

NURSING HOMES IN RURAL AND URBAN AREAS, 2000



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The Southwest Rural Health Research Center
The School of Rural Public Health
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EXECUTIVE SUMMARY

Introduction

Our society must rise to meet the challenges inherent in the growth of its elderly population. As we do so, it is far too simplistic to speak blithely of “the elderly” as if they were some undifferentiated class of citizenry. The phrase glosses over the rich diversity of the population it connotes. It is also far too simplistic to discuss “the nursing home industry” as if it were some homogeneous class of long-term care settings. Tremendous, and sometimes troubling, variation characterizes the places where people receive long-term nursing care.

This report focuses on two basic dimensions of this diversity among nursing homes. It presents information on Federally-certified nursing homes and the residents that live in those homes. It presents information on homes operating in settings that differ in their degree of rurality and their geographic location. The simple assumption here, and one borne out in this report, is that one will observe both interesting differences and commonalities along both dimensions.

This report provides descriptive data on both residents and homes. Explanation of the observed differences and similarities, however, does not reside within the purview of this limited effort. The implications of these data for questions concerning utilization of services, equity of access, or quality of care will not be explored at this time.

Data Sources

The data on which this report is based came from the US Census Bureau’s reports of the 2000 census and the Centers for Medicare and Medicaid Services (CMS) OSCAR database. The OSCAR database contains facility-level information on all Medicare or Medicaid certified nursing homes in the United States. Nursing home staff members complete the specific data collection forms that comprise the OSCAR database when the home is surveyed to determine its compliance with federal regulations governing the operation of nursing homes. These surveys should occur at least once every 15 months. The OSCAR data used in these analyses came largely from calendar year 2000, but also include some data from 1999 and 2001.

Data are presented in four categories reflecting the degree to which a home operates in a rural or urban area. The categories reflecting the degree of rurality are based on population and commuting patterns. They reflect the extent to

which the population in the zip code in which a home operates is located within or is integrated by its commuting pattern into an urban area, a large town, a small town or a largely isolated small town. This coding schema, Rural-Urban Commuting Area (RUCAs) codes, was developed by the WWAMI (Washington, Wyoming, Alaska, Montana, and Idaho) Rural Health Research Center. More information on the coding appears in the Appendix to this report.

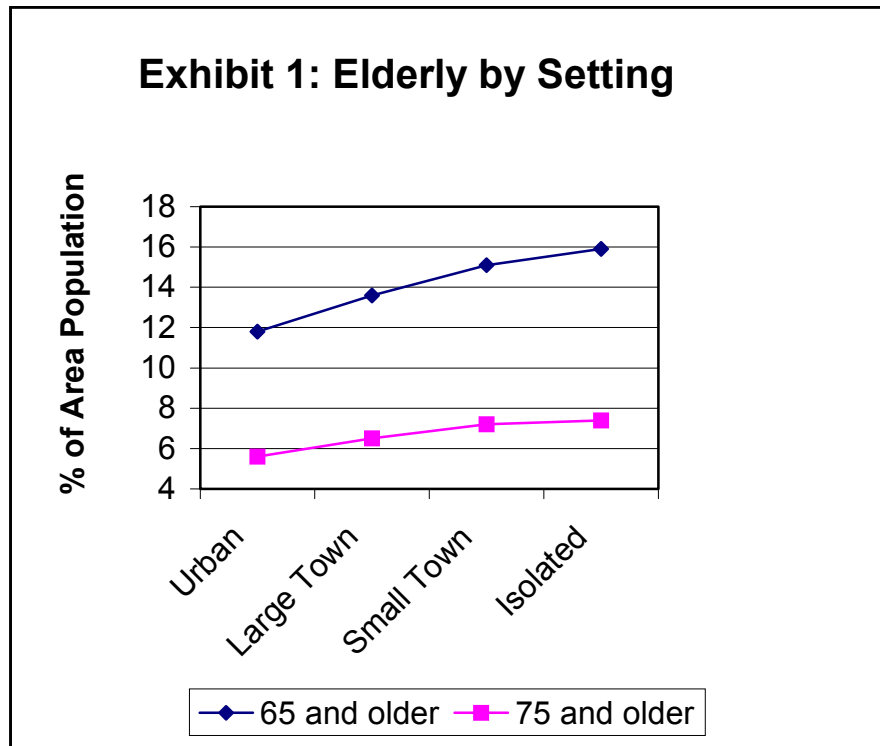
It is important to note that at times the data presented for each of the four condensed RUCA categories in a table will not add to the total for that table (i.e., the nation, a particular region, or a specific State). This is because approximately 0.5% of the homes lacked the data that would allow them to be fully classified within the RUCA schema.

