

Health Care Use Among Undocumented Latino Immigrants

Is free health care the main reason why Latinos come to the United States? A unique look at the facts.

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ABSTRACT: Using data from a 1996/1997 survey of undocumented Latino immigrants in four sites, we examine reasons for coming to the United States, use of health care services, and participation in government programs. We find that undocumented Latinos come to this country primarily for jobs. Their ambulatory health care use is low compared with that of all Latinos and all persons nationally, and their rates of hospitalization are comparable except for hospitalization for childbirth. Almost half of married undocumented Latinos have a child who is a U.S. citizen. Excluding undocumented immigrants from receiving government-funded health care services is unlikely to reduce the level of immigration and likely to affect the well-being of children who are U.S. citizens living in immigrant households.

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ONGOING FEDERAL AND STATE POLICY DECISIONS have profound implications for the health care of undocumented immigrants living in the United States.¹ Most recently, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 and its amendments have seriously restricted federal and state benefits available to noncitizen immigrants who are lawful permanent residents. By implication, undocumented immigrants are excluded from receiving these benefits and may find it even harder to obtain services than before the legislation. Moreover, states that wish to provide benefits to undocumented immigrants must pass specific laws to do so.²

The debate surrounding welfare reform has been similar in many ways to the debate in the early 1990s over public funding of health care for undocumented immigrants. That debate appeared to peak

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in November 1994, when California voters approved Proposition 187, which would have excluded undocumented immigrants from publicly funded health care. Proponents of the measure argued that providing care to undocumented immigrants was unfairly draining state resources, thereby making it more difficult to serve other populations. In a 1993 letter to President Bill Clinton, Gov. Pete Wilson lobbied for federal legislation to “limit or eliminate ‘the giant magnet of federal incentives’ that draw foreigners into the country illegally.”³ The California Ballot Pamphlet for the 1994 election echoed this refrain, stating that “welfare, medical and educational benefits are the magnets that draw these ILLEGAL ALIENS across our borders.”⁴ Others argued with equal force against Proposition 187, suggesting that it violated essential human rights by denying needed health care. Still others noted that regardless of one’s views about the undocumented population, Proposition 187 placed U.S. citizens at risk by denying treatment to undocumented immigrants who might have communicable diseases.⁵

This debate—from before the California referendum through today—has been largely driven by political ideology. In fact, little is known about undocumented immigrants and their use of publicly funded health care services. A number of studies have estimated the costs imposed by undocumented immigrants on public finances overall.⁶ Although previous studies have found that undocumented immigrants have much less access to care than other citizens do, each of these studies has largely been limited to a single institution or locality.⁷ The purpose of this Project HOPE Hispanic Immigrant Health Care Access Survey is to increase the empirical information available to address these issues by collecting information from a scientifically designed sample of undocumented immigrants.⁸

The study focuses on four specific questions: (1) To what extent do undocumented Latinos come to the United States for the specific purpose of obtaining more or better medical care? (2) How much health care do undocumented persons use? (3) To what extent do the undocumented (or their family members) receive benefits from government health and social welfare programs? (4) Are undocumented Latino immigrants afraid to seek care because of their immigration status?

Methods

To the best of our knowledge, this study is the first health-related survey to use probability sampling and in-person interviewing to survey undocumented immigrants.⁹ The use of in-person interviewing is important with this population not only because approximately one-third of undocumented immigrants may not have tele-

phones (and thus may be excluded from a telephone survey) but also because of the need to establish trust between interviewer and respondent.

Prior studies have used other approaches to sampling undocumented immigrants, including convenience samples and snowball methodologies.¹⁰ A common approach is to survey persons served by a particular institution, using a particular type of care, or living in one locality.¹¹ Such studies have provided useful insights but generally are not representative of the characteristics or needs of the overall undocumented population even within the communities being studied. Using a probability sample allows us to study persons receiving care as well as those receiving few or no services, thereby providing a very different picture of service use and intensity.

