31.2
Buckingham County	2	0	2	3	0.4	33.3	0.4	24.6
Buena Vista city	2	1	0	1	0.4	76.3	0.0	-
Campbell County	3	7	8	4	0.6	19.2	1.6	40.5
Caroline County	6	1	3	1	1.2	94.7	0.6	33.7
Carroll County	2	4	3	6	0.4	14.9	0.6	16.1
Charles City County	0	1	0	1	0.0	-	0.0	-
Charlotte County	1	2	0	2	0.2	14.7	0.0	-
Charlottesville	6	4	5	5	1.2	31.8	1.0	22.0
Chesapeake city	6	4	6	1	1.2	23.2	1.2	14.8
Chesterfield County	1	5	9	7	0.2	5.9	1.8	27.6
Clarke County	0	2	2	2	0.0	-	0.4	29.7
Clifton Forge city	1	1	0	0	0.2	23.4	0.0	-
Colonial Heights	2	1	2	2	0.4	38.4	0.4	26.8
Covington city	2	1	1	2	0.4	34.9	0.2	12.5
Craig County	0	1	1	1	0.0	-	0.2	39.3
Culpeper County	5	2	7	5	1.0	47.1	1.4	48.4
Cumberland County	3	0	3	1	0.6	75.5	0.6	56.0
Danville city	2	3	1	3	0.4	7.6	0.2	2.8
Dikenson County	1	3	4	2	0.2	14.5	0.8	43.0
Dinwiddie County	3	2	2	1	0.6	26.2	0.4	16.2
Emporia city	0	1	1	0	0.0	-	0.2	22.2
Essex County	0	2	1	0	0.0	-	0.2	14.5
Fairfax County	15	28	31	19	3.0	21.9	6.2	23.0
Fairfax city	0	1	0	0	0.0	-	0.0	-
Falls Church city	1	0	2	0	0.2	24.2	0.4	30.4
Fauquier County	0	4	4	3	0.0	-	0.8	24.0
Floyd County	1	3	3	0	0.2	14.9	0.6	33.3
Fluvanna County	1	1	1	0	0.2	22.4	0.2	16.4
Franklin County	2	3	7	4	0.4	15.3	1.4	36.1
Franklin city	2	1	0	0	0.4	67.6	0.0	-
Frederick County	3	5	5	2	0.6	26.7	1.0	35.9
Fredericksburg city	1	2	4	1	0.2	12.5	0.8	35.6

(table continues)

Appendix Table 1 (continued)
Suicide Among Virginia's Elderly (65 and above):
Individual Counties and Independently Reporting Cities, 1968-85

