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Aging in Place in Multifamily Housing

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Abstract

A significant proportion of people age 60 or older are living, and aging in place, in age-integrated multifamily housing developments. Multifamily housing is a major but largely unacknowledged and unexplored retirement housing choice of older people. Findings from a descriptive, exploratory study of one segment of multifamily housing are reported on (1) the extent of aging in place in multifamily housing, as measured by the number and proportion of householders age 60 or older, and (2) the level of environmental support for aging in place in these developments, as measured by the presence of 58 indicators of a development's capacity to enable elderly tenants to age in place successfully.

A mail survey of site managers collected data on 300 multifamily developments in New York state, representing 3 types of subsidized multifamily housing, 3 geographic settings, and 3 major government supervising agencies. Of the questionnaire's 130 items, 58 ($\alpha = .8237$) collected data on environmental elements that can affect the well-being of elderly tenants and their ability to successfully age in place. Factor analysis sorted the 58 indicators into 4 groups, which were used to score each development's level of environmental support. Associations are drawn between level of environmental support and five independent variables.

The results of the study show that aging in place is occurring at the same rate across all areas of the state and that the number of households headed by an elderly person varies widely. The results also show that the level of environmental support is low and varies widely within individual developments.

A significant number of elderly people (defined herein as those age 60 or older) are living, and aging in place, in age-integrated multiunit housing developments. These multifamily developments are not restricted to individuals over a specified age (as in planned senior housing) but are available to families and individuals of all ages. Multifamily residences have become a major but largely unacknowledged and unexplored retirement housing option for older people. Most elderly tenants moved into these buildings during their young- or middle-adult years and choose to remain living there through their elder years. Others move into multifamily buildings during their elder years as a retirement housing choice to be near friends and family or to take advantage of a building's location or other attractive attributes.

To begin filling a gap in the literature regarding tenant aging in multifamily housing, a descriptive, exploratory study of one segment of multifamily housing was conducted in 1998. Data were collected on 300 government-subsidized multifamily residences in New York state. This article reports on findings in two areas: (1) the extent of tenant aging in these developments (number and proportion of heads of household [hereafter, householders] age 60 or older) and (2) the level of environmental support for aging in place in these housing developments, as measured by the presence of 58 indicators of a development's capacity to enable elderly tenants to age in place successfully.

Background

Single-family homes and senior housing (specifically built for people over a specified age) are typically considered the major retirement housing options of elderly people. The majority of elderly people are homeowners: 82 percent of those age 60–74 and 76 percent of those age 75 or older own their own homes (U.S. Census Bureau, 1999). Increasing longevity and a sharp, steady rise in the proportion of elderly people in the population have set the stage for the development of multiunit senior housing, a construction effort that has continued across the country for more than 40 years. However, most older people prefer to remain living where they are and to age in place (Prosper, 1990; American Association of Retired Persons [AARP], 1996). Thus even though the overall number of elderly people continues to increase greatly, with those most vulnerable to frailty (age 85 or older) growing at the fastest rate, the proportion of all elderly people living in all types of planned senior housing (both subsidized and private-pay) has remained consistently between 5 and 10 percent (Donahue and Thompson, 1977; Hunt et al., 1984; Sherman, 1985; AARP, 1996).

The preference to age in place is supported by public policies that have widely expanded the availability of in-home and community-based services as long-term care cost-containment alternatives to institutional care. Additional support came from the 1999 federal court decision in *Olmstead v. L.C.*, which upheld an interpretation of the Americans with Disabilities Act and now requires states to ensure that people with disabilities, of all ages, be given opportunities to live in the most age-integrated setting possible. As a result, elderly people have come to view traditional senior housing not as an alternative retirement housing option but as a supportive-living option to be considered primarily when frailty severely compromises the ability to live independently on one's own. The average entry age into senior housing has risen steadily over the past 40 years to ages 80–85. The onset of Alzheimer's disease and other dementia conditions are a growing reason for relocation to senior housing, and relocation decisions are often made by the adult children of elderly people rather than by the elderly people themselves.

The U.S. Census Bureau does not distinguish between elderly people living in senior housing and those living in multifamily housing. However, in comparison, there are indications that an equal or greater number live in multifamily housing. Like older people in single-family homes, seniors in multifamily housing are exercising a preference to age in place. For example, Prosper (2000) found that 67 percent of elderly householders in multifamily housing remain living there until death (38 percent) or until experiencing sufficient impairment to enter a hospital (4 percent) or a nursing home (25 percent). Prosper also found that multifamily tenants are aging in place at the same rate across all geographic areas: 25 percent of urban, 24 percent of suburban, and 26 percent of rural multifamily households were headed by residents age 60 or older. Two national surveys of older people (AARP, 1989, 1992) documented the evolution of Naturally Occurring Retirement Communities, which are multifamily buildings or neighborhoods that were

designed for people of all ages but now include substantial proportions of residents age 60 or older. In both surveys 27 percent of the respondents reported living in buildings or neighborhoods in which 50 percent or more of residents were age 60 or older. The significant number of elderly people who remain to age in place in multifamily developments argues for recognizing these developments as a third major retirement housing option, one that differs substantially from single-family homes and planned senior housing.

Although senior and multifamily housing are both multiunit housing, multifamily housing differs from senior housing in several ways that have distinct environmental impacts on aging tenants. For example, in contrast to senior housing, multifamily housing is age-integrated—interactions and relationships among the tenants involve young children, teenagers, young adults, parents, and elderly people. Compared with senior housing managers, multifamily housing managers must balance the needs and often competing value systems and lifestyle norms of multiple age groups. Direct or indirect caregiving for elderly tenants is not a traditional expectation of multifamily managers. The physical design, location, staffing, services, and operating philosophy of multifamily housing are not meant to accommodate the specific needs of frail older people. In addition, elderly residents' expectations and attitudes about their housing often differ between the two housing types because multifamily housing is typically a longtime residence rather than a relocation destination in old age. Also, unlike senior housing, a sizable portion of multifamily housing is structured as cooperatives (tenant ownership and involvement in operational decisionmaking).

Although the overwhelming majority of older people exercise their preference to age in place, certain qualities of their living environment will determine whether aging in place will be a successful experience or a perilous one. In response to the implications of an aging U.S. population, an extensive body of research literature has been developed that emphasizes the impact of living environments on the physical and mental well-being of elderly people. This literature identifies choice as a critical element underlying the housing-related preferences of older people and finds a relationship between the well-being of elderly people and their ability to exercise choice in living arrangements (Altholz, 1989; Parr, Green, and Behncke, 1989; George, 1990; Gutheil, 1990; Sherman, 1990; Cox, 1990, 1993; Bechtel, 1997). Environmental-impact research has primarily focused on seniors who live in single-family homes, planned senior housing, and health-care facilities. In contrast, very little research has explored the extent to which a multifamily housing environment affects the well-being of its aging tenants or the extent to which multifamily housing may provide a viable living environment for successful aging in place.