■ **Sample selection.** To develop a more comprehensive understanding of the relevant policy issues and, at the same time, use resources efficiently, representative samples of undocumented Latino immigrants were identified in four major communities in two of the states with highest concentrations of undocumented immigrants: Houston and El Paso (Texas) and Fresno and Los Angeles (California).¹² Sites were selected to cover both the largest concentrations of undocumented immigrants in each state (Houston and Los Angeles) and to introduce diversity; El Paso was chosen for its border location and Fresno for its large agricultural sector. The decision to focus on Latinos was made for both policy and pragmatic reasons. Much of the original policy debate focused on border states and immigration from Latin American countries. Latinos are estimated to represent approximately 70 percent of all undocumented immigrants.¹³

We used 1990 census data to identify those neighborhoods likely to have concentrations of undocumented persons. Two proxy measures were used to identify such neighborhoods: Census block groups were selected for sampling if (1) at least 20 percent of Spanish-speaking households were linguistically isolated, and (2) at least 20 percent of persons were foreign-born.¹⁴ Block groups were randomly selected from those that met these criteria; then, within these block groups, housing units and one respondent per family unit were randomly selected. All neighborhoods could not be included because of the costs associated with “listing” and “screening.”¹⁵ Although we have excluded undocumented Hispanics who live in areas with relatively fewer Hispanics, we think that the access problems faced by those persons may be different from those of the study’s target population.

■ **Determining legal status.** The most challenging aspect of the survey design was determining each household member’s legal status. NuStats International conducted data collection for the sur-

vey, using carefully trained Latino interviewers fluent in Spanish. The household screener was used to enumerate all household members (and family units within the household) and to guide the interviewer through an eligibility-determination and respondent-selection process using strict criteria developed by the project's sampling statistician. Although only one person per family unit was sampled, the statistical design ensures that overall estimates (of demographic characteristics, health care use, and other parameters) are representative of the study population. Household members were defined as persons who had lived at the sampled address for a minimum of six months, to exclude transient persons—such as visitors and temporary workers—who moved back and forth across the U.S. border but who did not intend to live here permanently.¹⁶

Intensive interviewer training, including discussion of issues related to confidentiality, was used to help develop rapport between interviewers and respondents. Based on field observations, focus groups, and informal conversations conducted during the screening process, we believe that the field staff were very effective in determining legal status and eliciting cooperation. Nevertheless, we cannot exclude the possibility that some persons claimed to have a form of documentation that they did not have. Accordingly, it is likely that the survey does undercount the undocumented population, although we believe that this undercount is moderate. Overall, 7,352 households were screened, yielding 1,171 eligible respondents. Of these, 973 participated in the study, which was implemented between October 1996 and July 1997. The interview response rate was 83 percent; however, taking into account those households that we were unable to screen brings the overall response rate to 73 percent.¹⁷

Except for participation in government programs, reporting was for undocumented persons only; reporting on program participation includes all family members, some of whom may be lawful permanent residents or U.S. citizens. Estimates are presented separately for each site. Within each site, the sample was selected to be self-weighting.

■ **Estimating health service use.** Comparisons to the overall U.S. population and the total Latino population in the United States are made for some estimates using the 1994 National Health Interview Survey (NHIS). These estimates are weighted to be nationally representative of persons captured in that sampling frame (that is, the U.S. civilian, noninstitutionalized population). Thus, they could include persons in this country illegally but do not contain any information on immigration status. Our purpose in estimating rates of health care use is primarily to examine the potential burden placed on the health care system by undocumented Latino immi-

grants. Although we are not able to measure the financial impact, we provide information on the proportionate use by this group relative to other groups. We do not control for the age and sex makeup of the groups, since we consider the composition of the group itself to be one of its defining features. For example, examining the rates of childbirth only for women of childbearing age would obscure the fact that a disproportionate number of undocumented Latinas are in this group and thus would underestimate the burden of childbirth related to all undocumented Latinos. Our focus here is to examine the demands made on the health infrastructure rather than provide estimates about the probability of childbirth per se.¹⁸

Survey Findings

■ **Population characteristics.** Our results indicate that in 1996 undocumented Latino immigrants in Fresno, Los Angeles, and Houston were about evenly divided between males and females, while in El Paso females outnumbered males two to one (Exhibit 1). Approximately one-quarter of undocumented Latino immigrants in these metropolitan areas were under age eighteen, and only 1 percent were age sixty-five or older. The age distribution of the El Paso population was somewhat different than in the other sites, with

