



## Health of the Foreign-Born Population: United States, 1985-86

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### Introduction

Foreign-born persons constitute a large and growing proportion of the U.S. population. Their origins are diverse, but they share the common experience of having migrated to the United States from another nation. That common experience and the ethnic diversity it encompasses may have implications for the health status and medical care utilization of the foreign-born population.

In 1985, the National Center for Health Statistics, by means of the National Health Interview Survey (NHIS), began collecting information on the birthplace of adult persons 18 years of age and over in its sample households, making it possible for the first time to estimate a wide range of national health statistics for the foreign-born population. Two years of data (1985 and 1986) were combined to make reliable estimates because the 1985 NHIS sample was only three-fourths as large as originally planned, and the 1986 sample was only one-half as large (for budgetary reasons). The purpose of this report is to present such estimates for the following selected indicators of health status and health care: respondent-assessed general health; limitation of normal activities due to a chronic health condition; days in bed due to health conditions; hospitalization; and physician contacts.

Immigrants from different origins have different characteristics. The statistics in this report are for all foreign-born persons, foreign-born persons of Mexican ethnic origin, and foreign-born persons of all Hispanic ethnic origins (Mexican and other Hispanic). However, reliable estimates could not be made for foreign-born persons of other specific ethnic origins because of the relatively small sizes of the samples of those persons.

For comparison, health statistics also are shown for the U.S.-born population according to Hispanic and Mexican origin. In the discussion that follows, the focus is on two comparisons—that between the total U.S.-born population

and the total foreign-born population and that between the total U.S.-born population and the foreign-born population of Mexican origin. Of course, many other comparisons can be made with the data that are presented.

Unless otherwise indicated, differences between the U.S.-born and foreign-born populations discussed in this report have been tested and found to be statistically significant. It should be noted that many factors affect health status and health care. Therefore, any differences between the U.S.-born and foreign-born populations in these respects may not be the result of differences in birthplace but may be the result of other factors not considered here. A brief discussion of statistical reliability and other aspects of the NHIS design is presented in the Technical notes to this report.

### Characteristics of the foreign-born population

Table 1 shows the number and selected sociodemographic characteristics of the U.S.-born and the foreign-born adult, civilian noninstitutionalized populations. "U.S. born" means born in one of the 50 U.S. States and "foreign born" means born outside the 50 U.S. States. The categories of birthplace do not necessarily correspond to categories of citizenship or legal status, for which data were not available in the NHIS. Classification of persons as "Hispanic" or "Mexican" 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 Puerto Rican, Cuban, Mexican/Mexicano, Chicano, other Latin American, or other Spanish. They were further classified as Mexican if their national origin was Mexican/Mexicano, or Chicano. As used in this report, the term origin refers to Hispanic or Mexican origin as determined in this manner.

**Table 1. Number of persons 18 years of age and over and percent distribution by age, sex, education, and annual family income, according to birthplace and Hispanic origin: United States, 1985-86**

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualification, and information on the reliability of the estimates are given in Technical notes.]

Characteristic	U.S. born			Foreign born		
	Total <sup>1</sup>	Hispanic		Total <sup>1</sup>	Hispanic	
		Total <sup>2</sup>	Mexican		Total <sup>2</sup>	Mexican
Number in thousands <sup>3</sup> . . .	156,584	5,706	4,190	14,876	5,228	2,036
Age	Percent distribution					
18-44 years. . . . .	58.2	75.1	77.3	59.2	69.1	76.5
45-64 years. . . . .	26.0	19.0	17.8	24.5	21.4	16.1
65 years and over . . . . .	15.8	5.8	5.0	16.3	9.5	7.4
Sex						
Male . . . . .	47.3	46.6	46.9	47.5	49.3	54.3
Female . . . . .	52.7	53.4	53.1	52.5	50.7	45.7
Education						
Less than 12 years . . . . .	23.3	32.5	36.2	35.5	52.9	73.3
12 years. . . . .	40.0	38.6	37.4	28.2	24.2	15.8
More than 12 years. . . . .	36.6	29.0	26.4	36.3	22.9	10.9
Annual family income						
Less than \$20,000 . . . . .	40.0	46.0	48.2	47.0	58.0	67.0
\$20,000 or more . . . . .	60.0	54.0	51.8	53.0	42.0	33.0

<sup>1</sup>Includes persons of unknown Hispanic origin.