The demographics of aging have also spurred public policymakers and researchers to explore ways to enhance the living environments of single-family homes and planned senior housing to accommodate aging residents' changing needs. This attention has resulted in enhancements such as increased use of universal design features and architectural elements to extend residents' independence and self-management, incorporation of safety devices and security measures to increase residents' comfort level in negotiating both the internal and external areas of their housing environments, development of various effective service and staffing strategies, more appropriate siting of new senior housing, increased efforts to integrate elderly people into the wider community, heightened support for informal family caregiving efforts, and growth in the specialized industry of senior housing management. Comparable attention has not been devoted to exploring the enhancement of multifamily housing as a residence for elderly people.

Methodology

To carry out the study, a 130-item survey instrument was constructed by the author. The author primarily drew on five sources: (1) the findings of a pilot survey of subsidized housing managers conducted in 1991 by the New York State Office for the Aging and Division of Housing and Community Renewal (Prosper, 1997); (2) an extensive review of the literature on aging, long-term care, and housing; (3) the seminal work of M. Powell Lawton (1975, 1980), who evaluated the environmental status of senior housing and the role of the housing manager; (4) the Multiphasic Environmental Assessment Procedure developed by Moos and Lemke (1996) to evaluate a variety of senior housing models and health-related facilities; and (5) pretest activities and the author's 15 years of professional experience in the area of living environments for elderly people. In fall/winter 1998, a mail survey of 1,348 government-subsidized multifamily housing developments was conducted in New York state. The questionnaire was completed by 300 site managers. Analysis showed that the 300 developments were representative of the sample's 1,348 developments in terms of housing type, government supervising agency, and setting (urban, suburban, or rural).

Sample

Government-subsidized housing developments use public funds for construction, operation, or rental subsidies, and units are targeted to individuals and families whose household income is below a specified level. The large variety of subsidized multifamily housing that exists in New York state basically falls into three types: public housing, publicly assisted housing, and Mitchell-Lama housing.¹ Subsidized multifamily housing was chosen for the study because housing lists from which a broad-based sample could be drawn were available from the major federal and state government housing agencies (New York state offices of the U.S. Department of Housing and Urban Development [HUD], U.S. Department of Agriculture's Rural Development Office [RD], and the New York State Division of Housing and Community Renewal [DHCR]). The study did not include market-rate multifamily housing developments, which are privately financed and available to tenants who are able to pay market rental rates, because no centralized or substantial lists of this housing segment existed from which to construct a broad-based sample.

New York state was chosen for this "single-case" study because of its large elderly population, its high ratio of renter-to-owner households, its considerable stock and variety of subsidized multifamily housing, and the significant diversity of the state's population and geographic areas. The state provides a substantial base for data collection, and aspects of its diversity are characteristic of numerous discrete areas of the country, which suggests that findings may be applicable for subsequent research in other places.

Environmental Support

Of the questionnaire's 130 items, 58 ($\alpha=.8237$) collected data on environmental elements that can affect the well-being of elderly tenants and their ability to successfully age in place. For reporting purposes, factor analysis was used to categorize the 58 indicators of environmental support into 4 groups:

- Group 1: Operating attitudes and policies ($\alpha=.6598$).
- Group 2: Activities and services ($\alpha=.8740$).
- Group 3: Safety and convenience features ($\alpha=.7641$).
- Group 4: Intergenerational interactions ($\alpha=.7565$).

Several features of the physical housing environment, although critical to a supportive environment for elderly residents, were not included in this study because valid responses would rely on onsite assessment.

Group 1 Indicators: Operating Attitudes and Policies

The 18 indicators of support in group 1 assess the manager's attitudes and the operational policies and decisions of the manager's employer (management company, development's

Exhibit 1

Group 1 Support Indicators: Operating Attitudes and Policies

1. Manager's attitude about whether tenants should age in place in multifamily housing.
2. Manager's attitude about whether caregiving tasks should be a part of the job for the manager or other housing staff.
3. Number of times in the past 3 months the manager performed each of 14 caregiving tasks for elderly tenants.
4. Proportion of manager's time spent on elderly tenants' issues or problems.
5. Proportion of manager's time spent on nonelderly tenants' (children, teenagers, parents, young adults) issues or problems.
6. How satisfied or unsatisfied the manager feels, overall, about his or her current job.
7. Whether the manager gets inservice training on aging issues or topics.
8. How many times, during the past 12 months, the manager attended outside training on aging issues or topics.
9. Whether the manager's employer pays for the manager's aging-related training.
10. The policy of the manager's employer about the manager helping elderly tenants with aging-related needs.
11. Whether the manager's office is located in the development.
12. Whether a community room is located in the development.
13. Whether laundry facilities are available in the development.
14. Whether space is available in the development for a services coordinator.
15. Whether space is available in the development for personal care or health-related services personnel.
16. Whether all languages spoken by a significant number of tenants are spoken by one or more housing staff.
17. Whether the manager has an academic degree or certificate in gerontology, social work, human services, or other aging-related field.
18. Whether the manager has a professional certificate, license, or degree in managing or operating senior housing or a residential health care facility.

owner, board of directors, or government supervising agency) regarding elderly tenants and aging in place (exhibit 1). Group 1 indicators include the manager's attitude regarding whether residents *should* age in place in multifamily housing, attitude toward directly assisting elderly tenants in ways that could be considered nontraditional management tasks,² and whether the manager personally provides direct assistance to elderly tenants.³ These indicators also include the employer's policies concerning whether the manager should actively assist elderly tenants. Also included are operational decisions by the employer that affect the manager's job performance, including the manager's inservice and external aging-related training opportunities, whether the employer pays for such training, the manager's academic and professional certification in aging-related areas, whether languages spoken by tenants are spoken by housing staff, and the manager's level of job satisfaction. Additional group 1 indicators include the availability of optional features in the development that are indicators of the manager's and employer's policies regarding creating an aging-accommodating environment, including a community room, laundry facilities, and space for a services coordinator or other services personnel.

Group 1 indicators also include the manager's active involvement in nontraditional tenant-related tasks involving children, teens, parents, and younger adults living in the development. Such involvement supports the needs of all tenants, thereby reducing environmental chaos, destructive behaviors, and interpersonal conflict, which in turn fosters a more stable environment in which elderly tenants can feel secure and safe.

The housing site manager plays a critical role in setting the overall tone of the housing environment's quality of life and in the smoothness of the development's day-to-day operation (Callahan and Lanspery, 1991). The manager's attitude toward aging in place and elderly tenants has an impact on creating a supportive environment for aging in place. The policies of the manager's employer or the development's owner can promote or inhibit a manager's efforts to create such an environment (Prosper, 1997, 2000). Research indicates that by simply responding to elderly tenants' requests for help, although not explicitly required to do so, many multifamily housing managers have become directly involved in performing a variety of the caregiving and service tasks that are typically performed by family members; other informal caregivers, and service providers (Callahan and Lanspery, 1991; Holland et al., 1995; Prosper, 1997, 2000). In planned *senior* housing, increasing consideration is being given to supporting the site manager in this helping role, to meeting the need for aging-specialized management skills, and to providing managers and other housing staff with ongoing aging-related training. Such consideration has not been generally extended to site managers of multifamily housing (Cunningham and Spencer, 1996; Prosper, 1997, 2000).