EXHIBIT 1
Sociodemographic Characteristics Of Undocumented Latino Immigrants In Four U.S. Cities, 1996–1997

Characteristic	El Paso (n=207)	Houston (n=232)	Fresno (n=256)	Los Angeles (n=277)
Age ^a				
Under 18	38.8%	24.2%	26.5%	26.7%
18–34	39.0	59.0	57.5	53.8
35–64	19.5	15.9	14.9	19.3
65 or older	2.8	1.0 ^b	1.1 ^b	0.2 ^b
Sex ^a				
Male	34.1	52.0	53.3	50.2
Female	65.9	48.1	46.7	49.8
Country of origin ^a				
Mexico	99.1	85.5	93.2	80.0
El Salvador	0.6 ^b	6.5 ^b	4.4 ^b	10.3
Nicaragua	0.0	0.3 ^b	0.0	4.0
Chile	0.0	5.1 ^b	1.3 ^b	3.2 ^b
Other	0.3 ^b	2.6 ^b	1.1 ^b	2.6 ^b
Family income ^a				
\$5,000 or less	52.5	40.6	36.5	26.8
\$5,001–\$10,000	35.6	31.6	46.1	50.6
\$10,001–\$20,000	11.7	24.3	17.1	19.3
More than \$20,000	0.3 ^b	3.5 ^b	0.3 ^b	3.3 ^b

SOURCE: Hispanic Immigrant Health Care Access Survey, Project HOPE Center for Health Affairs, 1996.

^a $p < .05$, using chi-square, reject null hypothesis that distribution of characteristics is the same across sites.

^b Standard error greater than 30 percent of estimate.

more children but fewer adults in the eighteen-to-thirty-four age group. Across the four sites almost 90 percent of undocumented Latino immigrants were born in Mexico; approximately 6 percent reported El Salvador as their country of origin, 2.5 percent were from Chile, and 1 percent were from Nicaragua. The vast majority of undocumented Latino immigrants in these cities live in poverty—80 percent had family incomes of \$10,000 or less.

■ **Reasons for immigrating.** Survey findings do not support claims that people come to the United States primarily for health care or social services (Exhibit 2). Quite to the contrary, in three of the four sites at least half of the respondents cited work as their most important reason for immigrating. The exception was El Paso, where 49 percent cited uniting with family and friends as their main reason for immigrating, followed by finding work (cited by about one-fourth of respondents).

Fewer than 1 percent of respondents cited obtaining social services as the most important reason for immigrating. While it could be argued that respondents simply chose not to reveal the true reason they immigrated, this seems unlikely in this context, given that respondents had previously acknowledged their undocumented status to the interviewer.

■ **Health care use.** Compared with other Latinos or the U.S. population as a whole, undocumented immigrants obtain fewer ambulatory physician visits; rates of hospital admission, except hospitalizations related to childbirth, were comparable between undocumented immigrants and other Latinos (Exhibit 3).¹⁹ The rate of hospitalization in Los Angeles stands out as being lower than that in the other sites. Compared with hospitalization rates for the overall U.S. Latino population and the U.S. population as a whole—between 8.5 and 9 percent—the likelihood of an admission was similar for undocumented persons.

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EXHIBIT 2
Main Reasons For Immigrating Among Undocumented Latino Adults In Four U.S. Cities, 1996–1997

Reason	El Paso	Houston	Fresno	Los Angeles
Education	20.7%	2.6% ^a	3.2% ^a	4.1% ^a
Work	26.6	56.8	62.6	56.2
Unite with family/friends	49.1	33.6	30.3	33.0
Avoid political persecution	0.0	2.0	2.1 ^a	2.4 ^a
Social services	0.0	0.0	0.4 ^a	0.6 ^a
Other	3.6 ^a	4.9 ^a	1.4 ^a	3.8 ^a

SOURCE: Hispanic Immigrant Health Care Access Survey, Project HOPE Center for Health Affairs, 1996.

NOTE: $p < .05$, using chi-square, reject null hypothesis that distribution of characteristics is the same across sites.

^a Standard error greater than 30 percent of estimate.