<sup>2</sup>Includes persons of unknown Mexican origin.

<sup>3</sup>Includes persons with unknown education and family income.

It should be noted that the classification of birthplace and origin is based on information given by household respondents.

Adjusting by the immigration that occurred in the early 1980's, the 1985-86 NHIS estimate for the total foreign-born adult population—about 14.9 million—is consistent with the number enumerated in the 1980 Census of Population—14.1 million (U.S. Bureau of the Census, 1980). For the foreign-born population of Mexican origin, however, the NHIS estimate—about 2.0 million (with a sampling error of about 0.1 million)—is slightly lower than the number enumerated in the 1980 census—2.2 million. Because the actual foreign-born population of Mexican origin is believed to have increased in the early 1980's, this suggests that the NHIS sample underestimates that population. There is no known reason to believe, however, that the possible underestimate creates a bias in the health statistics for the foreign-born population of Mexican origin presented in this report.

Table 1 also shows that, as a whole, the foreign-born population is similar to the U.S.-born population with respect to age and sex distributions but differs with respect to education and income: Compared with the U.S.-born population, foreign-born persons are more likely to have less than 12 years of education and more likely to have a family income below \$20,000 per year.

Comparing the U.S.-born population with the foreign-born population of Mexican origin, the only immigrant group identified by a specific origin in this report, foreign-born persons of Mexican origin are younger, more likely to be male, much more likely to have less than a high school

education, and more likely to have a family income under \$20,000. Because the foreign-born adult population, especially that of Mexican origin, differs from the U.S.-born adult population with respect to these sociodemographic characteristics, the health statistics in tables 2-6 are stratified by these variables.

## 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 (the sample person's) health is excellent, very good, good, fair, or poor?" Overall, the foreign-born and the U.S.-born populations were equally likely to have been in fair or poor health—12.9 percent. However, foreign-born persons with less than 12 years of education and those with a family income below \$20,000 were less likely than U.S.-born persons of similar education and income to have been in fair or poor health.

Comparing the foreign-born population of Mexican origin with the U.S.-born population, the same statements can be made, but the differences are larger; that is, foreign-born persons of Mexican origin who were less well-educated or who had lower incomes were much less likely than U.S.-born persons with those characteristics to have been in fair or poor health.

**Table 2. Percent of persons 18 years of age and over who were in fair or poor health, by age, sex, education, and annual family income, according to birthplace and Hispanic origin: United States, 1985-86**

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualification, and information on the reliability of the estimates are given in Technical notes.]

Characteristic	U.S. born			Foreign born		
	Total <sup>1</sup>	Hispanic		Total <sup>1</sup>	Hispanic	
		Total <sup>2</sup>	Mexican		Total <sup>2</sup>	Mexican
Age						
18 years and over . . . . .	12.9	13.0	13.3	12.9	14.3	13.0
18-44 years. . . . .	5.7	8.6	9.3	5.5	7.3	6.6
45-64 years. . . . .	18.4	22.7	25.1	17.5	25.6	28.9
65 years and over . . . . .	30.3	37.7	34.6	33.0	39.4	43.9
Sex						
Male . . . . .	11.9	11.1	11.4	11.0	11.4	11.5
Female . . . . .	13.8	14.6	15.1	14.6	17.1	14.8
Education						
Less than 12 years . . . . .	29.0	24.7	24.2	21.4	18.4	13.7
12 years. . . . .	10.4	9.5	8.8	10.2	11.7	13.5
More than 12 years. . . . .	5.2	4.1	4.7	6.2	7.1	6.1
Annual family income						
Less than \$20,000 . . . . .	22.1	21.1	21.4	17.9	17.6	12.8
\$20,000 or more . . . . .	6.7	5.7	5.2	8.5	9.5	11.9

<sup>1</sup>Includes persons of unknown Hispanic origin.