County/City	Number of Suicides				1968-72 Mean Annual		1978-82 Mean Annual	
	1968-72	1973-77	1978-82	1983-85	No.	Rate	No.	Rate
Galax city	1	0	1	2	0.2	27.1	0.2	17.3
Giles County	0	1	1	2	0.0	-	0.2	9.3
Gloucester County	4	2	1	2	0.8	49.4	0.2	8.4
Goochland County	1	2	1	1	0.2	22.4	0.2	15.4
Grayson County	2	4	5	2	0.4	20.8	1.0	42.2
Greene County	1	2	3	3	0.2	37.7	0.6	87.5
Greensville County	0	0	2	0	0.0	-	0.4	34.0
Halifax County	2	1	4	1	0.4	13.3	0.8	20.4
Hampton city	4	5	11	7	0.8	13.5	2.2	25.9
Hanover County	2	2	9	5	0.4	13.9	1.8	39.9
Harrisonburg city	1	0	1	3	0.2	14.1	0.2	9.4
Henrico County	10	15	21	8	2.0	19.1	4.2	23.5
Henry County	1	5	13	4	0.2	6.8	2.6	53.1
Highland County	1	1	3	1	0.2	48.7	0.6	129.3
Hopewell city	2	2	1	2	0.4	25.2	0.2	7.8
Isle of Wight County	0	3	1	2	0.0	-	0.2	9.3
James City Count	0	0	3	1	0.0	-	0.6	28.2
King and Queen County	0	2	2	0	0.0	-	0.4	48.4
King George County	3	0	1	1	0.6	86.1	0.2	22.9
King William County	2	0	0	0	0.4	53.1	0.0	-
Lancaster County	2	1	2	0	0.4	27.1	0.4	18.4
Lee County	4	0	11	4	0.8	27.2	2.2	60.8
Lexington city	3	0	2	1	0.6	74.3	0.4	44.7
Loudoun County	4	2	5	4	0.8	28.2	1.0	25.8
Louisa County	1	3	4	5	0.2	11.9	0.8	35.8
Lunenburg County	4	3	1	3	0.8	58.2	0.2	12.0
Lynchburg city	2	6	10	7	0.4	6.0	2.0	21.5
Madison County	2	3	3	2	0.4	37.8	0.6	41.4
Manassas city	0	0	0	4	0.0	-	0.0	-
Manassas Park city	0	0	0	1	-	-	0.0	-
Martinsville city	1	1	3	2	0.2	12.9	0.6	21.3
Mathews County	3	3	3	1	0.6	41.8	0.6	34.2
Mecklenburg County	5	6	2	4	1.0	32.4	0.4	9.8
Middlesex County	0	2	3	2	0.0	-	0.6	38.9
Montgomery County	7	9	6	3	1.4	46.4	1.2	27.5
Nelson County	2	3	2	0	0.4	26.0	0.4	21.9
New Kent County	0	0	1	2	0.0	-	0.2	26.3
Newport News city	2	9	13	10	0.4	5.4	2.6	22.9
Norfolk city	23	22	32	12	4.6	22.0	6.4	26.1
Northampton County	5	3	1	1	1.0	48.4	0.2	8.4
Northumberland County	0	2	2	1	0.0	-	0.4	20.2
Norton city	0	1	0	0	0.0	-	0.0	-
Nottoway County	2	6	3	0	0.4	19.8	0.6	24.4
Orange County	3	1	2	3	0.6	36.8	0.4	16.6

(table continues)

Appendix Table 1 (continued)
Suicide Among Virginia's Elderly (65 and above):
Individual Counties and Independently Reporting Cities, 1968-85

County/City	Number of Suicides				1968-72 Mean Annual		1978-82 Mean Annual	
	1968-72	1973-77	1978-82	1983-85	No.	Rate	No.	Rate
Page County	2	2	6	3	0.4	20.4	1.2	47.7
Patrick County	2	1	1	4	0.4	23.5	0.2	8.6
Petersburg city	5	2	0	2	1.0	27.3	0.0	-
Pittsylvania County	2	4	8	6	0.4	7.9	1.6	22.4
Poquoson city	0	0	0	0	0.0	-	0.0	-
Portsmouth city	5	3	6	10	1.0	11.1	1.2	10.7
Powhatan County	3	3	3	1	0.6	88.4	0.6	68.3
Prince Edward County	0	1	2	1	0.0	-	0.4	19.0
Prince George County	1	1	1	1	0.2	25.5	0.2	21.1
Prince William County	2	6	5	4	0.4	20.8	1.0	28.4
Pulaski County	3	4	1	2	0.6	22.7	0.2	5.0
Radford city	0	1	0	0	0.0	-	0.0	-
Rappahannock County	0	1	1	0	0.0	-	0.2	24.8
Richmond County	1	2	3	0	0.2	27.5	0.6	57.1
Richmond city	20	36	30	12	4.0	14.1	6.0	19.5
Roanoke County	8	5	5	6	1.6	34.4	1.0	14.2
Roanoke city	12	16	17	8	2.4	19.2	3.4	21.7
Rockbridge County	3	4	1	2	0.6	36.6	0.2	9.8
Rockingham County	6	9	7	5	1.2	27.5	1.4	23.8
Russell County	1	2	4	4	0.2	8.6	0.8	24.9
Salem city	2	2	5	3	0.4	8.3	1.0	32.1
Scott County	3	4	5	4	0.6	22.1	1.0	29.7
Shenandoah County	3	6	7	1	0.6	19.6	1.4	34.3
Smyth County	3	3	5	2	0.6	18.6	1.0	23.7
Southampton County	2	2	0	0	0.4	24.0	0.0	-
South Boston city	1	1	0	1	0.2	25.9	0.0	-
Spotsylvania County	0	3	4	1	0.0	-	0.8	35.4
Stafford County	0	2	5	2	0.0	-	1.0	44.9
Staunton city	6	5	4	3	1.2	39.2	0.8	24.3
Suffolk city	3	2	6	3	0.6	45.8	1.2	21.9
Surry County	1	1	0	2	0.2	31.7	0.0	-
Sussex County	0	0	1	1	0.0	-	0.2	14.9
Tazewell County	7	9	2	4	1.4	37.5	0.4	7.8
Virginia Beach city	7	9	20	10	1.4	23.5	4.0	33.6
Warren County	1	3	5	2	0.2	13.1	1.0	38.8
Washington County	5	12	6	3	1.0	24.3	1.2	22.2
Waynesboro city	0	2	2	2	0.0	-	0.4	21.0
Westmoreland County	3	3	3	3	0.6	39.0	0.6	26.2
Williamsburg city	1	2	3	0	0.2	31.3	0.6	58.5
Winchester city	1	7	1	2	0.2	9.6	0.2	6.6
Wise County	7	9	5	3	1.4	37.3	1.0	22.0
Wythe County	2	5	4	3	0.4	16.4	0.8	24.6
York County	1	3	1	1	0.2	18.6	0.2	10.5

