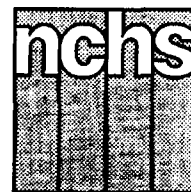


# Advance Data



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## Health of the Foreign-Born Population: United States, 1989-90

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### Introduction

In 1990, the foreign-born population of the United States reached an all-time high of 19.8 million persons, an increase of 5.7 million persons since the 1980 Census (1). According to the most recent census, about 7.9 percent of the population was foreign-born compared with an all-time low of 4.7 percent in 1970 and an all-time high of 14.7 percent in 1910 (2). Immigrants come to the United States from all over the world, and their health status and medical care utilization reflect their diverse experiences in both their countries of birth and in the United States. It is important to monitor the health of the foreign-born population, because their health care needs as well as their access to care may differ from that of persons born in the United States.

This report presents selected health statistics for the foreign-born population according to Hispanic origin, duration of residence, and selected sociodemographic characteristics. Further breakdowns by specific ethnic or national origins were not possible because of the relatively small sample sizes for specific groups.

### Sources and limitations of the data

Since 1985, the National Center for Health Statistics has gathered information on the birthplace of persons 18 years of age and over as a part of the National Health Interview Survey (NHIS) (3). This report presents estimates for selected indicators of health status and medical care utilization for the native-born and foreign-born populations in the United States. These indicators include: respondent-assessed general health status, limitation of usual activities due to impairments or chronic health conditions; days spent in bed due to health conditions; and physician contacts. To make reliable estimates of statistics for smaller subgroups of the foreign-born population, samples from the 1989 and 1990 NHIS were combined.

In 1989, for the first time, the NHIS collected data on the length of time that foreign-born persons had lived in the United States. For each foreign-born person, respondents were asked, "Altogether, how many years has [persons's name] lived in the United States?" Because foreign-born residents may have spent time living outside the United States since their first arrival, the

wording of the question was intended to elicit the number of years the person was actually a resident in the United States since their first arrival. Immigrants with different durations of residence might be expected to have different patterns of health status and health care utilization, either because there have been historical differences in the health of immigrant cohorts or because duration of residence in the United States has an effect on health. For this reason, data on the foreign-born are presented separately by duration of residence.

Immigrants may differ from U.S.-born adults in terms of sociodemographic characteristics that are related to health. Sociodemographic profiles may also vary by national origin. The NHIS does not contain detailed information on national origin but it does allow classification of Hispanic origin based on a question asking respondents to identify themselves as Hispanic or not of Hispanic origin. Although with this definition Hispanic origin does not necessarily mean that the person was born in a Spanish-speaking country, this is likely to be generally true. In this report, data are presented by selected



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sociodemographic characteristics for the total native-born and total foreign-born populations and for native-born and foreign-born persons of Hispanic origin.

Immigrants are much younger, on average, than the native-born U.S. population. Because health indicators tend to decline with increasing age, the younger, immigrant population may appear to be healthier than the native-born population. For that reason, both unadjusted and age-adjusted estimates are shown in this report.

The statistics presented in this report show the effect of immigration status, after controlling for a number of other factors known to influence health outcomes. Other characteristics of immigrants that could have affected the results are not as easily measured. For example, survey coverage of immigrant populations may be somewhat lower than for native-born residents due to language barriers, fear of being interviewed because of illegal status, and unstable or nonhousehold living arrangements. The importance of such factors for measuring health outcomes may vary by immigrant group. These factors should be kept in mind when interpreting the findings presented in this report, although their effects are expected to be small.

In the discussion that follows, the focus is on three comparisons:

- between the total adult U.S.-born population and the total adult foreign-born population;
- between U.S.-born Hispanic adults and foreign-born Hispanic adults; and
- among three groups of immigrants classified by duration of residence in the United States (less than 5 years, 5–9 years, and 10 years or more).

Unless otherwise indicated, statistical differences discussed in this report have been tested and found to be statistically significant at the 0.05 level. It should be noted that many factors affect health care and health status. The differences between immigrants and native-born persons noted in this report may result from any number of factors and should not be considered to be solely the result of place of birth or duration of residence. A brief discussion of statistical reliability and other aspects

of the NHIS design is presented in the Technical notes.

