



# Community Health Assessment Quarterly

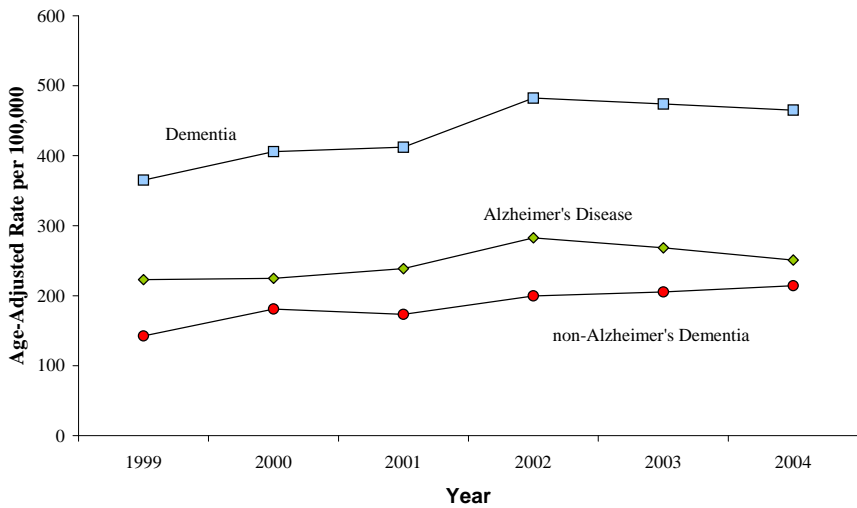
## Dementia Deaths in the Elderly

Dementia is a serious chronic disease of the elderly that results in a disabling decline in cognitive function; it is one of the major health problems in our aging society. Dementia is estimated to affect about 4.5 million Americans, and as the elderly grow in number, those with dementia are expected to grow to 13 million by 2050. Alzheimer's disease is the most common form of this disease, accounting for over half of those diagnosed with dementia and affecting about 67 in 1,000 seniors (ages 65 and older) in the US (1). Not only has the absolute number of dementia cases increased, the dementia death rate (the number of dementia deaths divided by the population) in the U.S. increased 40% between 1999 and 2004.

The health care needs of those suffering from dementia are enormous, and those with the illness often end up in costly long-term care. Recent studies have found that two-thirds of those dying of dementia die in a nursing home, with total costs of dementia care estimated at \$76 billion annually in the US, the highest in the world (2-3).

Given the projected increases in the senior population as well as the alarming rise in dementia death rates nationally, it seemed appropriate to examine the impact of dementia on seniors locally. Attention will be paid to the patterns and demographics of this disease, with special emphasis on those with Alzheimer's disease.

**Dementia Deaths Among Seniors (Ages 65 years and older)  
 Multnomah County**



Graph 1. Dementia deaths to Seniors in Multnomah County.

### Methods and Results

An examination of six years of Multnomah County death data from 1999 to 2004, using dementia as the underlying cause of death, revealed 2,088 dementia deaths to seniors in Multnomah County. This represents over 8% of all senior deaths, and 13% of deaths among those ages 85 and older. The age-adjusted death rate in 2004 was 465 per 100,000 Multnomah County residents, making it the 4<sup>th</sup> leading cause of death in seniors (behind cancer, heart disease and stroke). The dementia death rate increased 27% between 1999 (365 per 100,000) and 2004. Non-Alzheimer's dementia deaths increased 50% in the same period, from 142 to 214 deaths per 100,000 (Graph 1). Dementia death rates rose dramatically at the same time as the age group increased. The dementia death rate to those 85 and over was found to be 80 times higher than the rate of those in their mid-60s (Graph 2). The vast majority of deaths were to White non-Hispanics, with women

**Table 1.** Demographic and Characteristic Information on Dementia Deaths among Multnomah County Seniors (ages 65 years and older): 1999-2004 (N= 2,088)

| Demographic             | %    | Characteristic of Death                 | %     |
|-------------------------|------|---|-------|
| Age 85 years and older  | 64 % | Died at nursing home                    | 70 %  |
| Female sex              | 71 % | Died of Alzheimer's disease             | 57 %  |
| White non-Hispanic race | 95 % | Dementia as percentage of senior deaths | 8.3 % |
| Married                 | 24 % | Cardiovasc. disease as contrib. cause   | 23 %  |

# Dementia Deaths in the Elderly

making up over 70% of deaths; 65% of those dying of dementia were 85 years and older (Table 1).