Other findings from Prosper's (2000) study, as well as research by others, show that managers of subsidized housing identify insufficient time, skills, and resources to perform these nontraditional tasks as among their major workplace issues. The attitudes and policies of the manager's employer can actively support or thwart the manager's efforts to address nontraditional tenant-related issues. In cases where employers actively discourage managers from helping elderly tenants or leave these decisions to the manager, the supportive framework is lacking that would enable managers to effectively address the issues of insufficient time, skills, and resources.

Group 2 Indicators: Activities and Services

The 11 indicators of support in group 2 measure the presence of services that accommodate aging-related frailties and support successful aging in place (exhibit 2).

Elderly residents with impairments require easy access to necessary services if their home is to be considered an environment that accommodates successful aging in place. The indicators of support in group 2 assess whether six services that address aging-related physical, mental, or social frailty are regularly provided in the development—either directly by the housing owner or through a formal arrangement with a community-based agency.

Often, even when services are available in a development or in the wider community, frail, elderly tenants are unaware of them, lack the stamina or skills to gain access to the services, are dissatisfied with the services, or refuse to use them. To address these issues, the indicators in group 2 include the availability of a resident services coordinator (or resident advisor) for elderly tenants, whose primary function is to informally monitor the status of all elderly tenants in the development, be available for counseling and information, and help them access appropriate help and services from within the development and from the wider community. This staff function can be carried out by the manager, a specialized housing staff, or by staff from a community-based agency.

The indicators in group 2 also include the provision of recreational activities, educational programs, social programs, supportive services, and a resident services coordinator for nonelderly tenants. A supportive environment for children, teenagers, parents, and younger adults contributes to the accommodating environment for elderly tenants by reducing the overall level of problems, conflicts, and chaos within the development.

Exhibit 2

Group 2 Support Indicators: Activities and Services

1. Whether recreational activities are provided in the development for elderly tenants.
2. Whether social services or educational programs are provided in the development for elderly tenants.
3. Whether supportive services (blood pressure screening, adult day program, house-keeping, and so forth) are provided in the development for elderly tenants.
4. Whether a resident services coordinator is available in the development for elderly tenants.
5. Whether health-related services (home health aide, health clinic, nursing care, personal care, and so forth) are provided in the development for elderly tenants.
6. Whether a dining/meals program is provided in the development for tenants.
7. Whether transportation services are provided in the development for tenants.
8. Whether recreational activities are provided in the development for nonelderly tenants.
9. Whether social services or educational programs are provided in the development for nonelderly tenants.
10. Whether a resident services coordinator is provided in the development for nonelderly tenants.
11. Whether supportive services (mental health services, child daycare, jobs training, and so forth) are provided in the development for nonelderly tenants.

Group 3 Indicators: Safety and Convenience Features

The 19 indicators of support in group 3 address the availability of facilities necessary for conducting the routine tasks of daily life and the availability of features that provide tenants with a safer environment as well as an enhanced perception of security as they go about their daily lives in the housing environment (exhibit 3).

As elderly people age, staying where they are can remain a viable option for a longer period if they have easy access to the types of facilities necessary for conducting the routine tasks of daily life. The indicators in group 3 include the availability of 13 stores, businesses, activities, and healthcare facilities, either in the development or within a quarter mile of it. One indicator addresses the availability of handrails in hallways to facilitate

Exhibit 3

Group 3 Support Indicators: Safety and Convenience Features

1. Is the main entrance door locked, with buzzer entry system?
 2. Are security staff on duty 24 hours per day?
 3. Is a staff person dedicated to monitoring access to the building?
 4. Is the outside of the building well-lighted at night?
 5. How safe do the tenants perceive the development's surrounding neighborhood to be?
 6. Are there handrails in the hallways?
 7. Is a beauty/barber shop located in the development?
 8. Is a convenience store located in the development or on the property?
 9. Is a grocery store located within a quarter mile of the development?
 10. Is a drug store located within a quarter mile of the development?
 11. Is a post office located within a quarter mile of the development?
 12. Is a bus stop located within a quarter mile of the development?
 13. Is a bank located within a quarter mile of the development?
 14. Is a shopping area or mall located within a quarter mile of the development?
 15. Is a senior citizens center located within a quarter mile of the development?
 16. Is a senior citizens congregate meal site located within a quarter mile of the development?
 17. Is a community center with recreational activities and exercise equipment located within a quarter mile of the development?
 18. Is a hospital located within a quarter mile of the development?
 19. Is a health clinic located on the property?
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movement within the development. Because many elderly people no longer drive, a quarter mile was chosen as a reasonable walking distance for elderly people who are able to walk outside the development and for family members or staff people who are helping them.

Although elderly people are statistically less likely to be the victims of crime than younger people, older people have a greater fear of crime than younger people do. This factor can affect how safe elderly people feel in their homes and their decisions about venturing out of their residences to conduct the routine tasks of daily life. Group 3 includes five indicators concerning tenants' safety and their perceptions of safety.

Group 4 Indicators: Intergenerational Interactions

The 10 indicators of support in group 4 reflect the manager's perception of relationships between elderly and nonelderly tenants living in the development (exhibit 4). Nine of the indicators describe the manager's assessment of these interactions. A 10th indicator reports whether managers consider the presence of elderly tenants to be an undue burden on them or on other housing staff. Such attitudes may affect an elderly tenant's comfort level in interacting with housing personnel and in approaching them with needs or concerns.

The majority of older people prefer living in an age-integrated environment (Prosper, 1990; AARP, 1986, 1989, 1992, 1996). Such an environment can accommodate successful aging in place only if relationships among the age groups are characterized by mutually positive interactions. The interactions that elderly tenants have with the people around them (housing staff, nonelderly tenants) can encourage them to socialize, communicate, and move about with a high level of comfort. Or, these interactions can prompt elderly tenants to avoid or fear these other individuals or lead them to remain isolated in their own apartments. Conversely, the attitudes and behaviors of elderly residents also

Exhibit 4

Group 4 Support Indicators: Intergenerational Interactions

1. Extent of interaction among the various tenant age groups.
2. Are issue-interactions between elderly and nonelderly tenants similar to or different from issue-interactions among tenants of the same age groups?
3. Extent to which nonelderly tenants are willing to help elderly tenants.
4. Extent to which elderly tenants enjoy the presence of young children.
5. Extent to which nonelderly tenants like having elderly tenants in the development.
6. Extent to which young children tease and taunt elderly tenants.
7. Extent to which elderly tenants are afraid of young adult and teenaged tenants.
8. Extent to which elderly tenants complain about the noise and activities of young children.
9. Does the presence of elderly tenants place an undue burden on the manager or other housing staff?
10. Does the presence of elderly tenants place an undue burden on nonelderly tenants?

affect tenant interactions, either motivating nonelderly tenants and housing staff to avoid elderly residents or treat them badly or prompting them to consider elderly tenants as desirable neighbors and to assist them when help is needed.

