Future Directions for Community-based Long-term Care Research

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H THE AGING OF THE POSTWAR BABY BOOMERS there will be a very significant increase in the proportion of persons aged 65 and older at the start of the twentyfirst century. Even if there are no further declines in mortality rates, the population aged over 64 will double between 2010 and 2019, and nearly double again in the period from 2020 to 2029 (Butler 1983). The burden on the working population (as measured by the ratio of persons aged over 64 to the population aged 20 to 64) will increase from 195 persons aged over 64 for every 1,000 persons aged 20 to 64 in 1980 to 378 persons-an increase of 94 percent. Understandably, the effects of an increasing population of persons aged over 64 dependent on the Social Security system is the focus of much attention. It remains unclear, however, how the health care and human service systems will be affected. If the present trend of medical advancement continues, then it is possible to begin thinking about a human society relatively free of disease. Another forecast is that humans will experience a longer period free of disabilities but the life span will remain unchanged, thus creating a "compression of morbidity" at the older ages (Fries 1983). Alternatively, there is speculation that the prevalence of chronic disease and disability will grow as life expectancy increases (Rice and Feldman 1983).

The fact that people are living longer-whether free of disabilities or infirm-argues for providing a range of support services for the

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very old. The gerontology literature discusses at length the debate over community-based versus institutional care, with much support going for community-based care (U.S. Congress 1980; Kane and Kane 1980; Weissert 1981; Weissert, Wan, and Livieratos 1980; Pegels 1980; Hicks et al. 1981). Health service professionals and practitioners argue that community-based care improves mental and physical wellbeing, reduces unnecessary use of hospitals and nursing homes, and saves federal dollars. Much of the continuing research in support of long-term care alternatives is thus in the direction of assessing longterm care needs and appropriate community-based services (Daniels 1983; Lowy and Helphand 1975; Rathbone-McCuan and Levenson 1975; Challis and Davies 1981; Markovitz 1971; Golant 1976; Wiseman 1978), and describing ideal community environments (Murphy 1979; Sclar and Lind 1976; Golant 1972; Lawton 1976; Brody 1978). (See Lowe 1986 for a more complete review of this literature.) While such studies identify both the required support services for the elderly and the inadequacy of existing community-based service levels compared to their needs and demands, the question of how to bridge this gap between community-based care requirements and the supply of service supports still remains a problem.

Implicit in most of this type of research is the notion that communities strive with equal effort to meet the demands of their elderly subpopulation. It is accepted that the services are never adequately available, but explanations as to why are rarely forthcoming nor are comparisons of service environments given. In addition, the community is often treated as a location or setting, albeit an important one, within which the care occurs. Typically, researchers ask whether the ideal community environment is heterogeneous or homogeneous, or, more directly, the elderly are asked to reveal those neighborhood qualities most important to them. Such descriptions of communities do not identify which community types are more likely to support service-dependent elderly populations most comfortably, however.

Basically missing from the gerontology literature is a comprehensive analysis of the community factors affecting the supply or provision of community-based services. Demand or need characteristics clearly affect the provision of services when public funds are targeted to local areas on the basis of their demographic characteristics or services are paid through a third party, thereby increasing an individual's ability to pay. But the argument being made here is that community factors besides residential demand must be explored. What differentiates the service-rich communities from the service-poor ones? In other words, communities must be reconceptualized as service environments distinguished by service delivery levels and provision capabilities in analyzing service provision problems. For example, the developing literature on women's environmental needs emphasizes a neighborhood's function in the delivery of essential urban services to residents in various stages of the life cycle. Wekerle (1985, 82) identifies a "locally oriented population, defined largely by gender, for whom distance is not elastic: the elderly, single parents, and working women. For them the neighborhood serves a critical function as a place for the delivery of essential services." Furthermore, Regnier (1976) points out that since neighborhoods are "service systems," plans to alter or preserve areas of a city must be sensitive to the needs and preferences of elderly users. But while these authors and others use the idea of service environment, their focus still remains centered around user needs.

