Demographic Profile of the Elderly in Texas

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This report is one in a series being published by the Texas Department on Aging in an effort to provide timely, relevant, and customized information on aging issues to the legislature, state and local government, and other stakeholders.

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EXECUTIVE SUMMARY

The elderly population in Texas has grown steadily throughout the 20^{th} century. Growth will accelerate in about 2010 as the large post-World War II cohorts approach old age. The older population of Texas is distinguished from the older population of other states by greater absolute size, ethnic and racial diversity, and a high poverty rate.

The purpose of this report is to describe the age distribution, gender composition, ethnic and racial diversity, geographic distribution, and selected Medicaid program characteristics of the older population in Texas. The older population includes individuals aged 60 years old and older. This 60+ population is the target population to be served by the Older Americans Act which is the federal funding source for the Texas Department on Aging. Selected Medicaid data are presented for the population aged 65+. The following material summarizes the report.

Population Aged 60+

- ➤ Projections for 2000 indicate that there are 2,716,218 Texans aged 60+ or about 13 percent of the total Texas population of 20,344,798.
- ➤ The older population is relatively young; about 66 percent of the older population are below the age of 75.
- The older female population outnumbers the older male population. There are about 74 males for every 100 females, and the disparity increases with advancing age.
- ➤ Over half (53%) of the older population live in the most urban Health and Human Service (HHS) Regions of Texas (Metroplex, Gulf Coast, and Upper South).
- ➤ The rural HHS Regions are characterized by greater proportions of older people residing within their local populations. The 60+ population accounts for about 20 percent of local area populations in the Northwest, Upper East, and Southeast Regions of Texas.

Ethnic and Racial Diversity

- The majority of the 60+ population is White (71%). However, members of minority groups constitute a relatively large proportion of the older population. Nearly 29 percent of the elderly are classified as Black (9%), Hispanic (18%), or Asian, American Indian, Pacific Islander (2%).
- ➤ Women outnumber men in each ethnic/racial group. The greatest disparity between genders is found in the Black population, where females make up 61 percent of the 60+ Black population. The least disparity is found in the Other group (Asian, American Indian, Pacific Islander) where females are 55 percent of the 60+ Other population.

➤ The Hispanic population is concentrated in the southern and western regions, the Black population is concentrated in the eastern and north-central regions, and the White population is a majority in all regions except the extreme southern and western regions.

Texas Medicaid Program Characteristics

- About 13 percent (338,028 persons) of the 60+ population of Texas is enrolled in the Medicaid program; 70 percent of those enrolled are women.
- ➤ The ethnic and racial minorities are over-represented among 60+ Medicaid enrollees. Minorities are about 29 percent of the total population aged 60+, but account for about 55 percent of 60+ Medicaid enrollment.
- ➤ The age distribution of Medicaid enrollees varies by race and ethnicity. Percentages of Medicaid enrollees who are aged 75+ are: Whites 57 percent, Blacks 45 percent, Hispanics 37 percent, and Other 34 percent.
- ➤ About 15 percent of the 65+ population in Texas received Medicaid covered services in 1998 at a cost of \$2.3 billion dollars.
- Medicaid spending for the 65+ population is concentrated in the 75+ age group, which accounts for 73 percent of expenditures.
- Females aged 75+ accounted for 58 percent of 65+ Medicaid expenditures or \$1.3 billion, while males in the same age group accounted for 16 percent or \$368 million.

Projected Growth in the Texas Population Aged 60+

- ➤ Texans aged 60+ are projected to total 7,498,859 in 2030, an increase of 176 percent from the year 2000. By 2030, the 60+ population is projected to comprise 22 percent of the total Texas population.
- ➤ Projections indicate the 60+ population will itself grow older. In 2000, the 75+ age group totals almost one million; by 2030, the total is projected to reach about 2.4 million, a 160 percent increase.
- ➤ The number of males surviving into old age is projected to increase; in 2000, men comprise only 42 percent of the 60+ population, by 2030, males are projected to comprise 46 percent.
- ➤ Currently, Whites constitute a majority of the 60+ population with about 71 percent of the total, by 2030 the ethnic and racial minorities are projected to form a majority with about 51 percent of the total elderly population.