Analysis

Because so little research has been carried out on aging in place in multifamily housing, there was little basis for developing hypotheses regarding factors that influence the presence of support elements or the extent of tenant aging. For this exploratory study, four major characteristics of multifamily developments were selected as independent variables, which can provide both a basis for further research as well as comparative information for decisionmaking by public policymakers: location, setting, housing type, and government supervising agency.

- *Location.* The location of the development (New York City or rest of state) was selected as an independent variable because almost half of the state's elderly householders are congregated within the five boroughs of New York City, while the remainder are spread across the rest of the state. In addition, the renter-to-homeowner ratio is significantly higher in New York City than in the rest of the state.
- *Setting.* The setting of the development (urban, suburban, or rural) was chosen as an independent variable because of several critical differences among these areas of the state. The availability of and access to services, amenities, transportation, and other resources are much greater in urban areas than in suburban and rural areas. The perception of safety is greater in suburban and rural areas than in urban areas. There are also major differences in the size and age of developments in the three settings, and socioeconomic, cultural, and ethnic factors vary substantially between urban and suburban/rural areas of the state.
- *Housing type.* Housing type (public housing, publicly assisted housing, and Mitchell-Lama developments) was chosen because of differences in development size, age, ownership, and management characterizing the three types as well as variations in tenant income profiles among the three types.
- *Government supervising agency.* The government agency responsible for supervising the development (HUD, RD, or DHCR) was selected as an independent variable because of variations among the three in operating and funding policies and procedures as well as the amount of direct oversight of developments provided by each agency.

The number and proportion of elderly householders in the development were used to measure the extent of tenant aging. Number and proportion were treated as dependent variables to measure any associations between tenant aging and the four independent variables.

Answer formats for the 58 indicators of support included multiple choice, Likert-type scales, and yes/no checkoff. To measure a development's level of support, respondents' answers were analyzed and recoded as scores of 1 (yes, positive, or present: supports aging in place) or 0 (no, negative, or not present: does not support aging in place). When measuring associations with levels of support (dependent), number of elderly householders was treated as an independent variable along with location, setting, housing type, and government supervising agency. Chi-square and bivariate analyses were used to measure associations between variables.

Findings and Discussion

Extent of Tenant Aging

Of the 300 developments in the study, 294 reported their number of elderly householders (exhibit 5). In total, 26 percent (15,576) of the 59,544 households are headed by elderly individuals. This is essentially the same as the proportion of elderly householders (27 percent) among all of New York state's renter households (New York State Office for the Aging, 1994). The mean *proportion* of elderly householders among the 294 developments is 24 percent. The similarity in proportion of elderly householders among subcategories in both location (27 percent, 24 percent) and setting (25 percent, 24 percent, 26 percent) indicates that aging in place is occurring at essentially the same rate across all areas of the state.

The results of the chi-square analysis (exhibit 5) show that a significant relationship exists between the proportion of elderly householders and only one independent variable: housing type. The greater proportion of elderly householders in Mitchell-Lama housing (34 percent) may be related to the much older age of these developments (construction under this program ended in the 1970s) compared with the mix of ages in public housing and publicly assisted housing developments (where construction continues). In addition, 31 percent of the Mitchell-Lama developments are structured as cooperatives rather than rental properties. The homeownership character of cooperatives increases the likelihood of tenants remaining to age in place longer than those in rental units.

Exhibit 5

Elderly Householders, by Housing Development Characteristic

Housing Development Characteristic	Housing Developments (n)	Proportion (%)		n	
		Mean	Range	Mean	Range
All developments	294	24	0-100	53	0-1,000
Location					
New York City	96			123	0-1,000
Rest of state	198			19	0-250
Setting					
Urban	167			81	0-1,000
Suburban	50			25	0-111
Rural	77			11	0-80
Housing type					
Public housing	80	21	0-100	85	0-975
Publicly assisted	180	25	0-83	17	0-144
Mitchell-Lama	34	34	0-79	170	0-1,000
Government supervising agency					
HUD	165			56	0-975
RD	48			9	0-61
DHCR	59			59	0-1,000

HUD = U.S. Department of Housing and Urban Development, RD = U.S. Department of Agriculture's Rural Development Office, DHCR = New York State Division of Housing and Community Renewal.

Notes: Chi-square analysis was used to measure associations between both proportion and number of elderly householders and location, setting, housing type, and government supervising agency. All cells with reported findings show statistically significant results ($p < .03$). Associations that are not statistically significant are not reported. Elderly householders are age 60 or older.

Exhibit 5 also shows a significant relationship between the number of elderly householders in a development and all four independent variables. Variation in the number of elderly householders among the subcategories of all four independent variables is related to the larger size of developments located in urban areas compared with those in suburban and rural areas, the greater likelihood of large public housing and Mitchell-Lama developments being located in urban areas, and the location of all 48 RD developments (which are small in size) in rural areas.

The range in all subcategories shows that both the proportion and the number of elderly householders vary dramatically among individual developments. This variation reflects the different ages of the developments themselves (an older development provides more years for tenants to age in place), the availability of alternative housing options in a development's locality, management philosophies (such as attitudes toward aging in place and accommodating tenants' frailties), and management policies (such as matching household size to size of apartment unit and directing elderly applicants into senior housing units).

Support in Multifamily Housing Overall

To provide an overall picture of support for aging in place among the 300 developments, respondents' positive answers (support scores) to the questionnaire's 58 indicators of support were aggregated. The maximum possible total score (number of support indicators present) for each development is 58. For the 300 developments, both the median and mean total scores are 23. Total scores range from 1 to 46, indicating that extreme variation exists in the level of support among the developments.

A positive association exists between a development's total score and the number of elderly householders in the development ($r = .311, p = .000$). Exhibit 6 categorizes the number of elderly householders for reporting purposes. When the influence of the small number of cases (5) in the 501+ category is removed, a significant relationship continues to exist between total score and the number of elderly householders ($r = .333, p = .000$). Overall, although the number of indicators increases as the number of elderly householders increases, the median number of indicators does not rise above 50 percent of the possible maximum score of 58 until the number of elderly householders in a development rises above 300.

Exhibit 6

Level of Support for Aging in Place, by Number of Elderly Householders Living in Development

Elderly Householders Living in Development (n)	Housing Developments (n)	Support Indicators Present (n)	
		Median	Range
0-10	132	20	1-45
11-25	63	22	10-41
26-50	41	25	10-38
51-100	25	24	13-39
101-300	20	25	15-59
301-500	8	32	15-46
501+	5	30	26-41

Notes: Maximum possible number of support indicators present is 58. Elderly householders are age 60 or older. Association between number of elderly householders and level of support using continuous variables is $r = .311, p = .000$; using categories, $\chi^2 = 37.506, \phi = .357; p = .004$.