## Findings

### Characteristics of the foreign-born population

Foreign born is defined as having been born outside of the 50 United States or the District of Columbia. The categories of birthplace do not necessarily correspond to citizenship or legal status, for which data were not available in the NHIS. In particular, persons born outside the United States but in other areas under U.S. jurisdiction, such as Puerto Rico, are classified for this report as “foreign born,” although they have had certain rights of U.S. citizenship since birth. Native born is defined as having been born in one of the 50 United States or the District of Columbia. Table 1 shows the average annual number of persons 18 years of age and over according to immigrant status, Hispanic origin, and duration of residence in the United States for the foreign born. Also shown are percent distributions of each of those groups by age, income, education, geographic region, and sex.

Classification of persons as Hispanic, whether U.S. or foreign born, was based on responses to a question that asked if the sample person’s national origin or ancestry corresponded to any of those on a printed list of Hispanic-origin groups. Persons were classified as Hispanic if their national origin or ancestry was given as Puerto Rican, Cuban, Mexican/Mexicano, Chicano, other Latin American, or other Spanish.

It should be noted that the data in this report, including birthplace, origin, and length of time in the United States, are based on responses by household respondents, sometimes acting as proxies for absent adult family members. Some respondents may not have provided accurate information, either from lack of knowledge or an unwillingness to share it. The extent and effect of this source of error is not known but assumed to be small.

Table 1 shows that recent immigrants, particularly Hispanics, were

more concentrated in the younger ages than the U.S.-born population. This age distribution reflects a labor-based migration with a concentration of immigrants in the early labor years. Immigrants who have been in the United States 10 years or longer were older than more recent immigrants.

Foreign-born adults were less educated than U.S.-born adults, and Hispanic immigrants were less educated than immigrants from other parts of the world. The differences were dramatic: 78.7 percent of the total native-born population had completed 12 years or more of school compared with 64.5 percent of all immigrants, 44.8 percent of all Hispanic immigrants, and 41.1 percent of the most recent Hispanic immigrant group. Annual family income reflected these same socioeconomic differences. Recent Hispanic immigrants (67.4 percent) were more than twice as likely as the total U.S.-born adult population (31.9 percent) to have had an annual family income of less than \$20,000. The Northeast and West had larger proportions of immigrant populations than the Midwest and South, and Hispanic immigrants were concentrated in the West.

Because the foreign-born population differs from the U.S.-born population, and the immigrant groups differ by length of time in the United States, the data in tables 2–5 are shown by these variables and are adjusted for age.

### Respondent-assessed health status

Table 2 shows the percent of persons 18 years of age and over who were reported to have been in fair or poor health, based on answers to the question, “Would you say [person’s name] health is excellent, very good, good, fair, or poor?” As seen in the first panel, similar proportions of the total foreign-born and U.S.-born populations reported having been in fair or poor health (11.6 and 12.1 percent, respectively). When age was adjusted, 12.4 percent of immigrants and 12.0 percent of natives reported having been in fair or poor health. In comparing the respondent-assessed health, (using age-adjusted figures) the following

subgroups of the total foreign-born population were less likely than the corresponding subgroups of the total U.S.-born population to be in fair or poor health: persons with an annual family income less than \$20,000, persons with less than 12 years of education, and persons living in the South.

Comparing the foreign-born population by length of residence in the United States shows that the most recent immigrants were the healthiest of the three immigrant groups. This general pattern persisted even when age was controlled, suggesting that in recent years the immigration process has tended to select persons in good health. In almost all comparisons shown in table 1, the most recent immigrants were less likely than immigrants who had been here 5–9 years or 10 years or longer to report being in fair or poor health, although differences between adjacent categories were not always statistically significant.

Comparing the most recent Hispanic immigrants with U.S.-born Hispanics, controlling for age, the same general pattern prevailed. Recent immigrants were less likely to be in fair or poor health, although, again, not all of these differences were statistically significant. An apparent reversal of this pattern among Hispanics in the Northeast was not statistically significant. For most comparisons the differences were quite large; for instance (using age-adjusted numbers), 4.4 percent of recent male Hispanic immigrants report being in fair or poor health compared with 16.0 percent of U.S.-born Hispanic males.

The relationship between selected sociodemographic characteristics and assessed health status were similar for the foreign- and native-born populations. In nearly all groups—immigrant, native born, Hispanic, and non-Hispanic—persons with less than 12 years of education and persons with incomes of less than \$20,000 were twice as likely to be in fair or poor health as persons with 12 years of education or more and those with incomes of \$20,000 or more. For example, among foreign-born persons who had lived in the United States 10 years or longer, 19.6 percent of those with less than 12 years of education

were in poor or fair health compared with 8.9 percent of those with 12 years of education or more. Sex differences were also noted. Prevalence of fair or poor health was higher for females than for males in nearly all immigrant and native-born groups shown—the largest differences being observed among the most recent immigrants. Hispanic female immigrants who arrived in the past 5 years were more than three times as likely to be in poor or fair health as their male counterparts.