<sup>2</sup>Includes persons of unknown Mexican origin.

## Limitation in activity

Table 3 shows the percent of persons who were reported to have been limited in normal activities because of a chronic health condition. In every category of every

**Table 3. Percent of persons 18 years of age and over who were limited in activity by age, sex, education, and annual family income, according to birthplace and Hispanic origin: United States, 1985-86**

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualification, and information on the reliability of the estimates are given in Technical notes.]

Characteristic	U.S. born			Foreign born		
	Total <sup>1</sup>	Hispanic		Total <sup>1</sup>	Hispanic	
		Total <sup>2</sup>	Mexican		Total <sup>2</sup>	Mexican
<b>Age</b>						
18 years and over . . . . .	17.6	13.2	12.1	13.2	12.5	8.9
18-44 years. . . . .	8.9	8.3	8.0	5.4	5.7	3.9
45-64 years. . . . .	23.8	23.7	21.6	17.2	21.9	18.3
65 years and over . . . . .	39.6	42.0	42.0	11.7	41.5	40.4
<b>Sex</b>						
Male . . . . .	16.9	12.7	11.8	11.9	10.5	7.4
Female . . . . .	18.2	13.7	12.3	14.4	14.5	10.7
<b>Education</b>						
Less than 12 years . . . . .	31.5	22.3	20.2	20.0	15.5	9.8
12 years. . . . .	14.7	9.9	8.0	10.7	9.5	7.3
More than 12 years. . . . .	11.7	7.3	6.9	7.9	8.6	6.3
<b>Annual family income</b>						
Less than \$20,000 . . . . .	26.7	19.8	18.4	17.1	14.5	9.4
\$20,000 or more . . . . .	11.7	7.7	6.4	9.5	9.8	7.7

<sup>1</sup>Includes persons of unknown Hispanic origin.  
<sup>2</sup>Includes persons of unknown Mexican origin.

variable considered in table 3, the foreign-born population was less likely than the comparable U.S.-born population to have had a limitation of activity.

The same pattern of differences is found when comparing the foreign-born population of Mexican origin and the U.S.-born population: In most categories, foreign-born persons of Mexican origin were less likely than U.S.-born persons to have had a limitation of activity. (The exceptions are persons 45 years of age and over and those with more than 12 years of education, among whom the U.S.-born population and the foreign-born population of Mexican origin did not differ significantly.)

**Bed days**

Table 4 shows the percent of persons who had 4 days or more during the year before interview when they stayed in bed for more than one-half of the day because of a health condition. Four bed days per year is more than the average for the U.S. population. With the exception of persons 45 years of age and over, foreign-born persons in every category shown were significantly less likely than U.S.-born persons to have had 4 bed days or more.

Comparing the foreign-born population of Mexican origin with the U.S.-born population, the same pattern of differences was found. The differences, where they existed, were even larger: Foreign-born persons of Mexican origin were much less likely than U.S.-born persons with similar socioeconomic characteristics to have had 4 bed days or more in the year before interview (although the difference is not statistically significant for those with 12 years of education).

**Table 4. Percent of persons 18 years of age and over who had 4 bed days or more in the last year, by age, sex, education, and annual family income, according to birthplace and Hispanic origin: United States, 1985-86**

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualification, and information on the reliability of the estimates are given in Technical notes.]