Implications of Population Growth for Medicaid Expenditures

- ➤ The elderly account for a disproportionate amount of Medicaid expenditures. In 1998, the elderly were 13 percent of total Medicaid recipients and accounted for 33 percent of total expenditures. In addition, the 75+ age group accounted for 73 percent of total expenditures for the population aged 65+.
- ➤ Precise projections of expenditures over long time periods are difficult because demographic projection techniques have limitations. However, if current demographic patterns continue, Medicaid expenditures for the elderly could increase substantially.

DEMOGRAPHIC PROFILE OF THE ELDERLY IN TEXAS

I. Introduction

The growth of the older population in Texas has, for the most part, paralleled national trends. The elderly, both in terms of absolute numbers and as a percentage of the total population, have increased steadily during the 20th century. A widely anticipated event, at the state and national level, is acceleration in the growth of the older population as the first of the large post-World War II cohorts reach eligibility for full Social Security benefits after 2010.

Elderly Texans are distinguished from the national population by several features: absolute size; ethnic and racial diversity; and the poverty rate. Texas has the fourth largest older population behind California, New York, and Florida. In addition, Texas has the second largest Hispanic population and the third largest Black population compared to other states (Saenz & Murguia, 1995). Finally, the poverty rate among Texas' elderly exceeds the national average (Dalaker, 1999).

The purpose of this report is to describe the age distribution, gender composition, ethnic and racial composition, geographic distribution, and selected Medicaid program characteristics of the older population in Texas. Projected growth for the elderly population is also described, and implications for Medicaid expenditures are discussed.

The population projection data were obtained from the Texas State Data Center (see Technical Note 1, p. 16). An explanation of the difference between population projections and estimates is provided in Technical Note 2, p. 16. Medicaid expenditure data were obtained from the 2082 Health Care Financing Administration Report, and Medicaid enrollment data were obtained from the Texas Health and Human Services Commission (see Technical Note 4, p. 16).

For the purpose of this report, old age is defined as 60 years and older. Individuals aged 60+ are the target population to be served by the Older Americans Act which is the federal funding source for the Texas Department on Aging. Medicaid expenditure data reported in following sections, however, were only available for the population aged 65+. Currently, age 65 defines old age for Medicaid programs. Age 65+ is also eligibility for full Social Security retirement benefits and Medicare coverage. However, in the future, the Social Security age for full retirement will gradually increase, beginning with people born in 1938 or later, that age will gradually increase until it reaches 67 for people born after 1959.

Four racial and ethnic groups are included in the analysis: Black, White, Hispanic, and Other. Blacks are non-Hispanic persons of the black race. Whites are non-Hispanic persons of the white race. Hispanics are of Hispanic origin of all races. The Other group consists of all remaining persons who are not Hispanic and are not either White or Black non-Hispanic. The Other group is mainly Asian and Native American, and choice of this designation was dictated by the numerical size of the different racial and ethnic groups.

II. The Texas Population Aged 60+

Population figures for the year 2000 indicate there are over 2.7 million Texans aged 60+, representing an increase of 16 percent over the 1990 total of 2.3 million (Figure 2.1).

2,335,906

Figure 2.1. Population Increase for Texans Aged 60+

The total population for Texas in 1990 was 16,986,510 and the projected total for 2000 is 20,344,798. Expressed as a percentage of the total population of Texas, the 60+ population represented 13.8 percent in 1990 and 13.4 percent in 2000 (Figure 2.2). Relative stability as a percentage of the total population during the 1990's was most likely the result of historically low birth rates during the 1930's and more recent high birth rates among population subgroups. As a result of the recent high birth rates, Texas has a median age that is lower than the national average. The relatively low median age ranks Texas as the third youngest state behind Utah and Alaska (Saenz & Murguia, 1995).