The alternative direction proposed here for community-based longterm care research stems from the following research areas of urban public services expenditures: (1) fiscal determinants literature in public finance, (2) political science literature on community decision making, (3) voluntary or nonprofit-sector literature on social welfare and community services.

Fiscal-determinants models explain local government expenditures on urban public services in relation to city wealth (or capacity to finance services) (Bahl 1969). A city's capacity to finance services is characterized by a variety of factors—ranging from land use mix to age of population—all of which affect revenue levels and thus the ability to produce or provide services.

The political science literature in community decision making expands on these local government expenditure models by including political characteristics affecting the local government allocation process. Local government decisions on levels and distribution of service outputs are modeled in terms of political power of interest groups, key leadership roles, decision making or power structure (number of participants and their overlap across issues), and government structure (Clark and Ferguson 1983; Magill 1979; Lineberry 1977).

As yet, only the characteristics affecting local government expenditures have been described. A realistic model of local service provision must also consider factors affecting voluntary or nonprofit-sector service provision. The elderly, in particular, benefit from the nonprofit sector because a large fraction of their services are provided through nonprofit service organizations. The role of the voluntary sector in local service provision, though, has been largely neglected in the literature with the exception of Lincoln (1977), Hochman and Rodgers (1973), and particularly Wolch and Geiger (1983). Their research provides an exploratory analysis of questions concerning the distribution of voluntary activity within metropolitan regions and the determinants of voluntary service provision levels for social welfare and community services. Drawing upon the literature on the voluntary sector, Wolch and Geiger present a list of plausible factors affecting the intraurban distribution of voluntary resources: public choice, community income, social needs, urban structure and ecology, industrial structure, political structure, donation potential, and free-rider behavior. Theoretically, most (but not all) of these characteristics should have the same qualitative effect on the provision of public and private services. There is no reason, however, to expect the effects to be quantitatively similar.

Community-based Long-term Care Supply Model

The proposed supply-oriented model of community-based long-term care, as shown in figure 1, includes the following factors: (1) population service needs and preferences, (2) local wealth or capacity to finance, (3) urban ecology and population change, (4) political participation and interest group activity, (5) political attitudes, (6) political structure, (7) spatial effects, and (8) urban land use. The research focus is on understanding local service variations by analyzing factors affecting the funding for elderly services within a locality from the possible income sources.

In examining income sources, it is important empirically to distinguish between income source and providing agency. Even though nonprofit agencies provide much of the community-based services, their funding source is mixed in most cases. Senior centers, for example, typically receive funds from a charitable organization such as United Way and federally from Older Americans Act Title III (especially when providing home-delivered meals). To the extent that the explanatory factors interact differently with each income source, it is crucial that the total revenue of cities be partitioned into the three sources.

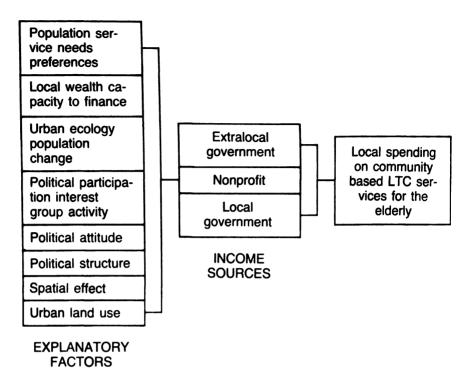


FIG. 1. Community-based long-term care supply model

An Example: The Los Angeles Metropolitan Area

Service-level determinants were explored using 1980 data for the 80 cities making up the metropolitan area of Los Angeles (Lowe 1988). Three separate supply models, representing each income source from figure 1, were analyzed using multivariate analysis. The dependent variable for each supply model reflected the dollar amount spent from that particular income source in each city on the following services: home-delivered meals, information and referral, transportation and escort, telephone reassurance, home health care, case management, adult day care services. There are other social services considered necessary to keep "at risk" elderly independent. These particular services were used because for the time period the data were collected most of them were funded under the Older Americans Act Title III. Table 1 specifies the independent measures for each of the explanatory factors and table 2 displays final regression results for the three expenditure models.