Characteristic	U.S. born			Foreign born		
	Total <sup>1</sup>	Hispanic		Total <sup>1</sup>	Hispanic	
		Total <sup>2</sup>	Mexican		Total <sup>2</sup>	Mexican
<b>Age</b>						
18 years and over . . . . .	22.8	22.6	21.9	18.8	17.6	13.6
18-44 years. . . . .	22.4	21.8	21.5	15.6	14.0	10.6
45-64 years. . . . .	21.7	23.4	21.4	20.7	23.1	20.5
65 years and over . . . . .	26.3	30.9	29.9	27.6	31.8	30.2
<b>Sex</b>						
Male . . . . .	18.5	18.0	17.1	15.3	12.3	10.4
Female . . . . .	26.8	26.6	26.2	22.0	22.8	17.4
<b>Education</b>						
Less than 12 years . . . . .	27.1	25.3	24.3	20.9	17.8	13.8
12 years. . . . .	21.3	19.9	19.6	18.9	19.6	16.1
More than 12 years. . . . .	21.9	23.2	22.1	16.6	14.9	9.8
<b>Annual family income</b>						
Less than \$20,000 . . . . .	26.9	24.7	24.3	20.5	17.9	13.1
\$20,000 or more . . . . .	20.5	20.3	19.3	17.7	17.4	15.2

<sup>1</sup>Includes persons of unknown Hispanic origin.  
<sup>2</sup>Includes persons of unknown Mexican origin.

**Hospital stays**

Table 5 shows the percent of persons who were hospitalized overnight on one occasion or more during the 12 months before interview. In every category shown, the foreign-born population was less likely than the comparable

**Table 5. Percent of persons 18 years of age and over who had 1 or more hospital stays in the last year, by age, sex, education, and annual family income, according to birthplace and Hispanic origin: United States, 1985-86**

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualification, and information on the reliability of the estimates are given in Technical notes.]

Characteristic	U.S. born			Foreign born		
	Total <sup>1</sup>	Hispanic		Total <sup>1</sup>	Hispanic	
		Total <sup>2</sup>	Mexican		Total <sup>2</sup>	Mexican
<b>Age</b>						
18 years and over . . . . .	10.8	9.7	9.7	9.5	10.0	8.9
18-44 years. . . . .	9.0	9.5	9.8	8.1	9.5	8.8
45-64 years. . . . .	10.5	8.2	7.5	7.8	7.7	6.3
65 years and over . . . . .	18.1	17.7	17.5	17.0	18.4	15.6
<b>Sex</b>						
Male . . . . .	8.6	5.5	4.8	7.0	5.6	4.2
Female . . . . .	12.8	13.4	14.1	11.8	14.2	14.5
<b>Education</b>						
Less than 12 years . . . . .	15.0	11.7	11.6	11.6	10.1	9.2
12 years. . . . .	10.2	9.2	8.7	10.0	10.9	9.8
More than 12 years. . . . .	8.8	8.2	8.7	7.1	8.5	6.2
<b>Annual family income</b>						
Less than \$20,000 . . . . .	13.5	11.7	11.5	10.4	10.3	8.8
\$20,000 or more . . . . .	9.1	7.7	7.7	8.6	9.3	9.0

<sup>1</sup>Includes persons of unknown Hispanic origin.  
<sup>2</sup>Includes persons of unknown Mexican origin.

U.S.-born population to have been hospitalized. However, most of the differences were small, and for some categories, they were not statistically significant—persons 65 years of age and over, females, persons with 12 years of education, and those with family incomes of \$20,000 or more.

The same pattern of differences is found when the comparisons are made between the U.S.-born population and the foreign-born population of Mexican origin, although the differences, because smaller, are statistically significant only for some categories—males, persons with less than 12 years of education, and those with family incomes under \$20,000.

### Physician contacts

Table 6 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 before interview. Six visits is above the average for the U.S. population. Although the differences were not large, foreign-born persons were significantly less likely than U.S.-born persons in most sociodemographic categories shown to have had six physician contacts or more. (Differences were not significant for persons 45 years of age and over.)

Comparing foreign-born persons of Mexican origin with the U.S.-born population, the same general pattern of differences is found, but the differences are larger. Foreign-born persons of Mexican origin were less likely than comparable U.S.-born persons to have had six physician contacts or more, although differences in several additional categories were not statistically significant—45-64 years of

**Table 6. Percent of persons 18 years of age and over who had 6 or more physician contacts in the last year, by age, sex, education, and annual family income, according to birthplace and Hispanic origin: United States, 1985-86**

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualification, and information on the reliability of the estimates are given in Technical notes.]