Appendix Table 5
U.S. Elderly (65+) Suicide Rates by State, 1968-72 to 1978-82

State	1970 Rate	1970 Rank	1975 Rate	1975 Rank	1980 Rate	1980 Rank	1970-80 % Change
Nevada	46.5	1	38.6	1	32.2	1	-31.0%
Wyoming	41.7	2	27.5	7	30.7	2	-26.0%
Arizona	25.6	9	27.6	6	28.3	3	+11.0%
California	33.1	3	30.6	2	25.7	4	-22.0%
Colorado	26.4	8	28.5	5	25.6	5	-3.0%
Vermont	27.4	7	22.3	16	25.4	6	-7.0%
New Mexico	25.5	10	26.9	8	25.4	6	-0.4%
Idaho	28.0	6	29.2	4	25.2	8	-10.0%
Oregon	24.3	12	24.9	9	24.8	9	+2.0%
Virginia	20.8	24	23.8	12	23.1	10	+12.0%
Florida	24.1	13	24.6	10	23.1	10	-4.0%
Washington	25.3	11	24.4	11	22.6	12	-11.0%
Alaska	31.9	4	16.3	39	22.5	13	-29.0%
Utah	21.7	21	19.1	27	21.8	14	+0.5%
Montana	19.2	31	29.9	3	21.3	15	+11.0%
Kentucky	23.0	17	23.8	12	20.9	16	-10.0%
West Virginia	20.6	26	19.1	27	19.8	17	-4.0%
Tennessee	23.3	15	20.6	21	19.2	18	-18.0%
Georgia	19.5	30	20.9	19	19.1	19	-2.0%
Arkansas	14.6	48	16.2	40	19.1	19	+31.0%
Ohio	23.4	14	22.0	17	18.5	21	-21.0%
Texas	18.9	33	18.9	31	18.4	22	-3.0%
Missouri	20.3	27	19.0	30	18.4	22	-9.0%
Maine	19.2	31	19.3	25	17.9	24	-7.0%
South Dakota	20.1	28	15.0	45	17.8	25	-11.0%
Iowa	23.3	15	19.7	23	17.8	25	-24.0%
Wisconsin	21.6	22	17.5	36	17.8	25	-18.0%
North Carolina	16.2	43	18.1	33	17.7	28	+9.0%
Louisiana	17.7	38	18.8	32	17.7	28	N.C.
Delaware	22.4	19	22.8	14	17.6	30	-21.0%
Hawaii	31.3	5	22.5	15	17.6	30	-44.0%
Indiana	22.3	20	21.2	18	17.5	32	-22.0%
Michigan	21.9	18	20.0	22	17.4	33	-24.0%
Oklahoma	15.5	44	19.6	24	17.3	34	+11.6%
Alabama	14.3	49	17.6	35	16.9	35	+18.0%
New Hampshire	17.1	40	20.8	20	16.7	36	-2.0%
Kansas	20.8	24	19.1	27	16.2	37	-22.0%
Nebraska	17.3	39	16.1	41	16.1	38	-7.0%
Maryland	21.5	23	17.9	34	16.1	38	-25.0%
Pennsylvania	19.7	29	17.5	36	15.7	40	-20.0%
South Carolina	18.5	35	17.2	38	15.0	41	-19.0%
Illinois	18.5	35	16.0	42	14.6	42	-21.0%
Minnesota	16.6	42	14.6	46	14.1	43	-15.0%
New York	15.5	44	14.1	47	14.0	44	-10.0%
Mississippi	14.9	47	15.5	44	13.8	45	-7.0%
Washington, D.C.	16.7	41	19.2	26	13.5	46	-19.0%
Connecticut	18.6	34	14.0	48	13.1	47	-30.0%
New Jersey	15.0	46	13.7	49	12.1	48	-19.0%
North Dakota	17.8	37	12.6	50	11.4	49	-36.0%
Rhode Island	10.6	51	15.7	43	10.9	50	+3.0%
Massachusetts	11.8	50	11.8	51	9.9	51	-16.0%
National Means:					18.9	-	-11.0%