Factor	Variable Name	
Social needs		
% poor elderly population	POORELD	
% elderly population	ELDPOPN	
Ratio persons 65 + yrs. to 100 persons 17-64 yrs.	DPNRATIO	
Wealth or capacity to finance		
Median household income	MEDHHINC	
% households \$7,499–35,000	MIDLINC	
Assessed land value per capita	VALUCAP	
Sales and use tax revenue per capita	SALESTX	
Nonprofit source spending	L _{np}	
Local government source spending	L _{local}	
Title III source spending	L _{ent}	
Urban ecology and population change	ciit	
Incorporated city age	CITYAGE	
% housing built after 1969	AFT69HSG	
Density	DENSITY	
Political participation & interest group activity		
% black population	BLACK	
% population >4 yrs. speak language besides		
English at home	FOREIGN	
% female civilian labor force	FMCLFPCT	
% voted on fiscal limitations	VOTER13	
% voted on death penalty	VOTER7	
% voted on 1980 president election	VOTEPRES	
% voted on 1978 California gubernatorial election	VOTEGOVN	
Political attitudes		
% "yes" votes fiscal limitations	YES13	
% "yes" votes death penalty	YES7	
% democratic vote for governor	GOVRNDEM	
% democratic vote for president	PRESDEM	
% nonmajor political party vote for governor	GOVRNOTH	
Political structure		
No. local government employees per capita 100	LOCGOVT	
Local form of incorporation $(1 = charter)$	CLASS	
Land use		
No. beds in licensed skilled nursing facilities per 100 persons	SNF	
% acres zoned medium density, multiple family		
housing	MFHRES	
% industrial land	INDUSTL	

TABLE 1 Definition of Independent Variables

Variable	Nonprofit ² (L _{np})		Local ³ (L _{local})		Title III (L _{ent})	
	В	Std. Error	В	Std. Error	В	Std. Error
POORELD			-0.49**	.77	0.29**	.20
ELDPOPN			0.53**	1.07		—
DPNRATIO	0.39**	.32		—		
VALUCAP	-0.97**	.27				
SALESTX			0.34**	.50		
MIDLINC			-0.11	2.14		
MEDHHINC	0.33*	.57				
DENSITY	-0.40**	.22				
AFT69HSG	0.24	.34	-0.57**	.41		
LOCGOVT			0.41**	.67		_
CLASS			-0.00	.50		_
BLACK	-0.10	.11	-0.06	.15	0.29**	.08
FOREIGN		_			0.13	.25
FMCLFPCT	0.26*	2.08		_	_	_
VOTER13			-0.76**	.73		
GOVRNDEM			-0.43**	1.12		_
GOVRNOTH	0.10	.77				
INDUSTL			0.39**	. 15	_	
MFHRES			0.45**	.35	—	
SNF	-0.12	. 10				_
L _{np}					0.20**	.07
Liocal	_	_		—	0.23**	.06
Lent	0.08	. 10	0.06	.21		
constant	-8.03		17.84		-1.7	
adjusted R ²	.58		.70		.44	
N	42		31		80	

TABLE 2 Final Regression Results¹ Spending per Capita

ns = not significant at p < .1- = not included in model

* = significant at $p \leq .1$

** = significant at $p \le .05$ ¹ Log-log form regression models; standardized regression coefficients. ² Sample contained cities in which at least 50 percent of its funding from nonprofit sources.

Sample contained cities in which at least 50 percent of its funding from local government.

In the case of metropolitan Los Angeles, Title III funds represented a minor fraction of the total resources for the elderly. The other two income sources, therefore, essentially determined the richness of a city's elderly service environment. Rather than receiving an even distribution of funds from both sources, however, cities generally relied on either nonprofit or local government sectors. The sample of cities used in the nonprofit and local government expenditure models was, therefore, partitioned into two groups depending on a city's spending focus, i.e., whether it used over 50 percent of either income source.