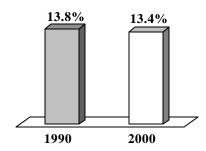
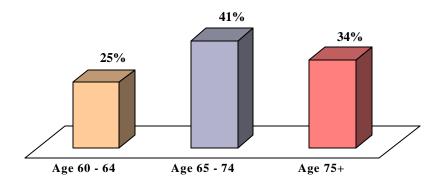


Figure 2.2. 60+ Population as a Percent of Total Texas Population

Age Distribution- The age distribution of the Texas population aged 60+ is displayed in Figure 2.3. The majority of the elderly population, about 66 percent, is found in the younger age groups, 60-64 and 65-74. The age distribution of a population has significant implications for the demand for services. Disability and utilization of long-term care services are greater in the oldest of the old (75+) compared to the younger old (60-74). Nationally, for example, approximately two percent of the 65-74 age group are nursing home residents, while the figure for the 85+ group is about 15 percent (Kramarow et al., 1999). Consequently, as the age distribution of a population shifts to favor the oldest age groups, demand on long-term care services can be expected to increase.

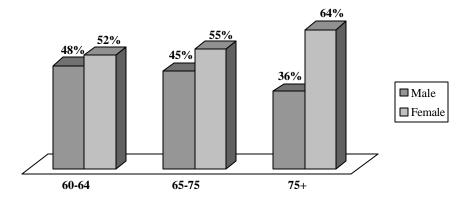
Figure 2.3. Age Structure of Texans Aged 60+ in 2000



Gender Composition- In the year 2000, the older female population (1,563,737) outnumbers the older male population (1,152,481); females account for 58 percent and males for 42 percent of the population aged 60+ in Texas. The larger female population is due to gender differences in life expectancy; women currently outlive males by an average of about seven years (Kramarow et al., 1999).

The sex ratio for the Texas population aged 60+ in 2000 is 73.7, which means that there are about 74 older males for every 100 older females. However, the gender differential increases with age (Figure 2.4). For example, ratios for the 60-64, 65-74, and 75+ age groups are 90.5, 81.8, and 55.0, respectively. One result of the disproportionate number of women in the advanced old age groups is that long-term care is largely a women's issue. National data indicate that approximately 75 percent of nursing home residents and two-thirds of home care consumers are women (Adams et al., 1999).

Figure 2.4. Gender Composition Across Age Groups for Texans Aged 60+



<u>Geographic Distribution</u>- Considerable variation exists with regard to the geographic distribution of the older population. The following analysis outlines geographic distribution with respect to the Texas Health and Human Service (HHS) Regions (see map, p. 18 for HHS Regions). These HHS Regions include Area Agencies on Aging (see Technical Note 3, p. 16).

The HHS Regions dominated by the largest metropolitan areas have the largest absolute numbers of persons aged 60+ (Figure 2.5). The three HHS Regions which include the Dallas/Fort Worth, Houston, and San Antonio metropolitan areas (Metroplex, Gulf Coast, and Upper South, respectively) account for approximately 53 percent of the total population aged 60+. On the other hand, just over ten percent of the elderly reside in the three HHS Regions with the smallest older populations (Northwest, West, and Upper Rio Grande).

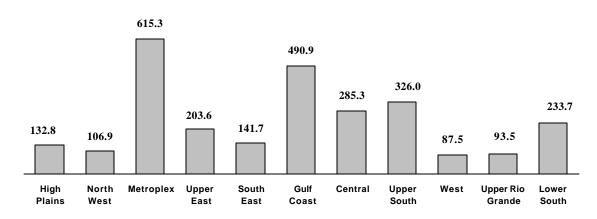


Figure 2.5. HHS Regional Distribution of Texans Aged 60+ (Thousands)

Figure 2.6 shows the proportional distribution of the older population. The largest metropolitan HHS Regions, Metroplex and Gulf Coast, (Dallas/Fort Worth and Houston, respectively) have the lowest percentages of the total population which are aged 60+. Conversely, the non-metropolitan regions (Northwest, Upper East, and Southeast) tend to have the highest percentages of persons aged 60+. One exception to the pattern is the non-metropolitan Upper Rio Grande Region, which has a percentage roughly equal to the metropolitan regions. A probable explanation for the proportional variation in these regions is out-migration of younger age groups from the non-metropolitan regions (Saenz & Murguia, 1995).