### Limitation in activity

Table 3 shows the percent of persons who reported having been limited in usual activities because of a chronic health condition. In almost all sociodemographic subgroups, using either unadjusted or age-adjusted figures, the total foreign-born population was less likely than the comparable total U.S.-born population to have a limitation of activity. The same pattern was observed when comparing the most recent Hispanic immigrants with U.S.-born Hispanics. Recent Hispanic immigrants were less likely to have had activity limitations, even when age was controlled. As suggested earlier, this was likely a result of selective immigration. That is, healthy persons in the country of origin were more likely than others to immigrate to the United States.

Foreign-born persons of all origins who have lived in the United States less than 5 years were much less likely to have a limitation of activity than were foreign-born persons who had been in the United States 10 years or more. Age adjusting reduced the differences, but in some cases the differences were still quite large. For example, using the age-adjusted figures, 11.6 percent of the most recent female immigrants had a limitation of activity compared with 16.1 percent of foreign-born females who had been in the United States 10 years or longer. The immigrants who had been in the United States 5–9 years were between the other two immigrant groups in every sociodemographic subgroup, although differences between the 5–9-year duration group and adjacent duration groups were not always significant.

For Hispanic-origin immigrants the same pattern held. In general, a smaller proportion of the most recent immigrants had a limitation of activity compared with the immigrants who had been in the United States 10 years or more. These differences were somewhat smaller in the age-adjusted estimates.

### Bed days

Table 4 shows the percent of persons who, during the year prior to interview, had 4 days or more in which they stayed in bed for more than one-half of the day because of a health condition. It should be noted that the number of bed days measures both health conditions (for example, frequency and severity) and responses to those conditions (for example, willingness and ability to forego usual activities). Among persons experiencing the same frequency and severity of disease, different numbers of bed days may occur because of differences in their willingness and ability to forego usual activity.

Overall, foreign-born adults were less likely than U.S.-born adults to have had 4 bed days or more; the differences were significant in every subgroup except for persons living in the Northeast and Midwest. In every sociodemographic group shown in table 4, foreign-born persons who had been in the United States less than 5 years were significantly less likely to have spent 4 days or more in bed than their counterparts who had lived in the United States for 10 years or longer. This is consistent with the findings presented earlier that recent immigrants were less likely than immigrants who had been in the United States for 10 years or longer to be in fair or poor health. Immigrants who had lived in the United States 5–9 years were between the other two duration groups in terms of bed days reported. Although not all differences were statistically significant, the overall pattern was consistent. Among immigrants, the longer they were residents in the United States, the greater the probability that a person would have spent an average of 4 days

or more in bed due to illness or injury in the past year.

Overall, findings for Hispanic-origin immigrants paralleled those for immigrants as a whole. The most recent Hispanic-origin immigrants were generally the healthiest of the three duration groups, although, again, not all differences were statistically significant.

### Physician contacts

Table 5 shows the percent of persons with six physician contacts or more (visit or telephone call with a doctor or health care provider working under a doctor's supervision) during the year prior to the interview. Six visits was chosen as it is above the average for the U.S. population. It should be noted that the number of physician contacts reflects, as does the number of bed days, the frequency and severity of health conditions and access to health care.

Although the differences were smaller than in some of the previous tables, the total foreign-born population was less likely than the U.S.-born population to have had six or more physician contacts. Foreign-born persons who had lived in the United States less than 5 years generally were less likely than persons who had lived in the United States 10 years or more to have had six or more physician contacts.

Similarly, in comparing the foreign-born Hispanic population by duration of residence in the United States, the most recent Hispanic immigrants were less likely to have had six or more physician contacts than Hispanic immigrants who had been in the United States 10 years or more.

As was found for other measures of health status, sociodemographic variations were similar for immigrant and U.S.-born adults. Regardless of immigration status, females were much more likely than males to have had six or more physician contacts. For instance, 21.2 percent of recent female Hispanic immigrants had six or more physician contacts compared with 9.1 percent of the recent male Hispanic immigrants. Similarly, 23.2 percent of native-born females had six or more contacts compared with 14.1 percent of

native-born males. In general, among both immigrant and U.S.-born adults, persons with incomes under \$20,000 or less than 12 years of education were more likely than persons with higher incomes or more education to have had six or more physician contacts.