The analysis is explained in greater depth elsewhere (see Lowe 1988). Briefly, though, the results in table 2 indicate that:

1. As specified by federal guidelines, elderly need is a determining factor of Title III funds in cities. Local government and nonprofit expenditures per capita had a positive effect on Title III expenditures per capita. This is most likely due to the required matching by contracting agencies.

2. Nonprofit spending is higher in less densely populated cities with higher socioeconomic status residents. The supply of local nonprofit-sector services decreases as local revenue increases.

3. High-revenue base communities used local public resources to finance elderly services. Older, industrialized communities with larger local governments also tended to rely on local public resources in financing elderly services.

The Theoretical Framework

The theoretical framework underlying the empirical analysis of Los Angeles is proposed for the community-based long-term care supply model. The following section discusses each explanatory factor and its hypothesized effect on the direction of spending in localities on community-based long-term care services for the elderly.

Population Service Need and Preferences. Social need is commonly treated as a sufficient motivator for local government expenditures. For instance, empirical findings show that the prevalence of large numbers of lower-income families results in higher per capita expenditures on municipal services and welfare (Masotti and Bowen 1971; Bahl 1969). Social need may also elicit a provider response from the voluntary sector as well whose general purpose is to alleviate social welfare disparities (Wolch and Geiger 1983).

Federal programs whose objectives are also to reduce social welfare disparities typically specify guidelines in order that geographic areas of high need will be targeted. Funding for local Title III programs is based on social need characteristics (as measured by poor elderly, minority elderly, percentage of elderly) of the planning and service area (PSA) of an "area agency on aging" (AAA). Therefore, funds under this program should be greater in areas with higher proportions of poor elderly.

Service preferences of the nonpoor or dependent population in a city, however, may generate demands for service output mix which are inconsistent with elderly service requirements, preventing cities from meeting those needs. Upper-class persons are generally more conservative than the population in general on issues of integration, public welfare, and governmental involvement in social welfare (Verba and Nie 1972). In addition, surveys of middle-class citizens show that they generally prefer less government spending, while the poor and blacks prefer more (Clark and Ferguson 1983; Lineberry and Fowler 1967).

On the basis of citizen surveys analyzed over time, Clark and Ferguson (1983, 179) summarize their major findings on the middle class (or nonpoor as they define it) with the following generalizations:

1. The nonpoor prefer lower expenditures and taxes for government at all levels (federal, state, and local). Opposition to social welfare activities is especially strong.

2. The nonpoor have preferred lower taxes for many years, but this preference grew stronger in the mid-1970s.

3. In general, the more affluent the citizen, the less government spending he [or she] prefers, especially for poor-oriented services. Some studies suggest, however, that the most affluent are less opposed to spending than middle-income persons.

These preferences may then be expressed through voting, which may influence as well the direction of local government expenditures. According to Downs' median-preference model (for a two-party system), political parties formulate platforms that take positions on public policies which closely approximate the position of the median voter in order to maximize votes (Hoffman 1976). This suggests that policies actually pursued by the party in power will be very close to that preferred by the "average" voter.

The public sector, however, is not a monopoly provider of communitybased services. Those persons demanding higher levels of services can exit to the voluntary or private sector (Magill 1979; Weisbrod 1977; Bahl 1969). With those options available, the necessity for local public response is reduced.

The strength of the voluntary sector may also have an impact on the ability of an "area agency on aging" adequately to target areas in need. As primary providers of services funded by Title III, the prevalence of nonprofit organizations in a jurisdiction should increase the likelihood that one of the organizations in that particular city would obtain an AAA contract.

Local Wealth or Capacity to Finance. Local wealth or a city's capacity to finance services also determines the levels of expenditures on community-based long-term care within a city. A survey of the effects of increased mean family income on urban public services is summarized by Inman (1979). The survey shows that, in general, current and capital expenditures increase with income, with the rise financed almost entirely from increased taxes. Inman then reports his own findings, which further suggests a unitary elasticity of total taxes (including property, income, sales) with respect to income. Therefore, a higher local revenue base allows a greater capacity to finance services (Bahl 1969).