Support scores vary widely among developments, with variation greatest among those developments with the fewest number of elderly householders (0–10 and 11–25 elderly householders). The widely varying scores, particularly among multifamily housing developments with fewer numbers of elderly householders, suggest a need for further research to assess the number of *frail* elderly householders in each development, identify any association between tenant frailty and level of support, and identify alternative factors that have a greater influence on the presence of indicators of support. The importance of assessing the relationship between tenant frailty and level of support is suggested by other findings in this research project, which show that the majority (67 percent) of elderly householders in multifamily housing remain living there until death or until experiencing sufficient impairment to enter a hospital or a nursing home (Prosper, 2000). According to the New York State Office for the Aging (1995), the state's elderly renters are twice as likely as elderly homeowners to be living alone, elderly renters are three times as likely as elderly homeowners to be living below the poverty level, and elderly individuals in the lowest income quintile are more than three times as likely to be impaired as those in the highest quintile. These circumstances increase the need for a supportive living environment.

Exhibit 7 shows small associations between the number of support indicators present and the development's location, setting, and housing type. It shows no association with a development's government supervising agency.

The associations in exhibit 7 may reflect the relationships that exist among the independent variables. All developments in New York City are urban, and all suburban and rural developments are located in the rest of the state. The majority of public housing and Mitchell-Lama developments are located in urban areas compared to publicly assisted developments, which are scattered across all regions of the state. The larger median scores for New York City, public housing, and Mitchell-Lama developments reflect the association shown in exhibit 6 between the number of elderly householders and support

Exhibit 7

Level of Support for Aging in Place, by Housing Development Characteristic

Housing Development Characteristic	Housing Developments (n)	Support Indicators Present (n)	
		Median	Range
All developments	300	23	1–46
Location			
New York City	100	24	1–46
Rest of state	200	22	1–41
Setting			
Urban	173	23	1–46
Suburban	50	24	12–41
Rural	77	20	1–34
Housing type			
Public housing	81	24	1–46
Publicly assisted housing	185	22	1–45
Mitchell-Lama housing	34	24	12–40

Notes: Maximum possible number of support indicators present is 58. Associations exist between level of support and location ($\chi^2=8.830$, $\phi=.172$, $p=.032$), setting ($\chi^2=18.634$, $\phi=.249$, $p=.005$), and housing type ($\chi^2=13.751$, $\phi=.214$, $p=.033$). No association exists between level of support and government supervising agency.

scores. Both the comparatively much larger size and much older development age of urban public housing and Mitchell-Lama developments result in greater numbers of elderly householders in these developments. In addition, the cooperative (tenant ownership) structure of a significant number of Mitchell-Lama developments increases the potential of residents to remain living in those developments.

Analysis by Indicator Group

Scores for all developments were aggregated for each of the four support groups. Overall, developments scored highest in intergenerational interactions (median=6 indicators present out of a possible 10, or 60 percent) and in operating attitudes and policies (median=9 out of 18, or 50 percent). The multifamily developments tended to score lower in safety and convenience features (median=8 out of 19, or 42 percent) and lowest in activities and services (median=1 out of 11, or 9 percent).

Support Score by Number of Elderly Householders. Exhibit 8 shows that a relationship exists between the number of elderly householders in the development and three indicator groups: operating attitudes and policies, activities and services, and safety and convenience features. There is no association with intergenerational interactions.

Although scores increase in tandem with the number of elderly householders for both the activities and services group and the safety and convenience features group, the median score for activities and services never reaches 50 percent of the possible maximum score until the number of elderly householders reaches 301 or more. The median score for safety and convenience indicators rises above 50 percent of the maximum when the number of elderly householders reaches 101 or more. For the three indicator groupings in exhibit 8, the wide range in scores within each category of numbers of elderly, including those with few elderly householders, indicates the need for additional research to identify alternative variables or characteristics of elderly householders (such as frailty, living alone, gender, or elder age cohort) that may have a greater influence on the presence of indicators of support in a development beyond the mere number of elderly.

Support Scores by Location, Setting, Housing Type, and Government Supervising Agency. As exhibit 9 shows, associations exist between support scores and four of the development characteristics. The development's housing type is the only independent variable that is related to scores for all four indicator groupings. Location and setting are highly correlated variables ($r=.541$, $p=.000$), and scores for groups 2, 3, and 4 are associated with both of these variables. Only groups 2 and 3 are associated with a development's government supervising agency.

Analysis for Group 1: Operating Attitudes and Policies. Group 1 indicators measure (1) the manager's and owner's attitudes toward tenants, operations, and oversight by owners, supervisors, and government agencies and (2) available features in the development that reflect operating policy decisions. The presence of both types of indicators affects the level of support in a housing environment for successful aging in place. These attitudes, and decisions inform the operational environment of the development.

Several open-ended questions in the research project regarding the manager's job environment (Prosper, 2000) included a substantial number of qualitative responses detailing managers' concerns about a lack of decisionmaking autonomy and flexibility regarding meeting tenants' needs; a lack of sufficient time, equipment, and money to do the job; a lack of support and communication from owners, management company employers, and the supervising government agency regarding the reality of the job's challenges; insufficient resources; a lack of opportunities to implement workable strategies; a lack of

Exhibit 8

Level of Support for Aging in Place, by Elderly Householders Living in Development and Support Indicator Group

Elderly Householders Living in Development (n)	Housing Developments (n=294)	Support Indicators Present (n)					
		Group 1: Operating Attitudes and Policies		Group 2: Activities and Services		Group 3: Safety and Convenience Features	
		Median	Range	Median	Range	Median	Range
0-10	132	7	1-16	0	0-10	7	0-15
11-25	63	7	3-17	0	0-9	8	0-16
26-50	41	8	3-15	2	0-8	8	2-16
51-100	25	10	4-14	2	0-9	9	3-15
101-300	20	8	4-13	4	0-9	10	5-15
301-500	8	9	6-13	5.5	0-11	12.5	7-17
501+	5	9	9-13	6	3-10	12	11-13

Notes: Maximum possible number of support indicators present is 18 in group 1, 11 in group 2, and 19 in group 3. Associations exist between number of elderly householders and group 1 ($\chi^2=40.021, \phi=.369, p=.002$), group 2 ($\chi^2=64.104, \phi=.467, p=.000$), and group 3 ($\chi^2=51.937, \phi=.420, p=.000$). No association exists between number of elderly householders and group 4 (intergenerational interactions).