**Alzheimer’s Disease.** Alzheimer’s disease was the primary cause of death in 57% of dementia deaths in Multnomah County seniors. In the 1999-2004 time period the Alzheimer’s disease death rate increased from 223 to 251 deaths per 100,000. Multnomah County has one of the highest Alzheimer’s disease death rates in the Country. Oregon’s Alzheimer’s death rate is 4<sup>th</sup> highest in the nation, and when looking at seniors, Multnomah County’s rate is the 4<sup>th</sup> highest in the State.

**Nursing Home as Place of Death.** Previous research has shown that two-thirds of those with dementia end up in a nursing facility, mostly due to the profound challenges of caring for those with this disease at home (3,4). We examined the place of death of seniors dying of dementia in Multnomah County. During the 1999-2004 time period, 36% of all senior deaths in Multnomah County were in a nursing home. During the same period, 70%

of those dying of dementia died in a nursing home (compared to 30% for all other causes). For comparison, the proportion of dementia deaths in nursing homes was 69% for Oregon and 67% nationally. A statistical analysis of death data indicates that when controlling for age, race, and gender, those dying of dementia were 3 ½ times more likely (odds ratio = 3.6, p<0.0001) to die in a nursing home than those dying from other causes.

### Conclusion

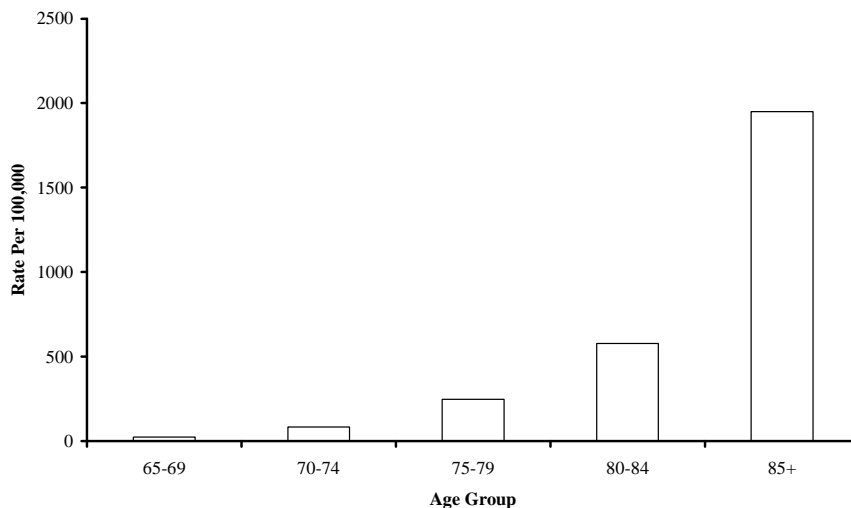
Dementia is a common disease in the elderly, and it is expected to become a larger issue due to the “graying of America”. Dementia is the 4<sup>th</sup> leading cause of death in seniors in Multnomah County, and accounts for about 8% of all deaths to those 65 and older. The dementia death rate increased 27% between 1999 and 2004. An analysis of death data shows that over two-thirds of those dying from dementia died in a nursing home, and that the odds of dying in a nursing home are 3 ½ times higher for those with dementia compared to those dying from other causes.

Given these trends, it seems likely that the health care system will need to adapt to the growth of elderly patients with dementia. The demand on long-term care facilities, and the need for gerontologists who specialize in the needs of the elderly, will increase substantially over the next several decades.

### References

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**Dementia Deaths in Multnomah County : 1999-2004**



Graph 2. Dementia Deaths by Age Group

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