Highlighted Findings

Population. Using our chosen classification scheme, 22.5% of the US population resided in areas outside major urban settings. Of those approximately 35 million individuals 65 and over, just over nine million (26%) resided outside large urban areas. Thinking of that population most likely to utilize long-term care services, the research team found 4,316,188 individuals 75 and older (26%) residing outside major urban centers.

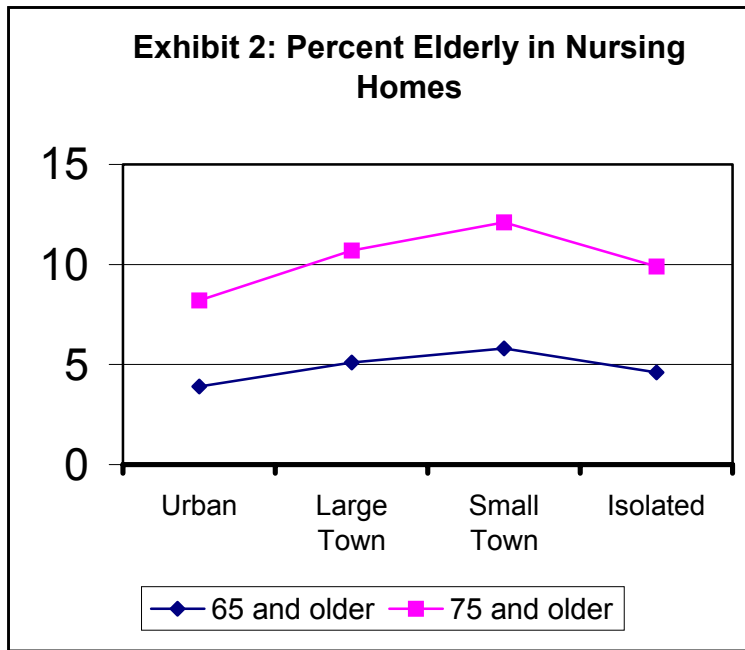
The proportion of the population that was elderly increased as one moves along the continuum from urban to more isolated areas. As Exhibit 1 demonstrates, under six percent of those in urban areas were 75 and over, while almost eight percent of those in relatively isolated areas were 75 years of

age and older. While less than 12% of those in urban areas were 65 and over, almost 16% of those in the most isolated areas were 65 years of age and older. However, some variation was observed across the CMS regional districts and States. For example, across the CMS regions, the percent of residents in



isolated, less populated areas who were 65 and older varied from a low of 14.6% to a high of 18.9%.

Nursing Home Utilization. These analyses are based on data from 17,253 certified nursing homes across the country. While rural areas of one type or another contained 26% of the elderly 75 and older, these same areas contained almost 40% of the nation's nursing homes. Nursing home capacity peaked in those areas integrated into small towns with almost 146 beds per 1,000 individuals 75 years old or older, while the nation as a whole had only 105.4 beds per resident over the age of 74.



With that capacity went utilization. These cross-sectional data indicate that almost one and one-half million individuals resided in nursing homes in this country in the year 2000.¹ In nursing homes in urban areas, for every 1,000 persons 75 and older, there were 82.3 nursing home residents. In areas including large towns, one saw 106.7 residents per 1,000; in areas surrounding small towns, one saw 121.5 NF residents per 1,000; in