Exhibit 9

Level of Support for Aging in Place, by Housing Development Characteristic and Support Indicator Group

Housing Development Characteristic	Support Indicators Present (n)											
	Group 1: Operating Attitudes and Policies			Group 2: Activities and Services			Group 3: Safety and Convenience			Group 4: Intergenerational Interactions		
	Median	Range		Median	Range		Median	Range		Median	Range	
Location (n=300)												
New York City	0	0-11	10	0	0-11	10	0	0-17	4	0-9	0-10	0-10
Rest of state	0	0-10	7	0	0-10	7	0	0-16	6	0-10	0-10	0-10
Setting (n=300)												
Urban	1	0-11	9	1	0-11	9	1	0-17	5	0-10	0-10	0-10
Suburban	0	0-9	8	0	0-9	8	0	2-16	6	1-10	0-10	0-10
Rural	0	0-7	6	0	0-7	6	0	0-13	6	0-10	0-10	0-10
Housing type (n=300)												
Public housing	9	1-17	8	3	0-11	8	3	0-14	5	0-10	0-10	0-10
Publicly assisted	7	1-15	8	0	0-10	8	0	0-16	6	0-10	0-10	0-10
Mitchell-Lama	8	4-14	10	1	0-9	10	1	5-17	4	0-10	0-10	0-10
Government supervising agency (n=272)												
HUD	0	0-11	9	0	0-11	9	0	0-17	9	0-17	0-17	0-17
RD	0	0-5	7	0	0-5	7	0	0-12	7	0-12	0-12	0-12
DHCR	1	0-10	7	1	0-10	7	1	0-16	7	0-16	0-16	0-16

Notes: Maximum possible number of support indicators is 18 in group 1, 11 in group 2, 19 in group 3, and 10 in group 4. Associations exist between location and group 2 ($\chi^2 = 10.354$, $\phi = .186$, $p = .006$), group 3 ($\chi^2 = 50.375$, $\phi = .410$, $p = .000$), and group 4 ($\chi^2 = 12.191$, $\phi = .202$, $p = .007$). No association exists between location and group 1 (operating attitudes and policies). Associations exist between setting and group 2 ($\chi^2 = 17.018$, $\phi = .238$, $p = .002$), group 3 ($\chi^2 = 29.147$, $\phi = .312$, $p = .000$), and group 4 ($\chi^2 = 21.933$, $\phi = .270$, $p = .001$). No association exists between setting and group 1 (operating attitudes and policies). Associations exist between housing type and group 1 ($\chi^2 = 13.442$, $\phi = .212$, $p = .037$), group 2 ($\chi^2 = 40.080$, $\phi = .366$, $p = .000$), group 3 ($\chi^2 = 17.517$, $\phi = .242$, $p = .008$), and group 4 ($\chi^2 = 14.431$, $\phi = .219$, $p = .025$). Associations exist between government supervising agency and group 2 ($\chi^2 = 11.651$, $\phi = .207$, $p = .020$) and group 3 ($\chi^2 = 15.692$, $\phi = .240$, $p = .016$). No association exists between government supervising agency and group 1 (operating attitudes and policies) or group 4 (intergenerational interactions).

training; inflexible regulatory requirements regarding the physical plant and tenant-related procedures; and a lack of policy or job descriptions stipulating the manager's responsibilities regarding the issues of elderly tenants.

The attitudes and decisions measured, together with the evidence of managers' concerns, might lead to a conclusion that group 1 scores could be largely attributed to the regulations and policies of a development's government supervising agency. However, no association was found between group 1 scores and the development's government supervising agency, suggesting that alternative explanations must be sought.

Exhibit 9 shows that scores for operating attitudes and policies are related to only one variable: housing type. Scores vary substantially among all developments, and only public housing has a median score of at least 50 percent of the maximum possible. Median and range scores for public housing (9, 1–17) and Mitchell-Lama developments (8, 4–14) are higher and greater, respectively, than those of publicly assisted developments (7, 1–15). Differences may reflect the longtime, stable ownership and management of public housing and Mitchell-Lama developments compared with those of publicly assisted developments. They may also reflect the tenant-ownership characteristics of the primarily cooperative-structured Mitchell-Lama developments as well as the typically older ages of public housing and Mitchell-Lama developments compared with the ages of publicly assisted developments.

Analysis for Group 2: Activities and Services. Both the availability and the accessibility of community-based aging services and activities are substantially greater in urban communities than in suburban and rural communities in the state. This provides greater opportunity for these indicators of support to be made available to tenants on a planned, regular basis. However, exhibit 9 shows that associations between group 2 scores and both location ($\phi=.186$) and setting ($\phi=.238$) are small. The range of scores is very similar for New York City (all urban) and the rest of the state (urban, suburban, and rural). Although, across all developments, the median scores in group 2 are extremely low, the presence of indicators of activities and services is more highly associated with housing type than the other three independent variables. Scores for public housing (median=3) and Mitchell-Lama developments (median=1) are higher than those for publicly assisted (median=0) developments. These patterns may reflect the association between the number of elderly householders and support scores shown in exhibit 6. Public housing (mean number of units=350, mean number of elderly householders=85) and Mitchell-Lama (mean number of units=518, mean number of elderly householders=170) developments are much larger in size than publicly assisted developments (mean number of units=85, mean number of elderly householders=17), with correspondingly greater numbers of elderly householders.

Of the public housing developments in the study, 84 percent are supervised by HUD. The higher scores for public housing developments may reflect HUD's governing policies to house a more vulnerable tenant population (very low-income, ethnic, homeless, special-needs individuals). Compared with RD and DHCR, HUD has a stronger history of designing strategies for successful development operation and management, including the incorporation of a variety of resources, services, and activities for tenants as well as training for managers. For example, other findings in the research project found that 49 percent of public housing managers, compared with 32 percent of publicly assisted housing managers and 22 percent of Mitchell-Lama managers, receive aging-related inservice training (Prosper, 2000). In addition, many public housing tenants are clients of formal, community-based service agencies when they enter the development. These agencies often continue to provide services to these tenants, often in formal collaboration with the housing authorities.

Associations exist between setting and group 2 ($\chi^2=17.018$, $\phi=.238$, $p=.002$), group 3 ($\chi^2=29.147$, $\phi=.312$, $p=.000$), and group 4 ($\chi^2=21.933$, $\phi=.270$, $p=.001$). No association exists between setting and group 1 (operating attitudes and policies).

Associations exist between housing type and group 1 ($\chi^2=13.442$, $\phi=.212$, $p=.037$), group 2 ($\chi^2=40.080$, $\phi=.366$, $p=.000$), group 3 ($\chi^2=17.517$, $\phi=.242$, $p=.008$), and group 4 ($\chi^2=14.431$, $\phi=.219$, $p=.025$).

Associations exist between government supervising agency and group 2 ($\chi^2=11.651$, $\phi=.207$, $p=.020$) and group 3 ($\chi^2=15.692$, $\phi=.240$, $p=.016$). No association exists between government supervising agency and group 1 (operating attitudes and policies) or group 4 (intergenerational interactions).

These findings may also reflect the longtime, stable ownership and management of public housing developments (owned and managed by public housing authorities) and Mitchell-Lama developments (often owned by tenants). These factors encourage implementation of tenant-related decisions and procedures to ensure success over the long term. These scores may reflect the comparatively older ages of Mitchell-Lama developments (more tenants aging in place for a longer period of time) as well as their middle- and upper-income tenant profile. The tenant profile and the cooperative structure of Mitchell-Lama developments contribute to greater tenant involvement in decisionmaking regarding the operation of the development and the institution of features in the housing environment that would respond to their own needs.