### Summary

The health status of immigrants is of vital interest to health policy planners as the number of immigrants in the United States increases. This report has shown that, overall, foreign-born persons had better health than the U.S.-born population, although this health advantage varied by length of residence in the United States. In virtually every measure of health status, and with regard to almost every sociodemographic characteristic, the most recent immigrants were healthier than foreign-born persons who have lived in the United States 10 years or more as well as healthier than the U.S.-born population. Immigrants who had lived in the United States 10 years or longer were generally healthier than U.S.-born adults, although the differences were not as striking as between recent immigrants and the native-born population.

These findings may be explained in several ways. First, recent cohorts of immigrants may have been healthier than earlier cohorts of immigrants at the time of immigration. If so, as their duration of residence in the United States increases, they will continue to be significantly healthier than native-born persons. Second, earlier cohorts of immigrants may have been as healthy as recent cohorts at the time of immigration, but their health has deteriorated with increased duration of residence in the United States. This suggests that immigrants had or acquired physical conditions or behaviors that put them at risk in their new environment or that access to health care has been limited. It also suggests that more recent cohorts of immigrants could experience a similar deterioration of health as their duration of residence in the United States increases. Finally, these findings may reflect a combination of these influences

or other factors not considered. To understand these patterns will require additional research, including comparative studies of the health of immigrants in the United States with the health of nonmigrants (stayers) in the countries of immigrant origin.

### References

1. U.S. Bureau of the Census, Ethnic and Hispanic Branch. 1990 CPH-L-90, 1990 Census special tabulations. Washington, D.C.: Government Printing Office. 1992.
2. Jasso G, Rosenzweig MR. The new chosen people: Immigrants in the United States. New York: Russell Sage Foundation. 1990.
3. Hendershot GE. Health of the foreign-born population: United States, 1985-86. Advance data from vital and health statistics; no 157. Hyattsville, Maryland: National Center for Health Statistics. 1988.
4. Adams PF, Benson V. Current estimates from the National Health Interview Survey, 1989. National Center for Health Statistics. Vital Health Stat 10(176). 1990.
5. Adams PF, Benson V. Current estimates from the National Health Interview Survey, 1990. National Center for Health Statistics. Vital Health Stat 10(181). 1991.

**Table 1. Average annual number and percent distribution of persons 18 years of age and over by immigrant status, Hispanic origin, and duration of residence, according to selected characteristics: United States, 1989-90**

Selected characteristic	Immigrant status										
	All immigrant statuses <sup>1</sup>	Native born		Immigrant							
		All origins	Hispanic origin	All origins				Hispanic origin			
				Duration of residence in the United States				Duration of residence in the United States			
				All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more	All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more
Number in thousands											
All persons . . . . .	180,488	161,966	6,501	17,899	3,210	3,028	11,660	6,992	1,262	1,256	4,474
Percent distribution											
All persons . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Age											
18-24 years . . . . .	14.0	13.9	25.2	14.2	29.3	19.3	8.7	18.3	39.6	24.7	10.6
25-34 years . . . . .	23.7	23.3	29.9	27.1	39.3	41.3	20.0	30.7	36.0	44.3	25.5
35-44 years . . . . .	20.3	20.2	19.6	21.0	15.7	22.3	22.1	21.6	13.1	18.3	24.9
45-64 years . . . . .	25.7	25.8	18.2	24.4	12.2	13.1	30.6	22.1	9.3	10.5	29.0
65 years and over . . . . .	16.3	16.7	7.0	13.4	3.4	4.0	18.6	7.2	2.1	2.1	10.1
Annual family income											
Less than \$20,000 . . . . .	32.7	31.9	39.2	39.4	54.1	42.1	34.7	51.7	67.4	54.8	46.5
\$20,000 or more . . . . .	64.0	64.8	57.6	57.9	43.7	55.3	62.4	46.2	31.1	43.1	51.3
Education											
Less than 12 years . . . . .	21.7	20.2	29.5	34.6	33.3	36.6	34.4	54.3	57.3	58.2	52.4
12 years or more . . . . .	77.3	78.7	69.7	64.5	65.7	62.4	64.8	44.8	41.4	41.2	46.8
Region											
Northeast . . . . .	21.0	19.9	11.4	30.6	29.6	27.8	31.6	24.0	23.7	21.6	24.8
Midwest . . . . .	24.3	25.8	8.7	11.4	11.2	8.9	12.0	7.1	7.6	6.6	7.0
South . . . . .	33.9	35.1	35.2	22.7	22.4	24.2	22.4	28.5	25.3	29.7	29.1
West . . . . .	20.9	19.2	44.7	35.4	36.9	39.0	34.0	40.4	43.4	42.1	39.1
Sex											
Male . . . . .	47.5	47.5	47.1	47.8	49.6	52.0	46.3	49.1	52.0	52.9	47.3
Female . . . . .	52.5	52.5	52.9	52.2	50.4	48.0	53.7	50.9	48.0	47.1	52.8

<sup>1</sup>Includes unknown immigrant status.