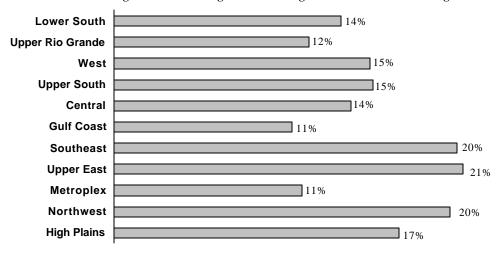


Figure 2.6. HHS Regional Percentage Distribution of Texans Aged 60+

III. Ethnic and Racial Diversity

In 2000, the majority (71%) of the 60+ population is White. However, members of minority groups constitute a relatively large proportion of the older population. Nearly 29 percent of the elderly are classified as Black, Hispanic, or Other (Asian, American Indian, Pacific Islander). The Hispanic is the largest minority group in the 60+ population with a total of 492,443 or 18 percent. The Black population is second with a total of 229,962 or 9 percent. The population classified as Other totals 56,413 or 2 percent (Figure 3.1).

Hispanic Other 492,443 56,413

Black 229,962 White 1,937,400

Figure 3.1 Ethnic/Racial Composition of Texans Aged 60+

Gender Composition- A comparison of the proportional representation of males and females across ethnic and racial groups in the 60+ population is presented in Figure 3.2. The proportions for the White and Hispanic groups are nearly identical. The relatively low proportion for Black males, 39 percent, is likely due to their lower life expectancy (Kramarow et al., 1999). In the case of the Other population category, a relatively high proportion of males is found (45%). Inmigration of males to this population group is probably a factor (Saenz & Murguia, 1995).

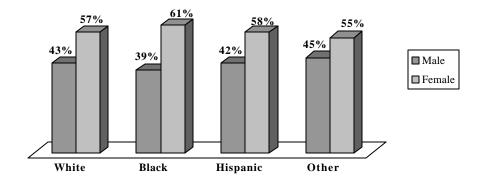
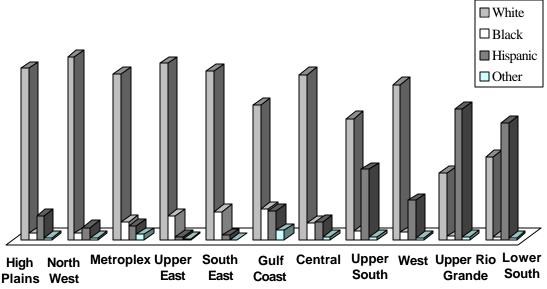


Figure 3.2. Gender by Race/Ethnicity for Texans Aged 60+

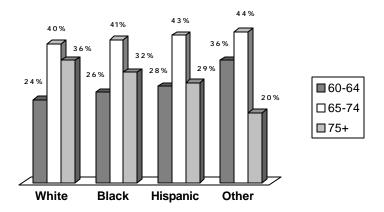
Geographic Distribution - As shown in Figure 3, significant variation is found in the distribution of ethnic and racial groups in the 60+ population across HHS Regions (see map, p. 18 for HHS Regions). The Hispanic population is concentrated in the southern and western regions, while the Black population is concentrated in the eastern and northern-central regions. The White population forms a majority in all regions except the extreme southern and western regions of the state.

Figure 3.3. Texas HHS Regional Distribution by Ethnicity/Race for 60+ Population



Age Distribution- The distribution of the ethnic and racial populations across age groups shows significant differences with respect to the proportions in the oldest and youngest old-age groups (Figure 3.4). The highest proportions in the advanced old-age group (75+) are found for the White population (36%). Progressively lower proportions of the 75+ age group are found for the Black, Hispanic, and Other populations. Conversely, the lowest proportions in the youngest old-age group (60-64) are found for the White population (24%) and the highest for the Other population (36%). The contributions of differential life expectancy and inmigration are the most plausible explanations for variation in age distribution across ethnic and racial groups.

Figure 3.4. Age Distribution by Race/Ethnicity for Texans Aged 60+



IV. Medicaid Program Characteristics of the Texas Population Aged 60+

Examination of Texas Medicaid program data offers a means of focusing on the segment of the 60+ population with low-incomes and limited resources. The most current Medicaid data available for analysis are December 1999 program enrollment data and data on 1998 annual expenditures. The Medicaid enrolled population consists of persons aged 60+ who were certified for participation in the Medicaid program during December, 1999 (see Technical Note 4, p.16). (The data do not include low-income individuals in the Texas 60+ population who objectively qualify for Medicaid coverage but who have not applied to the program.) Medicaid expenditure data are totals for the Federal fiscal year of 1998 for the 65+ population (see Technical Note 4, p.16).