EXHIBIT 3 Use Of Health Care Services By Undocumented Latino Immigrants In Four U.S. Cities And All Latinos Nationwide, Over Age Fifteen, 1994 And 1996

	1996 Hispanic Immigrant Health Care Access Survey ^a				1994 National Health Interview Survey ^b	
	El Paso	Houston	Fresno	Los Angeles	All Latinos	
Percent hospitalized	11.4%	12.8% ^c	12.0%	6.8%	8.5%	8.9%
Childbirth	6.4 ^{c,d}	4.8 ^{d,e}	3.4 ^{e,f}	3.5 ^{e,f}	2.6	1.7
All other	5.0 ^d	8.3	9.2	3.3 ^{c,d,e}	6.0	7.4
Percent with physician visit	36.4 ^{c,d}	35.0 ^{c,d}	49.9 ^{c,d}	27.2 ^{c,d}	65.8	74.8
Mean number of visits for those with at least one visit	4.4 ^{c,d}	3.2 ^{c,d}	4.3 ^{c,d}	3.2 ^{c,d}	6.2	6.2

SOURCES: Hispanic Immigrant Health Care Access Survey, Project HOPE Center for Health Affairs, 1996; and U.S. Department of Health and Human Services.

^a Weighted to account for differential nonresponse rate.

^b Weighted to represent the U.S. civilian, noninstitutionalized population.

^c Different from all Latinos at the .05 level.

^d Different from total U.S. population at the .05 level.

^e Standard error is greater than 30 percent of estimate.

^f Fresno and Los Angeles combined are different from total U.S. population at the .05 level.

Hospitalizations for childbirth, however, were higher among undocumented Latinas. Data from the 1994 NHIS show that 1.7 percent of the total population and 2.6 percent of the Latino population had a childbirth-related hospitalization in 1994. Rates among the undocumented in the study sites were much higher—ranging from 3.4 percent in Fresno to 6.4 percent in El Paso. The higher rate in El Paso can be explained in part by a higher proportion of women living there—66 percent versus approximately 50 percent elsewhere.

Rates of physician visits were much lower for undocumented Latino immigrants in the study sites than for all Latinos or all persons in the United States. About 75 percent of the U.S. population and 66 percent of the Hispanic population had at least one physician visit. The proportion of undocumented immigrants with a visit ranged from 27 percent in Los Angeles to a high of 50 percent in Fresno. For those undocumented immigrants who did obtain access to ambulatory care, the intensity of service use was much lower (three to four visits per year) than that of other Latinos or the nation overall (six visits).

■ **Participation in public programs.** Study findings show that undocumented immigrants seldom use most public programs serving primarily the adult population, although this varies by site and type of program (Exhibit 4). Programs targeted toward children have higher rates of use. Except for Medicaid—where participation was asked about only for the individual respondent—estimates of program participation may include family members, some of whom could be lawful permanent residents or U.S. citizens. Thus, these estimates are of families of undocumented immigrants and cannot

EXHIBIT 4
Participation In Government Programs By Undocumented Latinos Or Their Family Members In Four U.S. Cities, 1996-1997

Program	El Paso	Houston	Fresno	Los Angeles
Medicaid	2.5% ^a	2.2% ^a	25.5% ^b	9.8% ^b
Financial public assistance				
AFDC	8.9	1.6 ^{a,b}	9.2	17.7 ^b
SSI	1.3 ^a	0.3 ^a	2.1 ^a	0.2 ^a
Social Security	2.8	1.0 ^a	3.8 ^a	0.5 ^a
Other	2.5 ^a	0.2 ^a	1.1 ^a	0.0
Nonfinancial public assistance				
Food stamps	48.0	8.6 ^b	18.0 ^b	10.5 ^b
WIC	47.0	28.2 ^b	25.4 ^b	25.0 ^b
Other	0.3 ^a	1.7 ^a	0.5 ^a	0.3 ^a
Other government services				
Public schools	66.6	40.9 ^b	50.1	49.5
Free/reduced-price lunches	66.0	38.0 ^b	46.3 ^b	45.5 ^b
Subsidized housing	8.6 ^a	2.0 ^a	3.5 ^a	1.6 ^a

SOURCE: Hispanic Immigrant Health Care Access Survey, Project HOPE Center for Health Affairs, 1996.