<sup>2</sup>Excludes unknown duration.

**Table 2. Percent and age-adjusted percent of persons 18 years of age and over whose respondent-assessed health was fair or poor, by Immigrant status, Hispanic origin, and duration of residence: United States, 1989-90**

Selected characteristic	Immigrant status										
	All immigrant statuses <sup>1</sup>	Immigrant									
		Native born		All origins				Hispanic origin			
		All origins	Hispanic origin	Duration of residence in the United States				Duration of residence in the United States			
				All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more	All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more
Percent											
All persons . . . . .	12.0	12.1	13.1	11.6	6.3	8.4	13.8	13.1	6.9	8.9	16.0
Annual family income											
Less than \$20,000 . . . . .	21.8	22.4	21.6	17.5	8.6	12.7	22.8	17.1	8.2	11.0	22.7
\$20,000 or more . . . . .	6.9	6.9	7.2	7.5	3.6	5.3	8.8	8.9	*4.3	6.7	10.1
Education											
Less than 12 years . . . . .	26.4	27.9	24.7	19.0	10.0	12.8	23.1	17.3	9.0	10.9	21.9
12 years or more . . . . .	7.9	7.9	8.1	7.5	4.5	5.7	8.8	8.0	4.0	6.2	9.4
Region											
Northeast . . . . .	9.9	9.3	8.2	13.2	6.7	8.8	15.9	17.7	10.0	11.4	21.2
Midwest . . . . .	10.9	10.9	8.7	11.5	*4.2	*5.9	14.4	11.3	*4.2	*7.2	14.6
South . . . . .	14.9	15.4	16.3	9.4	4.3	7.5	11.3	11.0	*6.3	6.7	13.5
West . . . . .	10.6	10.5	12.7	11.6	7.8	9.1	13.4	12.1	5.8	9.5	14.8
Sex											
Male . . . . .	10.9	11.0	11.8	9.4	4.5	7.1	11.5	10.5	3.2	7.8	13.6
Female . . . . .	13.0	13.0	14.3	13.5	8.1	9.7	15.8	15.6	10.9	10.3	18.2
Age-adjusted percent											
All persons . . . . .	12.0	12.0	16.8	12.4	9.7	13.3	12.7	16.2	11.6	15.2	17.1
Annual family income											
Less than \$20,000 . . . . .	21.1	21.5	26.8	18.8	13.5	19.5	20.4	20.7	15.3	16.6	23.1
\$20,000 or more . . . . .	7.8	7.8	9.7	8.7	6.5	9.0	9.0	12.0	*6.6	15.2	12.2
Education											
Less than 12 years . . . . .	22.8	23.8	26.5	18.4	13.5	17.2	19.6	20.2	15.1	17.0	21.8
12 years or more . . . . .	8.7	8.7	11.5	8.8	7.3	10.3	8.9	10.5	6.9	12.1	11.0
Region											
Northeast . . . . .	9.6	8.9	9.9	13.2	10.7	14.1	13.7	19.5	14.5	17.3	20.9
Midwest . . . . .	10.9	10.9	12.6	11.2	*7.5	*18.0	12.0	16.3	*4.6	*22.8	17.9
South . . . . .	14.9	15.2	20.4	10.7	5.3	12.8	11.1	13.2	*9.1	11.4	13.8
West . . . . .	11.1	10.7	15.9	13.0	12.1	12.7	13.2	16.3	11.8	15.4	16.8
Sex											
Male . . . . .	11.3	11.4	16.0	10.7	6.6	11.6	11.1	13.4	4.4	14.5	14.8
Female . . . . .	12.7	12.5	17.6	13.9	12.1	14.9	14.0	18.6	16.4	16.1	19.0

<sup>1</sup>Includes unknown immigrant status.

<sup>2</sup>Excludes unknown duration.

