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Supply and Segregation of Nursing Home Beds in Chicago Communities

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Supply and Segregation of Nursing Home Beds in Chicago Communities

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ABSTRACT

Objective. *Previous research suggests that a shortage of nursing home beds in Latino communities and segregation within facilities in urban settings may contribute to low utilization patterns that both Latino and African American elders exhibit. In order to explore structural barriers to nursing home care for African American and Latino families, this study examines the supply and ethnoracial composition of nursing homes in Chicago communities.*

Design. *With data from the 1990 US Census of Population and Illinois' 1994 Long-Term Care Facility Survey, regression was used to determine if Latino nursing home residents in Chicago follow neighborhood residential patterns in the same way that African American nursing home residents do. Next the availability of nursing home beds by ethnoracial community is examined using analysis of variance. Finally, we present correlations between the racial/ethnic composition of Chicago's facilities, community demographics and facility characteristics that have been associated with quality outcomes.*

Results. *Both African American and Latino nursing home residents follow residential housing patterns, tending to reside in facilities located in their own communities. Latino communities have the fewest beds. However, Latinos appear to be more mobile in their utilization of nursing facilities in other communities than either African Americans or whites and tend to reside in smaller homes with fewer Medicaid recipients.*

Conclusion. *Health policy makers must actively address racial and ethnic differences in access to long-term care or risk reinforcing the effects of poverty and segregation. In order to ensure that Latino elders living alone are not going without needed care city leaders must promote a range of culturally sensitive alternatives to nursing home care within Latino communities while promoting geographic mobility for African Americans.*

Keywords: Long-term care, Latino, African–American, disabled persons, poverty areas

INTRODUCTION

One of the greatest challenges of the coming century will be to ensure equitable access to long-term care for growing numbers of non-white elderly and other persons

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with disabilities. In the US, where urban populations are both aging and becoming more ethnically diverse, 87% of elderly persons are white, but this percentage is expected to decline to 67% by 2050.[1] At that time, 10% of the elderly are expected to be African American and 16% Latino. Both groups have exhibited higher rates of disability and chronic illness than whites but have utilized nursing homes far less, Latino families having the lowest rates of utilization.[2] Whether families of color tend to rely on a combination of formal and informal care in the home because of cultural differences or because they have inadequate access to quality nursing home beds has never been firmly established. It has been suggested that Latino communities, even those in the inner city, may actually attract fewer long-term care facilities[3,4] raising a structural barrier to nursing home admission for Latinos. This study explores the question by examining the distribution of nursing homes among African American, Latino and white communities in Chicago.

Health and disability indicators would suggest higher, rather than lower, need for nursing home care among families of color. African Americans and Latinos have a higher prevalence of chronic disease than whites. Specifically, African American men and women, ages 51–61, are significantly more likely to report hypertension and diabetes than whites, and African American women report higher rates of heart condition and arthritis. Latinas are more likely than white women to report hypertension and diabetes and Latino men are more likely than white men to report a heart condition.[5] In addition, functional ability due to chronic illness is lower for African American and Latino elderly than white elderly. Among those aged 65 and over who need assistance with everyday activities, 17% are white, 25% are African American and 25% are Latino,[1] although age and gender are factors in rates of functional limitation among Latinos and whites.[6] Hazuda and Espino[7] report similar rates among elderly Latino males and white men, while elderly Latinas report higher rates of functional limitation than elderly white women.

Yet whites are most likely to utilize a nursing facility when chronic illness or disability makes it difficult to perform activities of daily living.[8] These differences become more exaggerated with age. In 1990, 26% of whites, 17% of blacks and 10% of Latinos over 85 lived in nursing homes.[2]

Scholars continue to debate whether variation in the utilization of nursing home beds is the result of culturally dissimilar expectations about caregiving within families or structural barriers to nursing home admission.[8,9] Definitive evidence that families of color have stronger support networks that are more willing to care for elders in the home has been elusive.[10] However, Latino elderly report distinctly different living arrangements from both blacks and whites. Only 36% of Latino elderly live alone, while approximately 45% of both black and white elderly live in single person households.[1] Elderly Latinos choose to live with extended family[11] but it is possible that this choice is exaggerated by limited access to long-term care alternatives.