Analysis for Group 3: Safety and Convenience Features. Exhibit 9 also shows that the presence of safety and convenience indicators is associated with all four development characteristics. The higher scores among New York City (median score=10) and urban (median=9) developments reflect, in part, the greater safety and security concerns that characterize urban communities compared with those of suburban and rural communities. In the study's other findings 28 percent of urban managers said that tenants regarded the surrounding neighborhood as "unsafe or very unsafe," compared with 8 percent of both suburban and rural managers (Prosper, 2000). Scores also reflect the much greater number of convenience features (stores and amenities) available in urban areas than in suburban and rural regions as well as the greater integration and proximity of residential and commercial buildings in New York City and other urban areas of the state compared with suburban and rural areas. Integration and proximity place residents close to the conveniences necessary for daily living. In addition, sophisticated public transportation systems are available in urban areas but are extremely limited or nonexistent in rural and suburban areas, making access to conveniences more difficult for those tenants.

Analysis for Group 4: Intergenerational Interactions. As noted earlier, developments scored highest in intergenerational interactions. The research study's qualitative responses to an open-ended question about interactions among the tenant age groups (Prosper, 2000) showed that the reported interactive behaviors (both positive and negative) do not stem primarily from any particular age group but from the actions and attitudes of both nonelderly and elderly tenants. The modest associations shown in exhibit 9 between tenant interactions and the development's location ($\phi=.202$), setting ($\phi=.270$), and housing type ($\phi=.219$) suggest that these differences may stem from sociological factors rather than operating policies or age differences. The higher scores (positive interactions) for suburban/rural (median=6), rest of state (median=6), and publicly assisted (median=6) developments may reflect several factors, including (1) the greater perception of personal safety and security among suburban and rural tenant populations compared with urban tenant populations; (2) tenant populations that are much less ethnically, culturally, economically, and functionally diverse in suburban and rural areas than in urban areas; and (3) the mediating effects of smaller-sized developments and tenant populations. As both the size of a development and the diversity of its tenant population increase, the opportunity for negative tenant interactions grows, as does the complexity of the interactions and the challenges faced by the manager in addressing these situations. In addition, staff-to-tenant ratios are significantly lower in large buildings, leaving managers with fewer resources to handle tenant-relationship issues.

Associations Between Development Characteristics and Aggregate Indicators of Support

The positive responses to each of the 58 indicators of support were aggregated for all developments. Associations were measured between the aggregated scores and each of the development characteristics. The results are shown in exhibit 10.

Exhibit 10**Indicators of Support for Aging in Place, by Housing Development Characteristic**

Indicator of Support	Housing Development Characteristic				
	Number of Elderly Householders	Location	Setting	Housing Type	Government Supervising Agency
1. Manager's attitude about whether tenants should age in place in multifamily housing is positive.			X		
2. Manager says that caregiving tasks should be a part of the job for manager or other housing staff.			X	X	
3. Manager performs 1 or more of 14 caregiving tasks 12 or more times within a 3-month period.	X				
4. Ten percent or more of manager's time is spent on elderly tenants' issues/problems.					
5. Ten percent or more of manager's time is spent on nonelderly tenants' issues/problems.			X	X	X
6. Overall, the manager feels satisfied or very satisfied about his current job.					
7. Manager gets inservice training on aging issues/topics.				X	X
8. Manager attended outside training on aging issues/topics.				X	X
9. Manager's employer pays for manager's aging-related training.				X	X
10. Policy of manager's employer about helping elderly tenants is proactively positive.		X		X	X
11. Manager's office is located in the development.	X				X
12. Community room is located in the development.	X	X	X	X	X
13. Laundry facilities are available in the development.				X	
14. Space is available in the development for a services coordinator.	X			X	X
15. Space is available in the development for personal care or health-related services personnel.	X			X	
16. All languages spoken by a significant number of tenants are spoken by one or more housing staff.	X			X	

Exhibit 10 (continued)**Indicators of Support for Aging in Place, by Housing Development Characteristic**

Indicator of Support	Housing Development Characteristic				Government Supervising Agency
	Number of Elderly Householders	Location	Setting	Housing Type	
17. Manager has academic degree or certificate in gerontology, social work, human services, or other aging-related field.				X	X
18. Manager has professional certificate, license, or degree in managing or operating senior housing or a residential healthcare facility.		X	X		
19. Recreational activities are provided in the development for elderly tenants.	X	X	X	X	X
20. Social services/educational programs are provided in the development for elderly tenants.	X	X	X	X	X
21. Supportive services are provided in the development for elderly tenants.	X			X	
22. Resident services coordinator is available in the development for elderly tenants.	X		X	X	
23. Health-related services are provided in the development for elderly tenants.					
24. A dining/meals program is provided in the development for tenants.	X	X	X	X	
25. Transportation services are provided in the development for tenants.				X	
26. Recreational activities are provided in the development for nonelderly tenants.	X		X	X	X
27. Social services/educational programs are provided in the development for nonelderly tenants.	X	X	X	X	X
28. A resident services coordinator is provided in the development for nonelderly tenants.	X		X	X	
29. Supportive services are provided in the development for nonelderly tenants.	X	X	X	X	X
30. The main entrance door is locked, with buzzer entry system.	X	X	X	X	X
31. Security staff are on duty 24 hours per day.	X	X	X	X	X
32. A staff person is dedicated to monitoring access to the building.	X	X	X	X	X

Exhibit 10 (continued)

Indicators of Support for Aging in Place, by Housing Development Characteristic

Housing Development Characteristic	Government Supervising Agency	Housing Development Characteristic				Government Supervising Agency
		Number of Elderly Householders	Location	Setting	Housing Type	
33. The outside of the building is well lighted at night.			X	X		
34. Tenants perceive the development's surrounding neighborhood as safe or very safe.	X		X	X	X	
35. There are handrails in the hallways.		X		X		
36. A beauty/barber shop is located in the development.		X				
37. A convenience store is located in the development or on the property.	X	X	X	X		
38. A grocery store is located within a quarter mile of the development.	X		X	X		
39. A drug store is located within a quarter mile of the development.	X	X	X	X	X	
40. A post office is located within a quarter mile of the development.	X		X	X		
41. A bus stop is located within a quarter mile of the development.	X	X	X	X	X	
42. A bank is located within a quarter mile of the development.	X			X		
43. A shopping area or mall is located within a quarter mile of the development.	X	X	X	X		
44. A senior citizens center is located within a quarter mile of the development.	X	X	X		X	
45. A senior citizens congregational meal site is located within a quarter mile of the development.	X		X	X	X	
46. A community center with recreational activities and exercise equipment is located within a quarter mile of the development.	X	X	X		X	
47. A hospital is located within a quarter mile of the development.	X		X	X	X	
48. A health clinic is located on the property.	X	X	X			
49. There are interactions among the different tenant age groups—elderly tenants are not segregated.	X			X		