Results of the analysis indicate the older population consumes a disproportionate amount of total Medicaid program resources. The 60+ population is about 13 percent of the total Texas population but accounts for nearly 20 percent of total Medicaid enrollment for all ages in Texas. Similarly, the 65+ population makes up 13 percent of total program recipients but accounts for 33 percent of total Medicaid expenditures for all ages.

<u>Medicaid Enrollment</u>- Medicaid enrollment indicates a potential demand for services as members of this population may, at any time, utilize services covered by the program. Data from the Texas Medicaid program show that 338,028 Texans aged 60+ were enrolled in the Medicaid program as of December, 1999. These Medicaid enrollees total 13 percent of the older population in Texas (Figure 4.1).

Medicaid Enrollees

75+
60-64
5%
NonParticipants
87%

Figure 4.1. Proportion of Texans Aged 60 + Enrolled in Medicaid Program

Gender and Medicaid Enrollment- One of the most important patterns indicated in the analysis is the predominance of women in the 60+ Medicaid enrolled population. As Figure 4.2 illustrates, females make up 70 percent of those enrolled while males make up only 30 percent. Older women have a higher poverty rate than older men. (Kramarow et al., 1999). The higher poverty rate combined with longer female life expectancy results in a preponderance of females in the 60+ Medicaid enrollee population.

Figure 4.2. Texans Aged 60+ Enrolled in Medicaid Program

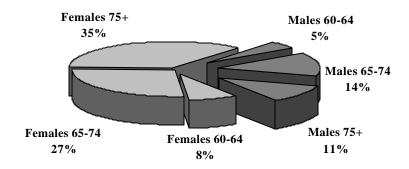
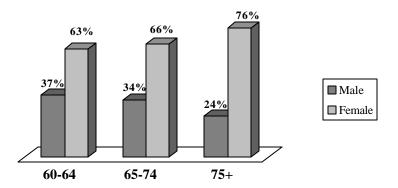


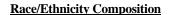
Figure 4.3 further illustrates the pattern of disparate enrollment by gender across each age group. Females account for the overwhelming majority of total 60+ Medicaid enrollees at every age level. The disparity is most extreme for the oldest (75+) age group, where women account for 76 percent of total enrollees.

Figure 4.3. Gender Composition of Texas Medicaid Enrollees Across Age Groups

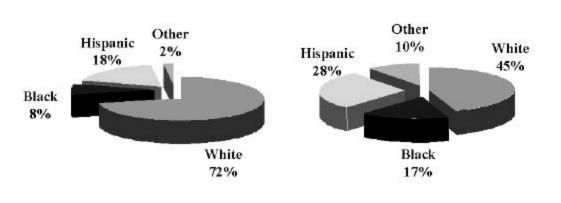


Race/Ethnicity and Medicaid Enrollment - Figure 4.4 illustrates the disproportionate enrollment rates by race/ethnicity. Whites tend to be under-represented while minorities tend to be over-represented in the 60+ Medicaid enrolled population. Texas' 60+ population is about 72 percent white, but Whites represent only about 45 percent of the Medicaid enrolled population. Conversely, the 60+ population is only 29 percent minorities, but minorities account for about 55 percent of Medicaid enrollees. Hispanics make up about 28 percent of Medicaid enrollees, Blacks about 17 percent, and the Other category accounts for about 10 percent. The foregoing figures reflect the high incidence of poverty in the ethnic and racial minority groups in Texas.

Figure 4.4. Race/Ethnicity and Medicaid Enrollment in the 60+ Population in Texas

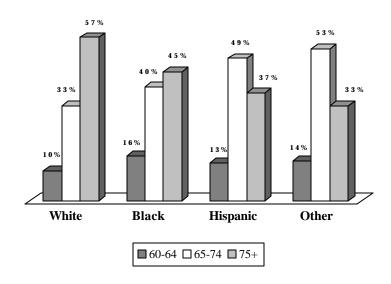


Medicaid Enrollment by Race/Ethnicity



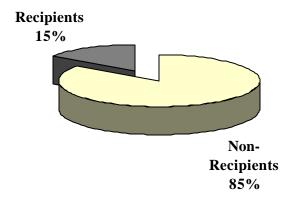
Age Distribution and Medicaid Enrollment- The age distribution of Medicaid enrollees also varies as a function of race and ethnicity as seen in Figure 4.5. Among the 60+, over half (57%) of all Whites on Medicaid are 75 years of age or older. The percentage of Black Medicaid enrollees who are 75+ drops to 45 percent. Only 37 percent of the Hispanic Medicaid enrollee population and only 34 percent of those who belong to the Other category are 75+. An explanation for the age differences shown here is not clear. Most likely ethnic and racial differences in life expectancy and cultural differences in service utilization are factors.