Because of high poverty rates among blacks and Latinos[12] and nursing home fees that average $3,135 a month nationally,[6] financial barriers to nursing home care are likely. Latinos' lower Medicaid participation rate is an additional impediment, as Medicaid is the only form of public insurance that covers long-term care. Eighteen percent of Latinos receive Medicaid while 25% of African Americans participate.[3] Scholars have suggested that the combination of poverty and low Medicaid enrollment among Latinos may actually suppress the number of nursing home beds in Latino inner city and rural communities as providers have little incentive to locate there.[3]

Furthermore, there is evidence that nursing home residence follows segregated housing patterns,[13] which may present another structural barrier to long-term care for Latinos and African Americans. African American elderly are likely to reside in a nursing home located in a predominately African American neighborhood.[14] Whether this pattern reflects the choice of African American families for a convenient location or

is actually the result of racial steering toward maintaining segregated facilities is unknown. Wallace[15] found that Latinos tend to reside in more integrated facilities than African Americans. Not yet known is whether Latino nursing home residents are placed in facilities that are located throughout the city or are similarly restricted to homes in Latino communities.

Using Chicago neighborhoods as the basis for analysis, this study builds upon Wallace's research by exploring: 1) whether Latino communities have fewer beds than either white or African American communities because of the combination of poverty and low Medicaid participation; and 2) whether Latinos reside in nursing homes in predominately Latino, African American or white communities. In addition, we will discuss the affect of nursing home segregation by comparing facilities along measures that have been linked to quality outcomes.

Chicago is one of the 10 metropolitan areas in the US with the largest ghetto and barrio populations[12] and is, therefore, an appropriate location for such an analysis. We will show that inner city Latino communities do have fewer nursing home beds. This supply difference may not limit access to nursing home care, however, as Latinos are more likely to travel about the city for long-term care than either African Americans or whites.

METHODS

Using data from the 1990 Census of Population and Illinois' 1994 Long-Term Care Facility Survey, we first replicated Wallace's[14] regression to determine if Latino nursing home residents follow neighborhood residential patterns in the same way that African American nursing home residents do. Next we used analysis of variance to examine the availability of nursing home beds (number of beds, beds per 1,000 elderly, number of facilities) and neighborhood characteristics (disability, female, females working, over 65, elderly over 85, percent receiving public assistance) for four types of ethnoracial communities, employing Jargowsky's[12] definition of racial/ethnic predominance (66%). Correlations between the racial/ethnic composition of Chicago's facilities (percent white, black, hispanic), community demographics and facility characteristics (percent Medicaid, percent under 65, nurses/resident, facility size) are also presented.

RESULTS

Analysis of those census tracts ($n = 87$) that are predominately Latino (66% or more Latino residents) shows that the national pattern of disability reported above has a spatial dimension on the local level (see Table 1). Latino communities have higher rates of disability (12%) than white communities (7%) but less than African American (16%). At the same time, Latino communities have fewer persons reporting public assistance (18%), which would include Medicaid, than do African American communities (34%).

In general, the population of Latino communities is younger and has lower proportions of women, two indicators that would be expected to be negatively associated with nursing home bed supply. National studies have shown that disability increases with age and the percentage of females in a community tends to be negatively associated with nursing home utilization.[16] It has been postulated that the percentage of females is a proxy for the availability of informal care and, therefore, a higher percentage of women results in a lower need for nursing home care in the community.

As predicted, the number of nursing home beds per elderly varies with the racial/ethnic predominance of the community. Latino communities have the fewest beds (9/1000 elderly), less than the city mean of 43/1000 elderly; and only two of the city's 100 nursing homes are in a predominately Latino community. In Latino tracts where poverty is 40% or more ($n = 20$), there are no long-term care facilities at all. It is

TABLE 1. *Community characteristics of Chicago tracts by racial/ethnic predominance (N = 844)*

	African American $n = 321$	Latino $n = 87$	White $n = 228$	Mixed $n = 208$
Factors contributing to the need for beds				
Disabled	16%	12%	7%	10%*
Female	54%	48%	51%	50%*
Females working	40%	40%	58%	50%*
Over 65	11%	5%	16%	10%*
Elderly over 85	7%	5%	8%	8%*
Public assistance	34%	18%	4%	12%*
Poverty	39%	30%	7%	23%*
Bed supply				
Mean number of beds per tract	15	4	15	36*
Beds/1,000 elderly	46	9	29	66
Facility demographics				
Total number of facilities in tracts of this type	23	2	25	50
Percent white	30%	34%	87%	65%
Percent black	64%	41%	9%	27%
Percent Latino	2%	25%	2%	3%

* Differences between four groups significant at $p < 0.001$.
Source: 1990 US Census of Population and 1994 Illinois Long-Term Care Facility Survey.

interesting to note that half of all the city's nursing homes are located in diverse census tracts, those without a predominate racial/ethnic group, even though such tracts comprise just one quarter of the city's total.