**Table 3. Percent and age-adjusted percent of persons 18 years of age and over who were limited in activity due to a chronic condition or impairment, by immigrant status, Hispanic origin, and duration of residence: United States, 1989-90**

Selected characteristic	Immigrant status										
	All immigrant statuses <sup>1</sup>	Immigrant									
		Native born			All origins				Hispanic origin		
		All origins	Hispanic origin	Duration of residence in the United States							
			All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more	All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more	
					Percent						
All persons . . . . .	17.0	17.5	13.9	12.8	5.5	7.0	16.3	11.7	4.8	6.4	15.2
Annual family income											
Less than \$20,000 . . . . .	27.5	28.8	19.7	17.8	6.3	9.5	25.3	14.9	4.9	7.4	21.4
\$20,000 or more . . . . .	11.7	12.0	10.0	9.3	4.6	5.3	11.2	8.3	*4.6	5.4	9.7
Education											
Less than 12 years . . . . .	30.0	32.3	22.5	18.4	7.2	9.2	24.0	14.3	4.8	6.7	19.6
12 years or more . . . . .	13.3	13.6	10.2	9.6	4.5	5.5	12.1	8.6	4.2	6.0	10.3
Region											
Northeast . . . . .	15.7	15.9	10.4	14.7	6.5	7.8	18.4	15.8	8.4	8.5	19.7
Midwest . . . . .	16.9	17.0	13.1	14.0	*5.6	*5.5	17.8	11.3	*7.3	*7.2	13.7
South . . . . .	18.4	18.9	14.7	11.7	4.2	6.8	15.2	12.3	*3.8	6.7	16.0
West . . . . .	16.2	17.2	14.3	11.5	5.4	6.7	14.7	9.0	*2.9	4.7	12.1
Sex											
Male . . . . .	16.2	16.8	13.7	11.0	5.0	6.6	14.0	10.0	3.7	6.3	13.1
Female . . . . .	17.8	18.1	14.1	14.5	6.1	7.4	18.3	13.4	5.8	6.4	17.2
Age-adjusted percent											
All persons . . . . .	17.0	17.4	18.0	13.9	10.6	12.5	14.9	15.3	9.9	13.5	16.5
Annual family income											
Less than \$20,000 . . . . .	26.3	27.4	24.7	19.1	13.5	16.2	22.0	19.0	11.9	13.9	21.9
\$20,000 or more . . . . .	13.0	13.2	13.3	10.8	8.4	10.4	11.5	11.8	*8.9	12.4	12.1
Education											
Less than 12 years . . . . .	25.3	27.2	24.0	17.5	11.0	14.3	19.5	17.4	9.9	12.8	19.6
12 years or more . . . . .	14.4	14.7	14.4	11.5	10.8	11.1	12.3	12.2	11.2	15.0	12.4
Region											
Northeast . . . . .	15.2	15.3	14.0	14.6	12.8	13.2	15.7	18.2	13.1	12.3	20.1
Midwest . . . . .	16.8	17.0	16.5	13.6	*11.3	*13.0	14.5	18.9	*7.6	22.7	19.2
South . . . . .	18.4	18.7	19.0	13.6	9.5	13.7	14.8	14.7	*9.3	13.4	16.1
West . . . . .	16.8	17.5	18.1	13.4	10.3	11.6	14.5	13.2	*6.9	8.7	14.2
Sex											
Male . . . . .	16.7	17.2	17.6	12.5	9.2	13.1	13.4	13.3	5.9	17.3	14.4
Female . . . . .	17.2	17.5	18.4	14.9	11.6	12.2	16.1	16.8	11.8	11.1	18.3

<sup>1</sup>Includes unknown immigrant status.

<sup>2</sup>Excludes unknown duration.

Table 4. Percent and age-adjusted percent of persons 18 years of age and over who had 4 or more bed days in the past year, by immigrant status, Hispanic origin, and duration of residence: United States, 1989-90