Figure 4.5. Age Distribution by Race/Ethnicity in 60+ Texas Medicaid Enrollee Population



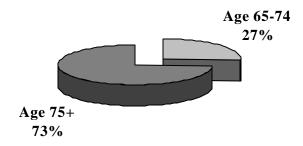
<u>Medicaid Expenditures for the 65+ Population</u>- Medicaid expenditures indicate actual utilization of medical services covered by the program. The data show 15 percent of the 65+ population in Texas received Medicaid covered services in 1998 at a cost of \$2.3 billion dollars (Figure 4.6).

Figure 4.6. Percentage of 65+ Texans Who Were Medicaid Recipients in 1998



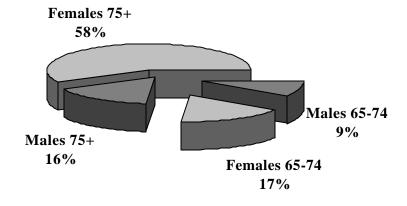
Age Distribution and Medicaid Expenditures- The expenditure pattern for the 65+ population is similar to that found for the Medicaid enrollment data (Figure 4.7). Medicaid spending increases with age. Almost three-quarters (\$1.7 billion) of 1998 Medicaid expenditures for persons aged 65+ were paid on behalf of Texans aged 75 and older.

Figure 4.7. 1998 Texas 65+ Medicaid Expenditures by Age



Age, Gender, and Medicaid Expenditures - Figure 4.8 illustrates the use of resources by the 65+ Medicaid population by age and gender. Females aged 75 and older account for over half (58%) of 65+ Medicaid expenditures or \$1.3 billion. By comparison, males aged 75+ account for only 16 percent of total expenditures or \$368 million.

Figure 4.8. 1998 Medicaid Expenditures for Texans Aged 65+



V. Projected Growth in the Texas Population Aged 60+

Current projections indicate the coming decades will bring rapid growth in the older population. Texans aged 60+ are projected to total 7.5 million by 2030, an increase of 176 percent from the year 2000. Figure 5.1 illustrates the projected growth in the 60+ population from 2000 through 2030. From the year 2000 to 2010, the 60+ segment is projected to grow at a rate of 34 percent; from 2010 to 2020 growth is projected to accelerate to 50 percent and then decline to 36 percent for the decade between 2020 and 2030.

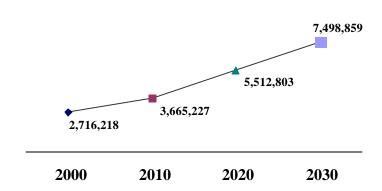


Figure 5.1. Projected Growth in the 60+ Population in Texas

Figure 5.2 further illustrates the projected expansion of the 60+ segment of the population in Texas. By 2010, 15 percent of the total population is projected to be age 60 and over. The figure for 2020 is 19 percent, and by the year 2030, the 60+ population is projected to comprise almost one quarter (22%) of all Texans.

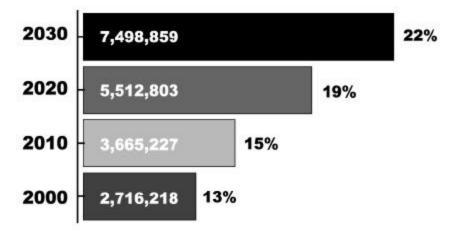


Figure 5.2. Percentage Growth in the 60+ Population in Texas

11

Age Distribution- The older population will grow older. Figure 5.3 shows the increase in absolute numbers that is projected to occur in the 60+ population from 2000 to 2030. In 2000, the 75+ age group totals almost one million; by 2030, the total is projected to reach 2.4 million, a 160 percent increase. In addition, the 75+ group is projected to be a proportionally larger segment of the 60+ population in 2030 compared to 2020 (32 percent and 27 percent, respectively).