NOTES: All estimates, with the exception of Medicaid enrollment, are for undocumented immigrants or members of their family, who may be lawful permanent residents or U.S. citizens. Medicaid enrollment is reported for undocumented persons only. AFDC is Aid to Families with Dependent Children. SSI is Supplemental Security Income. WIC is Supplemental Nutrition Program for Women, Infants, and Children.

^a Standard error greater than 30 percent of estimate.

^b Different from El Paso at the .05 level.

be used to measure the program participation of undocumented persons alone. Undocumented persons' program eligibility varies and is described below for each program.

Medicaid. Relatively few undocumented persons were enrolled in Medicaid in 1997, although there were large differences between Texas and California. In Los Angeles about 10 percent of undocumented Latinos reported Medicaid enrollment, and in Fresno one-quarter appeared to be participating. In Texas, on the other hand, participation in Medicaid was minimal in 1997, with approximately 2 percent of undocumented Latino immigrants reporting participation in both El Paso and Houston. These differences may arise from a provision in California that provided nonemergency pregnancy-related care as a state-only funded benefit, even though Medicaid enrollment per se was not open to undocumented immigrants.²⁰

The difference in Medicaid enrollment rates between states may explain why the public movement to exclude illegal immigrants in California had more support than related efforts in Texas; clearly, California's Medi-Cal program does incur significant costs in providing services to persons without documentation.²¹ With approximately two million undocumented immigrants in California, even 10 to 15 percent of them on Medicaid would represent only 4 percent of total Medicaid eligibles statewide. Thus, although not trivial,

Medicaid costs associated with caring for undocumented Latinos in California are not a major factor in the state's escalating Medicaid costs. In Texas undocumented immigrants constitute a negligible proportion of the state's Medicaid enrollment.

Financial public assistance. None of the financial assistance programs—Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), or Social Security—were open to undocumented immigrants in 1997, although these programs may have been available to family members who were lawful permanent residents or citizens.²² Receipt of financial public assistance was accordingly low. AFDC accounted for the only nontrivial participation (approximately 9 percent of undocumented persons or their family members in El Paso and Fresno and almost twice as many in Los Angeles). AFDC participation by undocumented persons or their family members in Houston was minimal, as was receipt of benefits under SSI and Social Security in all sites.

Nonfinancial public assistance. In comparison with programs providing financial assistance, federal programs providing nonfinancial assistance had somewhat higher participation rates in both Texas and California. Undocumented immigrants are not eligible for food stamps but are fully eligible for the Supplemental Nutrition Program for Women, Infants, and Children (WIC). More than half of the undocumented Latinos or their family members in El Paso received food stamps in 1997, and almost half received WIC services. Across the other three sites these figures are lower, with 9–18 percent receiving food stamps and approximately one-quarter obtaining WIC services.

Other government services. The study also reported significant levels of services related to the public schools. A public education is available to all persons residing in the United States, irrespective of their legal status. Any child attending a school participating in the National School Lunch Program may be eligible for free or reduced-price meals at school. In 1997 about 40 percent of undocumented adults in Houston and about 50 percent in Fresno and Los Angeles had at least one child attending a public school. El Paso had the largest proportion of respondents (67 percent) with children in public schools. The vast majority of these children—about 90 percent—receive free or reduced-price lunches through their school. Very few respondents reported living in subsidized housing; this federal program is not open to undocumented immigrants.

As noted, some of the participation in government programs described here, while reported by an undocumented respondent, may refer to participation by family members, particularly children of undocumented persons who are themselves U.S. citizens. Across

“Parents’ difficulty in obtaining health care is likely to have a deleterious effect on their children’s well-being.”

sites, 42–58 percent of undocumented Latino adults have at least one child who is a U.S. citizen. This is particularly relevant with respect to attendance in public schools, but it is also relevant for AFDC or food stamps, for which children may be legally eligible because of low family income.

■ **Fear about obtaining care.** The debate over California’s Proposition 187 caused concern among public health advocates about whether undocumented immigrants might avoid seeking health care because of fear about their immigration status. The study findings show that such concern is justified. When asked if they were afraid they would not receive care because of their immigration status, 33 percent of the undocumented persons in Houston, 36 percent of those in Los Angeles, 47 percent of those in Fresno, and 50 percent of persons in El Paso responded affirmatively. And, in fact, those who expressed fear about seeking care were much more likely to report that they were unable to obtain care than were those who did not express concern.²³

Health Care As An Immigration Policy Tool

Illegal immigration raises complex economic, social, and philosophical issues that go far beyond the data considered here. Our focus is limited to the specific issue of health care as a tool in immigration policy. It has been argued that health and social services are an incentive for immigration and that if services were eliminated, fewer people would come to the United States, thereby removing the burden imposed on the health care delivery system. In promoting legislation that would deny services to undocumented immigrants, policymakers may have hoped to decrease immigration.