Selected characteristic	Immigrant status										
	All immigrant statuses <sup>1</sup>	Immigrant									
		Native born		All origins				Hispanic origin			
		All origins	Hispanic origin	Duration of residence in the United States				Duration of residence in the United States			
				All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more	All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more
Percent											
All persons . . . . .	20.7	21.1	22.3	17.2	12.2	14.8	19.3	16.8	11.6	13.5	19.3
Annual family income											
Less than \$20,000 . . . . .	25.4	26.2	26.1	19.8	13.3	15.3	23.9	18.5	11.4	15.6	22.3
\$20,000 or more . . . . .	18.6	18.9	19.9	15.7	11.0	14.5	16.9	15.3	12.5	11.1	16.9
Education											
Less than 12 years . . . . .	24.7	25.9	25.2	18.4	11.4	13.1	21.8	16.4	9.1	13.0	19.8
12 years or more . . . . .	19.7	20.0	21.3	16.6	12.5	15.8	18.0	17.5	15.3	14.3	18.8
Region											
Northeast . . . . .	19.9	20.0	23.0	19.2	13.1	16.6	21.4	21.1	15.1	15.5	24.1
Midwest . . . . .	20.0	20.1	20.9	18.0	13.6	15.5	19.5	15.0	*8.3	*14.5	17.5
South . . . . .	21.1	21.5	20.9	15.9	12.0	15.0	17.2	15.6	12.9	15.0	16.4
West . . . . .	21.8	23.1	23.6	16.2	11.2	13.0	18.6	15.6	9.7	11.3	18.8
Sex											
Male . . . . .	16.7	17.1	17.0	13.1	7.3	11.0	15.4	12.6	6.9	10.7	14.9
Female . . . . .	24.4	24.8	27.1	21.0	16.9	18.8	22.6	21.0	16.7	16.4	23.3
Age-adjusted percent											
All persons . . . . .	20.7	21.1	22.8	17.6	13.2	16.1	18.9	18.3	14.6	18.1	19.8
Annual family income											
Less than \$20,000 . . . . .	25.5	26.4	26.9	20.1	13.2	17.5	23.0	20.0	11.9	19.4	22.5
\$20,000 or more . . . . .	18.8	19.1	20.0	16.2	13.1	15.2	17.0	17.2	19.1	16.8	18.0
Education											
Less than 12 years . . . . .	23.8	25.4	25.8	18.0	12.6	14.7	20.5	17.9	12.3	15.9	20.0
12 years or more . . . . .	19.7	20.0	20.5	17.1	13.1	17.0	18.0	18.8	19.4	21.8	19.3
Region											
Northeast . . . . .	19.8	19.9	25.2	19.1	16.3	18.2	20.4	22.2	23.3	19.1	24.7
Midwest . . . . .	20.0	20.1	21.5	17.9	13.8	21.9	18.4	16.7	*4.5	*17.9	18.0
South . . . . .	21.1	21.4	21.7	16.4	11.6	17.7	17.3	16.7	14.0	19.9	16.5
West . . . . .	21.8	23.1	23.5	16.6	11.6	13.1	18.6	17.2	9.3	12.4	19.4
Sex											
Male . . . . .	16.9	17.3	18.2	13.8	8.3	12.9	15.2	14.2	7.3	16.7	15.5
Female . . . . .	24.4	24.8	26.8	21.1	17.5	19.4	22.2	22.2	19.6	19.6	23.6

<sup>1</sup>Includes unknown immigrant status.

<sup>2</sup>Excludes unknown duration.



**Table 5. Percent and age-adjusted percent of persons 18 years of age and over who had six or more physician contacts in the past year, by immigrant status, Hispanic origin, and duration of residence: United States, 1989-90**