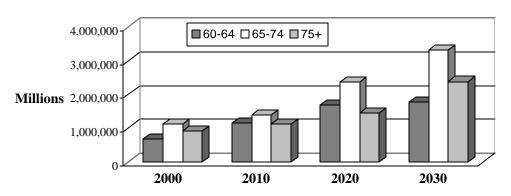


Figure 5.3. Age Group Distribution in Texas 60+ Population

Figure 5.4 exhibits decade specific growth rates for each age group. Growth for the youngest age group declines from 68 percent in the decade of 2000-2010 to 6 percent in the decade of 2020-2030. While growth for the oldest age group increases from 21 percent to 63 percent for the same decades. U.S. Census data indicate that growth for the 85+ population will be even greater (U.S. Census Bureau, 1989).

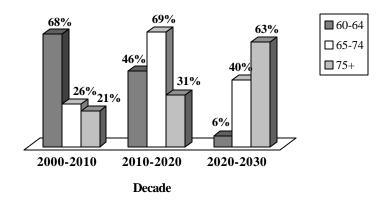
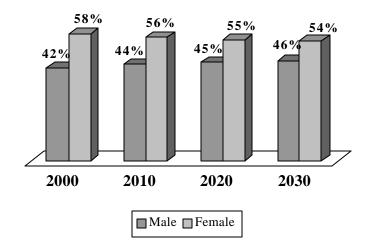


Figure 5.4. Growth Rates for Age Groups in the 60+ Population in Texas

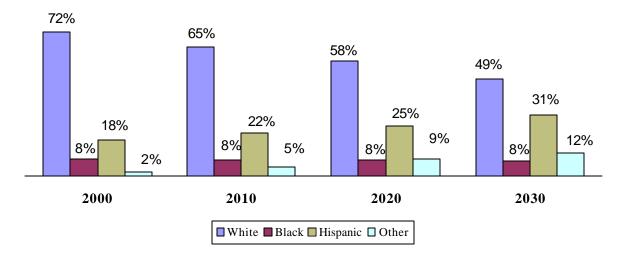
Gender Composition- Figure 5.5 displays the effect of projected growth on the gender composition of the older population. The main effect is to decrease the percentage gap between males and females from 16 percent in 2000 to only 8 percent in 2030. The projected closing of the gender composition gap is likely due to an increase in males' life expectancy (Kramarow et al., 1999).

Figure 5.5. Gender Composition of Texans Aged 60+



Ethnic and Racial Diversity- Important change is projected to occur with respect to the ethnic and racial composition of the older population in Texas (Figure 5.6). While the White group constitutes a majority with about 71 percent of the total population in 2000, by 2030, the ethnic and racial minorities are projected to form a majority with about 51 percent of the total elderly population. Most of this growth is projected to occur in the Hispanic population where numbers are expected to reach 2,312,653 or 31 percent of the total. The Other group is projected to increase to 950,281 or 12 percent. The Black population is projected to total 574,911, or 8 percent, and remain relatively stable as a percentage of the total population over the projection period.

Figure 5.6. Ethnicity/Race Composition of Texans Aged 60+



VI. Implications of Population Growth for Medicaid Expenditures

Demographic changes in the older population may influence future enrollment in and costs for the Medicaid program. According to one study, Texas Medicaid enrollees of all ages are projected to increase to 4.3 million by 2030, a percentage increase of 87 percent over 2000 figures. Future costs, in 1994 dollars, for the Medicaid program over the same time period are also projected to increase. The percentage increase from 2000 to 2030 is 82 percent, from \$7.9 billion to \$14.4 billion (Murdock et al., 1997). The study did not make Medicaid projections for individual age segments within the total population. However, the projections do suggest significant increases for all segments.

Results of the present analysis show that the 65+ population makes up 13 percent of total program recipients but accounts for 33 percent of total Medicaid expenditures for all ages. Furthermore, within the 65+ Medicaid population, the majority of expenditures (73%) are paid on behalf of Texans aged 75 and older. Demographic projections for 2030 describe an older population with characteristics that are associated with disproportionately high Medicaid expenditures, increasing ethnic and racial diversity and growth in the advanced old age (75+) segment. Precise dollar amounts cannot be specified here. However, if current patterns continue, the elderly in 2030 may well account for substantially greater than 13 percent of the projected \$14.4 billion in program costs.