Our findings suggest that excluding undocumented immigrants from government-funded health care services is unlikely to affect immigration. This supports earlier studies indicating that immigrants come to the United States primarily in search of employment. In a study of illegal immigrants who applied for legal status under the 1986 Immigration Reform and Control Act, 94 percent of respondents cited economic reasons for immigration.²⁴ Similarly, Leo Chavez and colleagues found that social services did not influence Latina immigrants’ intentions to remain in the United States.²⁵ It appears likely that only substantial changes in the relative economic opportunity available on either side of the border will influence the flow of persons crossing to the United States.

We found that the level of ambulatory health care received was quite low among undocumented Latinos in the study sites. The high rate of childbirth among undocumented immigrants (and related use of hospital services) is probably related to the higher proportion of Latinas of childbearing age, the overall higher fertility rates among Latinos, and the fact that children born in the United States will become citizens. Thus, it is unlikely to decrease with changes in the availability of services. Since even current policy permits the provision of emergency services—including labor and delivery but excluding prenatal care—recent initiatives may have serious consequences not anticipated by the designers of such legislation.²⁶ By not providing prenatal care and routine or preventive services, they are unlikely to see a decrease in the number of children born but likely to see a decrease in the relative number of healthy children born instead.

GIVEN TODAY'S POLITICAL CLIMATE there is little chance that legislators will offer funding to provide health care services to the undocumented immigrant population. Also, despite the dramatic improvements in access to care for low-income persons enrolled in public programs, it would be politically unacceptable to permit undocumented immigrants to enroll in Medicaid without expanding that program to other low-income persons who are U.S. citizens.²⁷ At the same time, the reality of households with both undocumented and legal residents must be considered by those developing policies affecting immigrant households. Approximately half of undocumented Latino adults in the four study sites have at least one child who is a U.S. citizen. While children may be eligible for publicly funded services, the difficulty parents face in obtaining health care is likely to have a deleterious effect on their children's economic and social well-being. Although policymakers may have a legitimate interest in constraining the use of services by undocumented immigrants, imposing additional constraints may be counterproductive in light of the minimal level of health care being used by that population.