"1970" is actually the average for the period 1968-1972; "1975" is 1973-1977; "1980" is 1978-1982.
Source: McIntosh, 1988

APPENDIX B

IMPACT OF FAMILY CAREGIVING ON EMPLOYEE WORK PERFORMANCE

Recommendations and Plan of Action
Based on the Charlottesville Area Survey and Analysis

While this study, conducted by the Jefferson Area Board for Aging with the assistance of the University of Virginia's Darden Graduate Business School and the Charlottesville-Albemarle Chamber of Commerce, is preliminary and confined to only one of the Commonwealth's planning districts, its results should serve as a catalyst to both further study and the initiation of program planning to address key social issues. In the spirit of encouraging much closer attention, in the realms of public policy and the business community, to the growing phenomenon defined as adult caregiving, the following set of recommendations are offered:

1. The Commonwealth of Virginia should begin to address in a comprehensive fashion the need to develop a system of eldercare services designed to aid the burgeoning population of adult caregivers and care recipients. Whereas Virginia's Executive Branch has taken the lead in conjunction with the state's business community to promote childcare support services, equal attention must be paid relative to care of adult-dependents. In constructing a system of eldercare services, the Commonwealth must recognize that the inevitable aging process impacts personally and profoundly not only each elderly individual, but also, in many cases, his or her adult children. The Commonwealth must set in place, and hold accountable, the planning mechanism required to deal rationally and cost effectively with the pressing problems of aging, problems that considered as a set will constitute the most critical domestic social and economic issues of the next century.

2. State and local governments, along with the voluntary charitable sector, must develop the resources necessary to meet this challenge. The development and expansion of case management, adult day care, home and personal care, and respite services for adult caregivers throughout the Commonwealth should be given a high priority. An experienced and competent system of local agencies, expert in assisting the multiple challenges of the aged and their caregivers, must be adequately supported if the Commonwealth is to begin to meet the needs of its aging population in the decades ahead.

3. Employers must recognize the validity of the demand elder caregiving places upon their employees. Employer goals of enhancing productivity and nurturing valuable human resources should converge and product creative organizational responses to the problems of eldercare. Employers should seek to define the extent of elder caregiving within their own work force and develop educational programs and flexible approaches to work scheduling designed to alleviate the often immense stress on employees caused by conflicting work and family responsibilities.