Exhibit 10 (continued)**Indicators of Support for Aging in Place, by Housing Development Characteristic**

Indicator of Support	Housing Development Characteristic				
	Number of Elderly Householders	Location	Setting	Housing Type	Government Supervising Agency
50. Manager says there are tenant issues, but they are similar among and between age groups and are not related to age.			X		
51. Nonelderly tenants are willing to help elderly tenants.	X	X	X		
52. Elderly tenants enjoy the presence of young children.		X	X		
53. Nonelderly tenants like having elderly tenants in the development.			X		
54. Young children do not tease and taunt elderly tenants.			X		X
55. Elderly tenants are not afraid of young adult and teenaged tenants.		X	X	X	X
56. Elderly tenants do not complain about the noise and activities of young children.					
57. The presence of elderly tenants does not place an undue burden on the manager or other housing staff.	X	X		X	X
58. The presence of elderly tenants does not place an undue burden on nonelderly tenants.					X

Notes: χ^2 analysis was used to measure associations between each of 58 support indicators and each of 5 development characteristics. Significant associations ($p < .05$) are reported with an X in the cells. Unfilled cells indicate that no association exists between the indicator and the development characteristic. Elderly householders are age 60 or older.

Exhibit 10 shows that 36 indicators of support are associated with a development's housing type, and 34 are related to its setting. Fewer indicators are associated with a development's number of elderly householders (29), its location (28), and its supervising government agency (27).

Among all 300 developments, the most prevalent indicators present are (1) the outside of the building is well lighted at night (89 percent of respondents gave positive answers), (2) the manager's attitude is positive that tenants should be able to age in place in multifamily housing (85 percent), (3) the manager says that the presence of elderly tenants does not place an undue burden on nonelderly tenants (85 percent), (4) the manager says that the presence of elderly tenants does not place an undue burden on the manager or housing staff (82 percent), and (5) a grocery store is located within a quarter mile of the development (80 percent).

Conclusions and Recommendations

Numerous elements contribute to creating an accommodating housing environment capable of successfully supporting aging in place. This study measured the presence of 58 indicators of support in subsidized multifamily housing. Overall, the 300 developments in the study scored below 40 percent (median score = 23 indicators present out of a maximum of 58).

A major purpose of this study was to identify differences in levels of support that could be associated with five selected characteristics of multifamily housing developments: number of elderly householders, location (New York City or rest of state), setting (urban, suburban, or rural), housing type (public, publicly assisted, or Mitchell-Lama housing), and government supervising agency (HUD, RD, or DHCR). Regression analysis showed that these five characteristics explain only 11 percent of the variance in total support. Further analysis showed that, among the five characteristics, the number of elderly householders in a development ($\chi^2=37.506$, $\phi=.357$, $p=.004$) and the development's setting ($\chi^2=18.634$, $\phi=.249$, $p=.005$) have the strongest associations with total support score. The development's housing type ($\chi^2=13.751$, $\phi=.214$, $p=.033$) and location ($\chi^2=8.830$, $\phi=.172$, $p=.032$) have smaller associations. No association was found between a development's supervising government agency and its total support score.

The wide range of total scores among all developments (indicators present range from 1 to 46) suggest that it may be possible to increase support levels across developments. However, the wide range, together with the regression result, underscores the need for further research to identify additional variables that have an impact on the presence of indicators of support for elderly people in multifamily developments.

This study included 58 indicators that could be measured in a mail survey. Other critical elements that have an impact on a living environment's capacity to support aging in place could not be adequately measured in a mail-survey study. These included, for example, the development's physical layout, accessibility and universal design features, relationships between both elderly tenants and housing staff and elderly tenants' family members and other informal caregivers, level of tenants' involvement in operational aspects of the development, the richness of the services network in the development's surrounding community, and tenants' perceived control over and satisfaction with their living environment. Private-pay multifamily developments were not included in this research project because of the unavailability of lists from which to draw a sample.

This study provides evidence of the extent to which subsidized multifamily residences are accommodating a growing population of elderly residents, the greatest proportion of which remain living there until they die or incur severe impairment. The country's increasing elderly population, the strong preference of older people to remain living where they are, and the continuing course of public policies to substitute community-based services for institutional care will combine to increase the number of elderly tenants aging in multifamily housing in the coming years. The characteristics of the living environment in this housing segment will determine whether aging in place is an appropriate or a perilous choice for these tenants. Thus far, the level of attention to creating accommodating, supportive living environments for elderly people in single-family homes and in planned senior housing has not been extended to multifamily housing.

The findings of this study suggest several recommendations. Housing, aging, and health policymakers should (1) formally acknowledge multifamily housing as a third major retirement housing alternative of older people, (2) recognize the cost and service-delivery efficiencies inherent in addressing the needs of congregated groups of older people in

these developments, (3) jointly acknowledge and support the role that housing managers and other housing staff play in the long-term care delivery system, and (4) collaborate in making the multifamily living environment one that supports successful aging in place. The benefits of such an approach will accrue to the tenants (increased well-being), the housing owners (better upkeep and reduced deterioration of the physical housing stock), the site managers (reduced job stress, burnout, and turnover), and the long-term care system (a cost-effective alternative for the burgeoning elderly population).

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Notes

1. Types of multifamily housing:

Public housing: Housing built for very low-income families under the Public Housing Development Program, established by the U.S. Housing Act of 1937 and supervised by the U.S. Department of Housing and Urban Development (HUD) or built for low-income families under the New York State Public Housing Law of 1939 and supervised by the New York State Division of Housing and Community Renewal (DHCR).

Publicly assisted housing: Housing built, rehabilitated, or operated with public funding other than the Mitchell-Lama/Limited Dividend Programs, the federal public housing program, or the state public housing program. Financing is through a large variety of federal and state funding programs, supervision is by the government agency that administers the financing program, and tenant eligibility ranges from very low-income through middle-income households.

Mitchell-Lama housing: Housing built for moderate- and middle-income families under article 2 of the New York State Private Housing Finance Law or under article 4 of the same law (Limited Dividend Middle-Income Development Program), with current supervision by either HUD or DHCR.

2. Traditional management tasks are those such as rent collection, tenant selection, personnel duties, property maintenance, paperwork, meetings, and budgeting. Nontraditional management tasks are those such as arranging tenants' services, counseling, personally providing transportation, providing companionship, intervening with family issues, intervening in crises, advocating for tenants, helping tenants with daily-living tasks, supervising behavior of teenagers or children, handling crime/drug problems, and supervising recreational activities.
3. Respondents reported on their personally performing each of 14 caregiving tasks for elderly tenants: linked to community services or programs, provided information and referral about services, advocated with other organizations, helped fill out forms for assistance programs, provided companionship or extra listening time, helped with

family relationships or problems, provided escort help outside the development, transported to shopping or other places, helped do shopping, helped do laundry, helped do homemaking or housekeeping chores, helped a confused elderly tenant find his way around inside or outside the building, helped with dressing or grooming, helped with other instrumental activities of daily living.

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