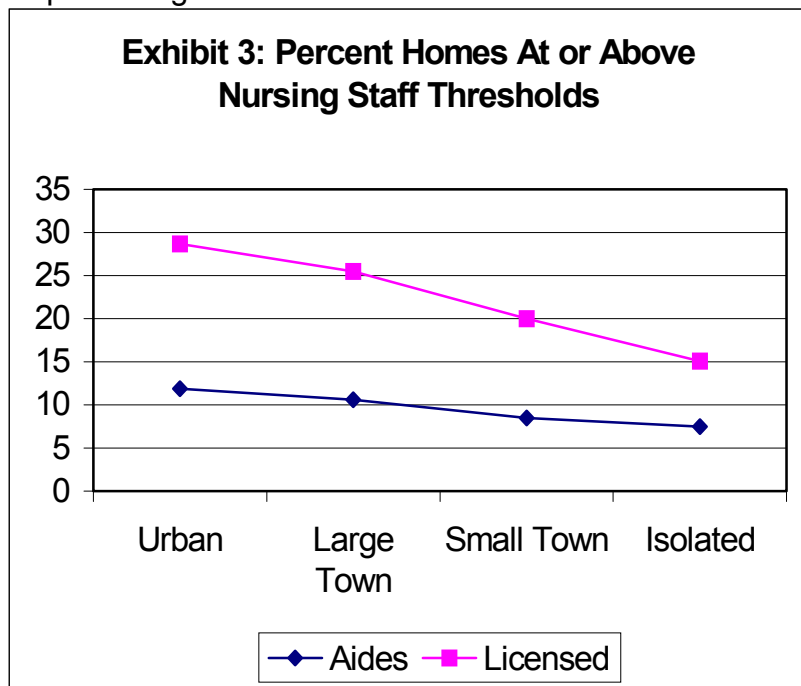
isolated smaller areas, one saw 99 nursing home residents per 1,000 individuals 75 and older. Exhibit 2 presents these data in a slightly different format. It translates these rates into the percentages of the area's elderly population who resided in nursing homes. As that exhibit indicates, the percent of the population 65 and older residing in nursing homes ranged from a low of 3.9 to a high of 5.8%. While among those 75 years of age and older, from 8.2% to 12.1% of that population resided in nursing homes. As with nursing home beds, it is in areas including small towns where one finds the highest rates of nursing home use. In these areas, just over 12% of the population aged 75 and older resided in nursing homes at any point in time during the year 2000. For this type of locale, CMS regions varied from approximately 5% to 15% in terms of the percentage of their population 75 and older who resided in nursing homes.

¹ While collected over an extended period, these data present a cross-section of nursing homes and the nursing home population. These data are not based on admissions and do not reflect the total number of individuals who used nursing home services at any time during 2000. At the time of the data collection, one person occupied a bed, though six other individuals may have occupied that same bed at other times during the year and then left the home.

Nursing Home Characteristics. While the elderly population varied by locale, so too did the nursing homes. Most noticeably, homes were smaller as one moved across the continuum from urban locales toward the most rural settings. In urban locales, the average nursing home had 112 beds; in the most isolated locales, the average home had only 70 beds. The percentage of homes that were operated on a for-profit basis followed the same pattern. Just over two-thirds of homes (67.7%) in urban areas operated under a for-profit ownership arrangement, while just over one-half of homes (53.5%) in isolated locales were for-profit entities. Government operated homes reversed this pattern. Only 3.2% of nursing homes operating in urban areas were government homes, but 16.2% of those operating in rural areas were government-owned. This pattern varied dramatically across regions. In some CMS regions over one-half of all homes in the most isolated areas were government-owned. In other regions, less than 6% of homes in isolated areas were government-owned.

State Surveys. Nursing homes in different locales fared differently in the survey or monitoring process carried out by State agencies. For the nation as a whole, homes in the most isolated areas were less likely to have been cited for a health deficiency. But this pattern varied across the regions of the country. In one region, homes in the isolated locales were more likely to have been cited for a health deficiency than were homes in any other setting. The same lack of consistency appeared in the percentage of homes that were cited for a serious deficiency. The national results imply that nursing homes in more isolated locales fared best, but the results in many CMS regions were inconsistent with this general pattern.