4. Employers should explore partnerships with public and private agencies in order to provide services to the elderly and their families. The public and private sector should band together to develop guidelines for employers in selecting and implementing the most appropriate range of services for particular employee populations and work organizations. Inexorable demographic trends will soon catapult eldercare into the forefront of employees' concerns. Consequently, corporate and public sector employees should consider expanding their benefits programs to include contracts with area agencies on aging and other human service organizations which can provide advice and case management services to those employees who face eldercare responsibilities as well as to retirees. A progressive approach to changing demographics is essential if employers, the Commonwealth, and the nation are to confront successfully the changing basic needs of the labor force of the twenty-first century.

APPENDIX C

HOUSE JOINT RESOLUTION NO. 156

LD4256586

HOUSE JOINT RESOLUTION NO. 156
AMENDMENT IN THE NATURE OF A SUBSTITUTE
(Proposed by the House Committee on Rules
on February 13, 1988)
(Patron Prior to Substitute–Delegate Van Yahres)

Requesting the Department for the Aging to study the problems of suicide and substance abuse by the elderly and the impact of family care giving on employee work performance.

WHEREAS, today's society places much emphasis on youth and health, but advances in medical science have prolonged the life span of human beings to a point where the ranks of the elderly are growing faster than any other age group, and the very old, those over 85, are increasing fastest of all; and

WHEREAS, families today are nonextended and the elderly often find that, although the quantity of life has been expanded, the quality has not, and many find that when they are stricken by degenerative diseases as well as just being old, there is no one to care for them except the health care system which is often unaffordable due to cuts in government spending; and

WHEREAS, clinical depression in the elderly should not be considered to be a normal accompaniment to old age but estimates suggest that about fifteen percent are depressed and a big percentage could be successfully treated if diagnosed properly; and

WHEREAS, suicide among the elderly shows an alarming trend upward with rates averaging up to quadruple the national average. Success rates on suicide attempts by the elderly are much greater than for younger persons and the concept of murder-suicide by elderly couples is showing a distinct pattern; and

WHEREAS, much attention is now being paid to the problems of alcohol and drug abuse and much attention has been focused on the younger members of society; and

WHEREAS, substance abuse is also a growing problem among our senior citizens, among whom the effects of such abuse exacerbate pre-existing conditions and makes them more vulnerable to other deleterious situations; and

WHEREAS, this abuse is often unintentional by those senior citizens and may result from waning memory or from necessary medications, causing great hardship for this important group of Virginia citizens and their families and caregivers; and

WHEREAS, nearly eighty percent of the care received by the elderly is given by family members and caring for a dependent family member can dramatically affect work productivity, employee health, job satisfaction and financial status; and

WHEREAS, employers are now beginning to see an increase of absenteeism, repeated tardiness, lack of motivation, and overall poor job performance among their employees who provide elder care; and

WHEREAS, family care giving is likely to impact on most employers as the number of women in the work force expands and as the number of elderly and disabled requiring family care continues to grow; and

WHEREAS, accurate data on family giving and the identification of the needs of family care givers could enhance employers' recognition and understanding of the needs of such employees and foster corporate and government policies and programs designed to meet the needs of such employees and their employers; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Department for the Aging study the problems of suicide and substance abuse by the elderly and the impact of family care giving on employee work performance. The Department shall (i) determine the extent and nature of the problem of suicide among the elderly, (ii) make suggestions as to how to alleviate this disturbing trend in a humane and compassionate way, (iii) determine the factors which contribute to substance abuse in the elderly and recommend methods to appropriately and cost-effectively manage this growing problem, and (iv) examine the extent to which employees provide significant family care giving, its impact on such employees and their employers, and the need for employer assistance and respite

care.

The Department for the Aging shall report its findings by December 1, 1988, to the Governor and the General Assembly as provided in the procedure of the Division of Legislative Automated Systems.

Official Use By Clerks	
Agreed to By The House of Delegates	**Agreed to By The Senate**
without amendment ☐	without amendment ☐
with amendment ☐	with amendment ☐
substitute ☐	substitute ☐
substitute w/amdt ☐	substitute w/amdt ☐
Date: _____	Date: _____
Clerk of the House of Delegates	Clerk of the Senate