Latino predominance within nursing home populations tends to increase with the percentage of Latinos in the community. In our replication of Wallace's regression, we found that both African American and Latino nursing home residents follow residential housing patterns, tending to reside in facilities located in their own communities. However, the fact that the amount of variance explained in the Latino regression (0.21) is half that of the variance explained in the African American regression (0.42) suggests that residential housing patterns are less influential in the placement of Latino as compared to African American nursing home residents.

Indeed, Latinos appear to be more mobile in their utilization of nursing facilities than either African Americans or whites (see Table 2). Whites and African Americans are unlikely to reside in facilities located in each other's communities but Latino nursing home residents may very well reside in either community. Likewise, Latinos are just as likely to reside in facilities that are predominately white as they are to reside in nursing homes that are predominately African American. On the other hand, blacks and whites tend to avoid facilities located in each other's communities as suggested by a nearly perfect negative correlation between the percentage of blacks in a facility and the percent of whites. Facility demographics listed in Table 1, however, show that whites may reside in facilities located in predominately African American facilities but blacks are unlikely to utilize nursing homes in predominately white communities. Blacks and whites may reside together in a facility located in Latino or mixed communities.

Analysis of facility characteristics shows that Latinos tend to reside in nursing homes that are smaller than those of African Americans, and are less likely to serve Medicaid recipients. Therefore, we would expect to find that Latino facilities have a larger ratio of nurses to residents. In general, Medicaid homes are larger and have been associated with lower staffing levels and, therefore, poorer quality outcomes.[17,18] In this analysis, however, staffing levels do not appear to vary significantly by the ethnic and racial composition of the facility.

TABLE 2. *Correlation between racial/ethnic composition of nursing facilities and facility characteristics (N = 100)*

	Latino in facility	Black in facility (%)	White in facility (%)
Community characteristics			
Latinos in tract	0.455*	− 0.234	0.136
Blacks in tract	− 0.044	0.642*	− 0.638*
Whites in tract	− 0.152	− 0.585*	0.650*
Poverty in tract	0.101	0.552*	− 0.581*
Facility characteristics			
Medicaid recipients	0.019	0.304*	− 0.322*
Residents/facility	− 0.077	0.260*	− 0.209
RNs/resident	0.061	− 0.112	0.050

$p < 0.01$.
Source: 1990 US Census of Population and 1994 Illinois Long-Term Care Facility Survey.

DISCUSSION

In the coming decades, as the elderly population becomes more ethnically diverse, equity of access to a variety of long-term care services must be carefully monitored. Policy analysts must directly examine the utilization of nursing homes and in-home services by persons of color in order to uncover any structural barriers that may impede access. If we assume that lower utilization reflects family preferences for informal care, problems of unequal distribution of services and financial obstacles to care may go unaddressed. Health policy makers must actively address racial and ethnic differences in access to long-term as well as acute care or risk reinforcing the effects of poverty and segregation on the availability of quality services to residents of African American and Latino communities.[4]

In order to ensure that Latino elders living alone are not going without needed care, city leaders must promote a range of culturally sensitive alternatives to nursing home care within Latino communities. Latino elders appear more willing to utilize in-home services if adult children are nearby to mediate.[19] This finding suggests that language may be a significant barrier to access, one that service providers can address by hiring staff from within the community and creating an environment that respects cultural values. In order to reduce financial barriers to both in-home and nursing home care, community organizations within the Latino community can disseminate information about Medicaid eligibility, including its relationship to immigration status.[2]

Providing culturally sensitive care to ethnic groups in cities can mean targeting geographic communities. For African Americans in the US such an approach can mean reinforcing boundaries of racial segregation. Compared to African Americans who appear more confined to racially segregated communities, Latinos appear able to cross neighborhood boundaries, which may afford greater access to quality nursing home care. The challenge for urban providers in the coming years will be to provide care which is sensitive to cultural preferences and geographic location without reinforcing residential segregation patterns that concentrate poverty, Medicaid eligibility and limit equal access to quality care.

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