Ironically, though, a city with high service-need residents can also be crippled by this same population in its ability to meet service needs. A city's elderly population, for instance, reduces property tax and business revenues which comprise the local resource base. First, the elderly in general are less mobile than younger age groups (Golant 1979; Wiseman 1979). As homeowners, then, the elderly, on average, generate lower rates of turnover, which in states such as California reduces the amount of property tax received by the city (pursuant to Proposition 13). Second, compared to nonelderly at the same income levels, the elderly spend less, with the very oldest of the old having the lowest average propensities to consume (Danzinger et al. 1982– 1983). Not surprisingly, retail businesses are then more reluctant to locate in areas of low consumer spending, thus reducing such financial benefits to local government as sales and business taxes from the private for-profit sector.

Both the local and voluntary sectors are positively affected by wealth in a community both in terms of an individual's ability to pay for services and the potential for giving from businesses and individuals. Wealthier residents have an increased ability to pay for services either from private insurance or, in most cases, out of their own pockets. At the other extreme, though, very poor elderly residents also have an increased ability to pay through Medicaid waivers for homecare and community-based services.

Although there is a paucity of literature on philanthropy, income is typically identified as a determinant of voluntary sector size at the national level (Feldstein 1974). Controlling for population characteristics, donations increase with income, with elasticities estimated at around unity. With respect to firm donations, larger firms and firms in the manufacturing sector appear to dominate the corporate-giving arena (Wolch and Geiger 1985). If firms contribute to local causes, the voluntary sector in the cities in which these firms are located will experience higher levels of donations.

Urban Ecology and Population Change. The urban and demographic characteristics of a city may summarize many processes of growth and change affecting the mix of service demands of a population and a city's ability to meet those demands. For instance, older and more stable cities are likely to have established economic bases, which in turn increase the likelihood that other industries will be attracted to the area. The development of organizational systems, support networks, and political bases—factors important to increasing voluntary sector resources—are also influenced by the stability and age of a city (Wolch and Geiger 1983; Turk 1977; Gilbert and Specht 1977; Verba and Nie 1972; Alford and Lee 1968).

Instability in terms of population migration may signify a change in the local economy. An immigration may signify an expanding local economy and greater employment opportunities. Such conditions would create more revenue and, therefore, an increased capacity for local government spending. Since those conditions would most likely attract younger age groups, however, local government spending may be oriented toward services for a younger generation such as education, recreation, or child care services. In general, an unstable or changing population may make it difficult for a local government to assess population needs and to gain political support for social programs. As a result, a local government may take little or no action toward implementing any program benefiting a service-dependent population.

While migration is more common among younger cohorts, the elderly instead tend to age in place, resulting in older persons' spending longer durations in a given city (Golant 1979; Wiseman 1979). An elderly-dominated age profile in a city benefits the voluntary sector because older residents donate and participate more in communal activities than younger residents (Wolch and Geiger 1983; Verba and Nie 1972). Firms also having a long presence in a city are more likely to take a greater interest in the city's social and cultural life, and may, therefore, donate to nonprofit organizations involved in these causes.

The effects of density on the number of voluntary organizations is ambiguous. If density is associated with "anomie," then fewer organizations and lack of participation in social life will result. Higher densities are also linked to greater urbanism, however, which precipitates more developed social networks and organizations (Wolch and Geiger 1983).

Political Participation and Interest Group Activity. The presence of advocacy groups and community activism (often reflected in voter turnout) has long been considered an important factor in local community decision making. Local government expenditures in particular areas have often been in response to pressures by these groups (Magill 1979; Turk 1970; Verba and Nie 1972; Clark 1968). High levels of interestgroup activity may also result in more or larger nonprofit organizations, because advocacy groups often organize their activities under the auspices of the nonprofit sector (Smith 1972). Participation in these organizations is generally viewed as vital in maintaining a democratic society, by "facilitating a pluralism of power bases and the participation of a variety of individuals in the political process" (Smith 1972, 2). Therefore, voluntary organizations can be in the forefront of social change and innovation, as well as serving to support traditional values.