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NOTES

1. The term *undocumented* refers here to persons who entered the country without inspection as well as persons who violated the terms of their visas.
2. INS Fact Sheet, www.ins.usdoj.gov/hqopp/factsfin.htm, updated 31 January 1997. While PRWORA contains this stipulation, it is not clear whether the stipulation is legal or enforceable.
3. "Governor Goes Public with Fight to Reduce Services States Provide," *Fresno Bee*, 9 August 1993.
4. Ballot Pamphlets are regularly prepared by the office of the secretary of state to inform voters about the propositions at each election. They generally include an analysis of the proposition with arguments for and against it.
5. Although the courts suspended implementation of the health, education, and human services provisions of Proposition 187, the debate continues in a similar fashion. See K. Johnson, "Public Benefits and Immigration: The Intersection of Immigration Status, Ethnicity, Gender, and Class," *UCLA Law Review* 42 (1995): 1509-1575.
6. See, for example, R. Clark et al., *Fiscal Impacts of Undocumented Aliens: Selected Estimates for Seven States* (Washington: Urban Institute, 1994); U.S. General Accounting Office, *Illegal Aliens: National Net Cost Estimates Vary Widely*, Pub. no. GAO/HEHS-95-133 (Washington: GAO, 1995); GAO, *Illegal Aliens: Assessing Estimates of Financial Burden on California*, Pub. no. GAO/HEHS-95-22 (Washington: GAO, 1994); S. Norton, G. Kenney, and M. Ellwood, "Medicaid Coverage of Maternity Care for Aliens in California," *Family Planning Perspectives* 28, no. 3 (1996): 108-112; and L. Ku and B. Kessler, *The Number and Cost of Immigrants on Medicaid: National and State Estimates* (Washington: Urban Institute, 1997).
7. F. Hubbell et al., "Access to Medical Care for Documented and Undocumented Latinos in a Southern California County," *Western Journal of Medicine* 154, no. 4 (1991): 414-417; and L. Chavez et al., "Undocumented Latina Immigrants in Orange County, California: A Comparative Analysis," *International Migration Review* 31, no. 1 (1997): 88-107.
8. The decision to limit the survey to Latinos and to four geographic sites was made for both policy and operational reasons. Identifying a sample that was representative of all undocumented immigrants in the United States would have required a level of resources not available to the health services research community. Moreover, a nationally representative sample would not allow for inferences about specific communities; since there is likely to be substantial variation across geographic areas, limiting analyses to overall national estimates might be less useful for policy purposes.
9. Probability sampling is defined by each member of the group of interest having a known probability of being selected for an interview.
10. In convenience samples, the study population is made up of people who come forward and volunteer to participate. In snowball methodologies, one starts with a limited sample and augments it by asking respondents to identify others who meet the study criteria. See, for example, L. Chavez, E. Flores, and M. Lopez-Garza, "Undocumented Latin American Immigrants and U.S. Health Services: An Approach to a Political Economy of Utilization," *Medical Anthropology Quarterly* 6, no. 1 (1992): 6-26; L. Chavez, W. Cornelius, and O. Jones, "Utilization of Health Services by Mexican Immigrant Women in San Diego," *Women and Health* 11, no. 2 (1986): 3-20; L. Chavez, W. Cornelius, and O. Jones, "Mexican Immigrants and the Utilization of U.S. Health Services: The Case of San Diego," *Social Science and Medicine* 21, no. 1 (1985): 93-102; W. Cornelius, "Interviewing Undocumented Immigrants: Methodological Reflections Based on Fieldwork in Mexico and the U.S.," *International Migration Review* 16, no. 2 (1982): 378-411; and K. Siddharthan and M. Ahern, "Inpatient Utiliza-

- tion by Undocumented Immigrants without Insurance,” *Journal of Health Care for the Poor and Underserved* 7, no. 4 (1996): 355–362.
11. See, for example, K. Siddharthan and S. Alalasundaram, “Undocumented Aliens and Uncompensated Care: Whose Responsibility?” *American Journal of Public Health* 83, no. 3 (1993): 410–412; T. Chan et al., “Survey of Illegal Immigrants Seen in an Emergency Department,” *Western Journal of Medicine* 164, no. 3 (1996): 212–216; S. Asch et al., “Potential Impact of Restricting STD/HIV Care for Immigrants in Los Angeles County,” *International Journal of STDs and AIDS* 7, no. 7 (1996): 532–535; and Norton et al., “Medicaid Coverage of Maternity Care.”
 12. J. Passel, unpublished estimates (Washington: Urban Institute, 1995). Immigration and Naturalization Service (INS) estimates indicate that 54 percent of undocumented persons live in California and Texas; another 29 percent live in New York, Florida, Illinois, New Jersey, and Arizona (U.S. Department of Justice, 1997).
 13. INS, “INS Releases Updated Estimates of U.S. Illegal Population” (Press release, 7 February 1997).
 14. For a household to be counted as linguistically isolated, Spanish must be spoken in the household, and there can be no one living in the household age fourteen or older who speaks only English or who speaks English very well.
 15. “Listing” involves creating a complete enumeration of all possible dwelling units in a geographic area. Although lists of addresses are commercially available, the pretest revealed that these lists were not adequate for finding all places where the target population might live, including informal, illegal, or other hidden housing units. Thus, in-person canvassing was conducted to verify all addresses. Details about the sample design are described in C. Good, R. Jacinto, and M. Berk, “Surveying Rare Populations with Probability Sampling: The Case of Interviewing Undocumented Immigrants” (Paper presented at the American Association for Public Opinion Research Annual Conference, St. Louis, Missouri, 1998).
 16. It is likely that those whom we excluded were even less likely to use health care services than those who were here for longer periods or permanently. Family units were defined to include spouses and children under age eighteen residing in the household.
 17. The response rate varied across sites (69 percent in Fresno, 87 percent in Los Angeles, 83 percent in El Paso, and 55 percent in Houston). This rate is calculated at the household level as the number of completed interviews divided by the sum of eligible households plus a proportion of nonscreened households for whom eligibility status is unknown. The proportion of nonscreened households included in the denominator is based on the proportion of eligible households found among all screened households. We assume that the proportion of screened households that are eligible is the same as the proportion of nonscreened households that would be eligible.
 18. Chi-squares are used to compare distributions of characteristics across sites; the chi-square is used to test the null hypothesis that the distribution of a given characteristic is the same across sites. T-tests are used for comparisons across sites when examining participation in government programs and between the undocumented population and national estimates from the NHIS. Standard errors were computed using SUDAAN, which uses the Taylor series linearization method to account for the complex survey design.
 19. Only health care obtained within the United States is included in this discussion. Because El Paso is located near the Mexico/U.S. border and adjacent to a large metropolitan area (Ciudad Juarez), persons in El Paso may be more likely than are those in the other sites to obtain health care in Mexico. Patterns of health care use do not appear to be substantially different, however.