Staffing in Nursing Homes. A recent CMS project report for Congress identified nurse staffing thresholds below which residents were placed at risk of poorer outcomes.² The results of the study indicate that for longer-stay populations, the total nursing staff threshold was 4.1 total nursing hours per resident day (2.8 hours from nursing

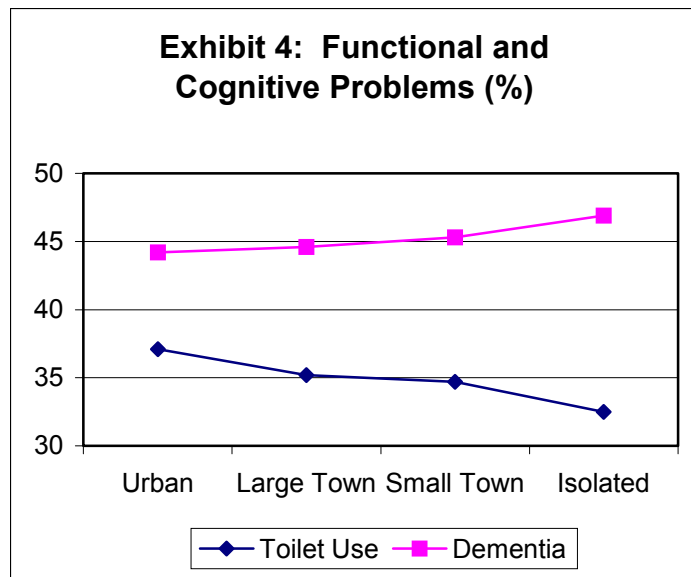


² Centers for Medicare and Medicaid Services, *Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes, Phase II Final Report*. December 2001.

aides and 1.3 hours from licensed nursing staff). In this report, the research team investigated what percentage of homes in each type of locale had staffing levels that met or rose above these thresholds. As Exhibit 3 indicates, relatively few homes across the nation met or exceeded these thresholds. Homes in urban locales were more likely to have met or exceeded both the licensed staff threshold (28.7%) and the nurse aide threshold (11.9%). Homes in the most isolated locales were the least likely to have met or exceeded these thresholds. Only 15.1% exceeded the licensed nurse threshold, and only 7.5% exceeded the nurse aide threshold. These results were relatively consistent across the regions. However, exceptions did exist. In a CMS region with relatively few homes outside urban areas, 54.5% of homes in isolated areas met or exceeded the licensed nurse threshold, in contrast to 24.3% of urban homes, and 45.5% of these homes met or exceeded the nursing aide threshold, in contrast to 15.9% of homes in urban locales.

Nursing Home Services. When one surveys the availability of specialized units for particular populations, almost invariably, those nursing homes in the most isolated areas had the fewest such units and the homes in urban areas had the highest prevalence of these units. But, in reality, the only special care units available with any frequency were units dedicated to caring for individuals with Alzheimer’s Disease. Almost 17% of the homes in urban areas had such units, while just over 13% of the nursing homes in the most isolated areas had Alzheimer’s units.

Resident Characteristics. A consistent finding among all regions was that the lowest percent of residents whose stay was paid by Medicare was observed in the most isolated areas. The rates of Medicaid use were high in all locales. Nationally, the highest prevalence of residents supported by Medicaid was in areas around small towns. In six of the ten regions, however, the locales with the highest prevalence of residents with stays supported by Medicaid were isolated areas.



Though there were some variations, a single basic pattern was observed nationally in indicators of functional ability, as measured by assistance provided in activities of daily living (ADLs). Functional impairment was highest in urban areas and lowest in the most isolated areas. This pattern held for all of the ADLs measured (i.e., bathing, dressing, toilet use, and eating). This basic pattern is

displayed in Exhibit 4, which charts differences in total dependency in toilet use. At the same time, the proportion of the residents with a diagnosis of dementia was highest (see Exhibit 4) in areas isolated from larger population centers.

With two relatively classic measures of process quality, one sees little difference across the locales. The national proportion of individuals physically restrained ranged only from 9.8% to 10.8% across the four locales. Also, nationally, the difference between the proportion of residents with a psychiatric diagnosis other than dementia and the proportion of residents receiving antipsychotic medications ranged only from a low of 4.5% to a high of 5.1%.

Organization of the Volume

Following this section, the volume provides detailed tables containing data on the nation as a whole, on each of the ten CMS regions, and on each of the States. The regional tables appear in numerical order (i.e., I-X). The State tables appear in alphabetical order. A series of technical notes follow these tables in the Appendix. These notes clarify the data definitions and the specific procedures used to produce both the database on which this report is based and the tables provided in the report.