The presence of diverse interest groups may result, though, in competition for local and voluntary sector resources and in conflicts that could immobilize local government decision making (Alford and Lee 1968). Or, in an effort to satisfy all groups, local policies for social programs may target a very broadly defined service-dependent population. For example, programs designed for the poor commonly include the elderly or disabled populations as well. On the other hand, less vocal or controversial service-dependent populations like the elderly who ordinarily would not receive separate recognition could benefit. Thus, smaller service-dependent populations may "free-ride" off the success in advocating for a larger service-dependent population. The elderly are becoming a topic of national interest, however, and groups concerned solely with their well-being are increasingly in competition for a separate share of public and voluntary resources.

Political Attitudes. In addition to directly expressing social preferences, the outcomes of voting could be indicative of local public attitudes toward health, welfare, and other public policies which are not directly voted upon. Voting outcomes in support of policy or fiscal issues related to improving social conditions could also extend to community support for nonprofit organizations whose goals are usually in those same directions. Alternatively, voluntary groups could be formed precisely because sectors of the local population are not in accord with the median voter (Weisbrod 1977).

A survey of political party attitudes finds that Republicans view the poor as responsible for their own improvement (Verba and Nie 1972). Democrats, on the other hand, appear more willing to alleviate social welfare disparities. Clark and Ferguson (1983) observe that populations are increasingly differentiated by another political attitude differing from this Republican/Democrat dichotomy—the so-called "new fiscal populist." Fiscally conservative and socially liberal voters, who became prominent during the 1970s, spiritually support social programs but remain conservative about local government spending. They instead favor a position for which services are provided by the voluntary or profit sectors.

Political Structure. Political or local government structure (defined as form of government, decision-making structure, size and diversity of government) is generally considered important to policy outputs. (Typically, form of government is characterized as either reformed or unreformed. Reformed cities are portrayed as having council-manager governments, nonpartisan and at-large elections. Unreformed cities are headed by mayor-council form of government, partisan and ward elections.) The implication, though, for service output in reformed cities is unclear. On the one hand, one would expect high levels of services, especially social services, because of a "middle-class ethos" present in reform cities (Wilson and Banfield 1964). The middle class represents public-regarding virtues as opposed to private-regarding values of "ethnic politics of machines and bosses." Empirically, Hoffman (1976) finds that reformed cities are more likely to "overproduce" welfare services than unreformed ones (see also Sherbenou 1961 and Clark 1968). On the other hand, while reducing machine politics, reformed governments are also less responsive, especially to poor and minority urban residents (Clark and Ferguson 1983; Hoffman 1976). This appears consistent with Lineberry and Fowler's (1967) data on 200 communities indicating that reformed cities (with a councilmanager, nonpartisan and at-large elections) spend and tax less than unreformed cities, with the exception of expenditures in partisan and nonpartisan cities.

Local government spending may also be determined by other aspects of political structure. For instance, Turk (1977, 55) views local governments "as an enterprise or set of enterprises that provides services to and acquires support from various organizations." The formation of linkages and ties with these organizations are more likely to occur with larger-scale governments. They are capable of having more departments, thus allowing for more frequent and diverse contact with organizations having common interests (Turk 1977). Local governments are then much more aware and familiar with the problems and needs of certain nonprofit organizations resulting in local government aid (grants, contracts). Lastly, local governments that are in control over their own municipal and legislative affairs are more likely to be flexible and more readily influenced by pressure groups (Wolch and Geiger 1983).