20. The Omnibus Budget Reconciliation Act (OBRA) of 1986 mandated coverage of emergency medical services (including childbirth services) under Medicaid for aliens without satisfactory immigration status if they met certain eligibility requirements. In that same year the Los Angeles County health director proclaimed that undocumented aliens were required to apply for Medicaid benefits so that the county could recover some expenses until eligibility had been determined. Chavez et al., "Undocumented Latin American Immigrants." In 1988 California began to provide nonemergency pregnancy-related care, including prenatal care, labor, delivery, and postpartum care, as a state-only funded benefit to undocumented aliens who met certain eligibility requirements. Thus, these services were available at the time of the survey. With the passage of PRWORA and amended sections of the legislation, undocumented immigrants are ineligible for federally funded health care with the exception of emergency services (including labor and delivery), public health immunizations, and testing for and treatment of communicable diseases. The law requires the elimination of this state-only benefit unless the state legislature passes specific legislation.
21. In 1995 undocumented alien mothers were covered by Medicaid for 78,386 births in California and 24,549 births in Texas—14 and 8 percent, respectively, of all Medicaid births in those state for that year. GAO, *Undocumented Aliens: Medicaid-Funded Births in California and Texas*, Pub. no. GAO/HEHS-97-124R (Washington: GAO, 1997).
22. PRWORA consolidated three federal/state matching-grant programs—AFDC, Emergency Assistance (EA), and the Job Opportunities and Basic Skills (JOBS) training program—into one block-grant program. The new program, Temporary Assistance for Needy Families (TANF), gives states considerable spending flexibility but also imposes new work requirements and time limits for welfare recipients. As was the case with AFDC, undocumented immigrants are not eligible for TANF. All interviews were conducted prior to TANF's implementation on 1 July 1997. In addition to these federal/state programs, California and Texas each provide some local public assistance to indigent persons.
23. Inability to obtain care refers to a "yes" in response to either of the following questions: "In the last 12 months, was there a time that you wanted medical attention or an operation but you could not get it at that time?" or "In the last 12 months, was there a time when you wanted a prescription filled, but you could not get it at that time?"
24. J. Arnold et al., *Undocumented Persons in a Health Care Reform Environment* (Falls Church, Va.: Lewin Group, 1994).
25. Chavez et al., "Undocumented Latina Immigrants in Orange County."
26. For a discussion of state strategies in the face of the new legislation, see L. Flowers-Bowie, *Funding Prenatal Care for Unauthorized Immigrants: Challenges for the States* (Washington: National Conference of State Legislatures, 1997).
27. Ibid.; G. Wilensky and M.L. Berk, "Health Care, the Poor, and the Role of Medicaid," *Health Affairs* (Fall 1982): 93–100; M.L. Berk and C.L. Schur, "Access to Care: How Much Difference Does Medicaid Make?" *Health Affairs* (May/June 1998): 169–180; A.T. Fragomen Jr., "The Illegal Immigration Reform and Immigrant Responsibility Act of 1996: An Overview," *International Migration Review* 31, no. 2 (1997): 438–460; Johnson, "Public Benefits and Immigration," 1509; and GAO, *Undocumented Aliens*.