Selected characteristic	Immigrant status											
	All immigrant statuses <sup>1</sup>	Immigrant										
		Native born	All origins						Hispanic origin			
			All origins	Hispanic origin	Duration of residence in the United States			Duration of residence in the United States				
			All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more	All durations <sup>2</sup>	Less than 5 years	5-9 years	10 years or more		
Percent												
All persons . . . . .	18.6	18.9	17.3	15.8	11.2	13.5	17.7	16.4	11.2	13.3	18.7	
Annual family income												
Less than \$20,000 . . . . .	22.7	23.3	21.0	18.5	11.7	14.7	22.6	18.7	11.1	15.1	23.0	
\$20,000 or more . . . . .	16.7	16.9	14.9	14.2	10.6	13.0	15.1	13.9	11.2	11.3	15.0	
Education												
Less than 12 years . . . . .	23.2	24.1	20.3	18.8	11.4	14.8	21.9	17.6	10.1	13.3	21.3	
12 years or more . . . . .	17.3	17.6	16.0	14.2	11.0	12.9	15.4	14.9	12.8	13.5	15.8	
Region												
Northeast . . . . .	19.0	19.3	17.6	17.7	13.4	14.7	19.6	21.8	16.4	16.2	24.6	
Midwest . . . . .	18.2	18.3	15.6	14.4	10.3	12.5	15.8	14.2	*8.3	*8.4	17.5	
South . . . . .	18.0	18.3	15.7	14.1	9.2	12.8	15.8	14.3	8.5	13.9	15.8	
West . . . . .	19.4	20.1	18.7	15.8	11.1	13.3	17.9	15.0	10.4	11.9	17.3	
Sex												
Male . . . . .	13.5	13.8	11.2	10.5	5.2	7.8	12.8	10.3	4.3	8.1	12.8	
Female . . . . .	23.1	23.4	22.7	20.8	17.2	19.8	21.9	22.3	18.6	18.9	24.0	
Age-adjusted percent												
All persons . . . . .	18.5	18.8	19.0	16.4	14.0	16.3	17.1	19.2	15.8	18.5	20.0	
Annual family income												
Less than \$20,000 . . . . .	21.7	22.2	22.8	18.9	14.9	19.4	20.7	21.9	15.4	20.9	23.6	
\$20,000 or more . . . . .	17.4	17.7	16.3	15.1	13.1	14.2	15.5	16.4	14.8	15.0	16.9	
Education												
Less than 12 years . . . . .	20.6	21.4	20.6	18.2	13.4	17.3	19.5	20.4	15.7	15.9	21.7	
12 years or more . . . . .	17.9	18.1	17.5	15.2	14.1	15.8	15.6	17.0	16.8	21.9	17.0	
Region												
Northeast . . . . .	18.8	19.0	21.2	17.7	18.7	18.5	18.0	23.9	23.7	18.0	24.9	
Midwest . . . . .	18.1	18.3	18.6	14.2	10.4	18.4	14.3	18.3	*7.0	*8.8	20.9	
South . . . . .	18.0	18.2	18.0	15.3	11.0	16.8	15.9	16.7	13.4	22.3	16.4	
West . . . . .	19.6	20.3	19.6	16.8	13.5	15.2	18.1	17.4	13.0	12.6	18.7	
Sex												
Male . . . . .	13.8	14.1	13.8	11.7	10.3	12.5	12.4	13.6	9.1	17.0	14.2	
Female . . . . .	23.0	23.2	23.7	20.9	17.9	20.7	21.4	24.5	21.2	21.1	25.3	

<sup>1</sup>Includes unknown immigrant status.

<sup>2</sup>Excludes unknown duration.

## Technical notes

The National Health Interview Survey is a continuous, cross-sectional, national survey conducted by household interview. Each week a probability sample of households in the civilian noninstitutionalized population of the United States is interviewed to obtain information on the health status of each member of the household as well as other background characteristics. The 1989 survey included 45,711 households containing 116,929 persons. Among these were 8,142 persons who were reported to have been born outside of the United States. The 1990 survey included 46,476 households containing 119,631 persons. This included 8,851 persons who were reported to have been born outside of the United States.

All persons 17 years of age and over were asked to participate in the interview. Proxy responses were accepted from other adult family members for children and teens under 17 years of age and for adults not present or unable to respond for themselves. About two-thirds of all adult family members responded for themselves.

Because the estimates shown in this report are based on a sample, they are subject to sampling error. A measure of the sampling error is given by the standard error. Approximate standard errors for estimated percents in this report are given by the formula:

$$SE(p) = \sqrt{\frac{3,565p(100-p)}{y}}$$

where SE is the standard error,  $p$  is the estimated percent, and  $y$  is the estimated base of the percent. The bases of the percents in table 1 are shown in the first line and the bases of the percents shown in tables 2–5 can be calculated from the data in table 1.

The approximate standard error of the difference between percents is given by the formula:

$$SE(x_1 - x_2) = \sqrt{SE(x_1)^2 + SE(x_2)^2}$$

where  $x_1$  and  $x_2$  are the two percents being compared,  $x_1 - x_2$  is the difference between them, and  $SE(x_1)$  and  $SE(x_2)$  are the standard errors of the two

percents. In this report, a difference was considered statistically significant at the 0.05 level if the difference between the two percents was at least twice as large as its standard error.

More detailed discussions of the sample design, estimating procedures, procedures for estimating standard errors, nonsampling errors, and definitions of terms used in this report have been published (4,5).

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**Symbols**

- - - Data not available.
  - . . . Category not applicable
  - Quantity zero
  - 0.0 Quantity more than zero but less than 0.05
  - Z Quantity more than zero but less than 500 where numbers are rounded to thousands
  - \* Figure does not meet standard of reliability or precision (more than 30-percent relative standard error in numerator of percent or rate)
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