It should be noted that projections of expenditures for the Medicaid program by standard demographic projection techniques are subject to potential error and should be interpreted with caution. Relationships between demographic characteristics and socioeconomic and other factors can change over time, and alter the assumptions that were the basis for projections. For example, while population growth can increase enrollment, change in public policy, economic conditions, and other factors can also affect enrollment (Murdock et al., 1997).

VII. Conclusion

There are changes ahead for the state of Texas. The 60+ population is projected to dramatically increase its numbers, growing from 2.7 million in 2000 to 7.5 million in 2030, and expand as a proportion of the overall state population, from 13 percent in 2000 to 22 percent in 2030. Perhaps most importantly, the 60+ population is projected to become much more racially diverse, and the older population segment (75+), at high risk for long-term care expenditures, is projected to increase (especially after 2030).

The older population is not uniformly distributed across Texas. The major urban regions of Texas have the greatest absolute numbers of the aged, while the rural regions have the largest proportions of the aged. Significant variation in the distribution of ethnic and racial groups across the state also exists. The Hispanic population is concentrated in the southern and western border regions, while the Black population is concentrated in the eastern and northern-central regions. These variations might present unique experiences in the various regions across the state.

These projected trends, if they are borne out, could strain the state's capacity to deliver public services. Murdock et al. (1997) have argued that Texas must "change either its rates of population growth,...or alter what such growth will mean by changing the socioeconomic characteristics of its fastest growing population segments." The authors suggest that a future without change is sobering, however, a more promising future could materialize under different circumstances. The middle-aged Baby Boomers are in their peak earning years and have relatively small numbers of children to support financially. "If we wish to fix those things that need to be fixed, it is demographically easier to do so now than it will be in 2020 or 2030 when an unprecedented percentage of our residents will be elderly" (Murdock et al., 1997).

Technical Notes

- 1. Population Data Source- *Projections of the Population of Texas and Counties in Texas by Age, Sex and Race/Ethnicity for 1990-2030.* (Population Growth Scenario 1.0) Prepared by Population Estimates and Projections Program. Texas State Data Center. Texas Agricultural Experiment Station. Texas A&M University System, and The Center for Demographic and Socioeconomic Research and Education. Department of Rural Sociology. February 1998.
- 2. There are distinct differences between population estimates and population projections. A **population estimate** uses data already collected to assess demographic trends in the past. Population estimate models are built from historical data, beginning with the last census, and other data, such as, actual births and deaths, migration records, and the actual number of persons residing in special settings (prisons, nursing homes, etc.). On the other hand, **population projections** are used to make informed statements about future populations. Consequently, projection models must make assumptions about future demographic trends in births, deaths, and migration. Estimates and projections may be available for the same date, but not agree because they were produced at different times. In such cases, the U.S. Census suggests that estimates are the preferred data, unless the user's objective is to compare the number with others in the projected series (U.S. Census Bureau, 1996).
- 3. HHS Regions include the Area Agencies on Aging (AAA). The composition of AAA's within the HHS Regions are as follows: High Plains includes Panhandle & South Plains, Northwest includes North Texas & West Central Texas, Metroplex includes Tarrant, Taxoma, Dallas & North Central Texas, Upper East includes Ark-Tex & East Texas, Southeast includes Deep East Texas & South East Texas, Gulf Coast includes Harris & Houston-Galveston, Central includes Central Texas, Heart of Texas, Brazos Valley & Capital, Upper South includes Middle Rio Grande, Alamo, Bexar & Golden Crescent, West includes Permian Basin & Concho Valley, Upper Rio Grande is the Rio Grande AAA, and Lower South includes South Texas, Coastal Bend & Lower Rio Grande.
- 4. **Medicaid expenditure** data are for Federal fiscal year 1998. Statistical Report on Medical Care: Eligibles, Recipients, Payments, and Services: HCFA-2082, Texas Medicaid Report. **Medicaid enrollment** data were for the month of December, 1999. Research Department, Texas Health & Human Services Commission. January 2000.

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Texas Health and Human Services Regional Map