Characteristic	U.S. born			Foreign born		
	Total <sup>1</sup>	Hispanic		Total <sup>1</sup>	Hispanic	
		Total <sup>2</sup>	Mexican		Total <sup>2</sup>	Mexican
<b>Age</b>						
18 years and over . . . . .	18.5	16.7	16.1	16.2	16.0	12.4
18-44 years. . . . .	15.2	14.7	14.2	12.2	12.1	9.0
45-64 years. . . . .	19.4	20.3	19.3	17.2	20.2	16.0
65 years and over . . . . .	29.1	30.1	33.0	29.2	35.3	40.2
<b>Sex</b>						
Male . . . . .	13.3	10.4	9.7	10.6	9.4	6.7
Female . . . . .	23.1	22.1	21.6	21.2	22.5	19.3
<b>Education</b>						
Less than 12 years . . . . .	23.2	19.4	19.1	19.8	18.1	13.1
12 years. . . . .	17.3	15.3	14.5	14.8	14.4	*9.7
More than 12 years. . . . .	16.8	15.6	14.3	13.4	12.5	*11.5
<b>Annual family income</b>						
Less than \$20,000 . . . . .	21.9	19.2	18.6	18.6	17.9	12.2
\$20,000 or more . . . . .	16.5	14.5	13.6	14.2	13.3	12.0

<sup>1</sup>Includes persons of unknown Hispanic origin.

<sup>2</sup>Includes persons of unknown Mexican origin.

age, females, persons with more than 12 years of education, and those with more than \$20,000 annual family income. There was one reversal of that pattern: Among persons 65 years of age and over, foreign-born persons of Mexican origin were more likely than U.S.-born persons to have had six physician contacts or more.

## References

National Center for Health Statistics, M.G. Kovar, and G.S. Poe. 1985. The National Health Interview Survey Design, 1973-84, and Procedures, 1975-83. *Vital and Health Statistics*. Series 10, No. 18. DHHS Pub. No. (PHS) 85-1320. Public Health Service. Washington: U.S. Government Printing Office.

National Center for Health Statistics, A.J. Moss, and V.L. Parsons. 1986. Current estimates from the National Health Interview Survey, United States, 1985. *Vital and Health Statistics*. Series 10, No. 160. DHHS Pub. No. (PHS) 86-1588. Public Health Service. Washington: U.S. Government Printing Office.

National Center for Health Statistics, D.A. Dawson, and P.F. Adams. 1987. Current estimates from the National Health Interview Survey, United States, 1986. *Vital and Health Statistics*. Series 10, No. 164. DHHS Pub. No. (PHS) 87-1592. Public Health Service. Washington: U.S. Government Printing Office.

U.S. Bureau of the Census. 1980. U.S. Census of Population, Vol. 1, chapter D (PC80)-1-01.

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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
  - # Figure suppressed to comply with confidentiality requirements
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## Technical notes

The estimates shown in this report are based on data obtained in household interviews during a continuing nationwide survey. Each week a probability sample of households is interviewed by personnel of the U.S. Bureau of the Census to obtain information about the health and other characteristics of the civilian noninstitutionalized population of the United States.

During 1985 and 1986, interviews were conducted in 58,682 households containing 153,583 family members and unrelated individuals. The total noninterview rate was about 3.8 percent. The weights of interviewed persons in the segments containing sample households for which data were not obtained were inflated to compensate for household nonresponse.

All persons 17 years of age and over were asked to participate in the interview. When this was not possible, proxy responses were accepted from family members meeting the NHIS respondent rules. 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

$$SE = \sqrt{\frac{3390.8p(1-p)}{y}}$$

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 its first line, and the bases of percents shown in tables 2-6 can be calculated from the data in table 1.

The approximate standard error of a 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 5-percent level if the difference ( $x_1 - x_2$ ) 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 in *Vital and Health Statistics*, Series 10, Nos. 160 and 164, and in Series 1, No. 18 (NCHS, 1985, 1986, 1987).

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NOTE: A list of references follows the text.

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