Spatial Effects. Decisions on service levels may be influenced by the level of services being provided by adjacent communities. One hypothesized influence is the "free-rider" effect. The outcome is somewhat analogous to that described by the urban-suburban exploitation hypothesis (Neenan 1973). According to this view, nonresidents utilize services without reimbursing the host city for their share. This is often the case when suburbanites commute to workplaces in the central city. They utilize existing services without paying their share of the services. The services are paid through taxes collected in place of residence. The nonresidents are in effect free-riding off the host city while their own community benefits (since they still must pay taxes there). Communities near jurisdictions rich in elderly services which decide not to provide needed services are also free-riding. They are avoiding fiscal responsibility for the services utilized by their residents. Concern for the "free-rider" effect may also result in cities' providing similar but lower levels of services. That is, by not under- or oversupplying services in relation to neighboring communities, free-riding will be minimized. Consequently, local public spending on elderly services may not be fully meeting resident needs or demands.

Urban Land Use. On an even broader scale, spatial organization of a community affects expenditure on services in both the voluntary and public sectors. First, communities with generous allocations of land zoned for board and care facilities or other institutional longterm care facilities may simultaneously decrease a community's need for community-based services. Second, the local financial base for services depends on the mix of land uses. Communities prohibiting or severely restricting high-density residential developments preserve the taxable value of land while limiting per capita expenditures. Otherwise, communities find that the expected demand for services increases at a greater rate than the land's taxable value (Shlay and Rossi 1981). By restricting high-density residential land use, communities also effectively limit the number of service-dependent residents whose presence otherwise diminishes the tax base.

On the other hand, commercial or industrial land uses, although physically unappealing, produce alternative sources of local revenue (e.g., sales tax, business fees, property tax). And finally, empirical evidence has shown that participation levels and philanthropic resources are higher in less dense and smaller-sized cities (Wolch and Geiger 1983; Verba and Nie 1972).

Summary and Future Directions for Research

The theoretical explanations for policy outputs cover a broad range. With such a host of factors, it is not always easy to predict the actual outcome for elderly service expenditures.

The elderly as a service-dependent population differ from other service-dependent populations, making it difficult to predict public reaction to their needs. Aging is a fact of life, and so everyone is affected regardless of income or race. On the one hand, we may see society being more sympathetic to any of the adversities associated with aging requiring public aid. In addition, the programs and policies benefiting the elderly will sooner or later be enjoyed by everyone. Society, on the other hand, is not generally so farsighted. And those elderly who are able to acquire services through the private sector may not be so sympathetic toward their less fortunate counterparts.

What is very much needed is empirically based research which is distinct from the existing literature on the following dimensions. First, previous long-term care research focuses on the demand or need characteristics of the elderly, and urban services research does not extend to elderly services. The proposal here is to use the supplyoriented urban services research models to investigate variations in elderly service levels in different communities. Theoretically, communities are expected to differ in their supply of elderly services, but in accordance with residents' demands. Metropolitan differentiation as developed by Charles Tiebout argues that individuals (or family units) select residential jurisdictions which provide an optimal amount of urban public services. Municipalities should, therefore, be characterized by residents with certain preferred services and corresponding taxes (Clark 1973). In reality, though, constraints exist preventing individuals, in this case the elderly, from moving to utility-maximizing locations. Thus, we observe cities where there are gaps between service supply and demand. Expenditure data from the Los Angeles metropolitan area were used in analyzing supply variations between cities, but further empirical analysis with data from other metropolitan areas is required as well.

Second, implicit in past studies is the assumption that increased federal financial support will raise levels of service to meet the needs of the elderly or, at the very least, that communities will strive with equal effort to meet the perceived demands of their elderly population. While more services could be financed with federal dollars, it is clear from the case of Los Angeles that other sources of financial support are important in affecting the availability of services, and that community characteristics in part determine the ability of localities to attract those resources. Therefore, more studies are required that analyze the relations between community characteristics and funding sources, especially the nonprofit sector. Furthermore, even though private-sector services were not included in the Los Angeles case, the supply of these services may also be affected by community characteristics. The interaction of these services with nonprivate-sector services should be explored in the future.

In summary, to develop a more effective long-term care system, cities must be reconceptualized as service environments distinguished by service delivery levels and provision capabilities. Research focused in this manner would then assist in policy making designed to improve the match between communities and their future elderly residents.

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