

MIGRATION & HEALTH

Mexican immigrants in the U.S.



MIGRATION & HEALTH



MEXICAN IMMIGRANTS IN THE U.S.



© Secretaría de Gobernación/Consejo Nacional de Población
Hamburgo 135, Colonia Juárez
C.P. 06600, México, D.F.
Unidad de Política Migratoria
Versalles, 15, 2 piso, Colonia Juárez
C.P. 06600 México, D.F.

Migration and Health. Mexican Immigrants in the United States
First Edition: October, 2013
I.S.B.N:

The reproduction of this document for non-commercial purpose o classroom is allowed,
provided that the source is cited.

Printed in Mexico

INDEX

Aknowledgements / 4

Introduction / 5

Chapter I

Characteristics of Mexican Immigrants in the United States / 7

Chapter II

Access to health insurance and health conditions / 17

Chapter III

Risk factors and health conditions / 43

Chapter IV

Immigrants in California / 59

Conclusions / 67

ACKNOWLEDGMENTS

This report is a result of binational collaboration between Secretariat of Government of Mexico, through National Population Council and Migration Policy Unit, and University of California, through Berkeley and Los Angeles Campus.

Authors

National Population Council (CONAPO)

Telésforo Ramírez, Director of Socio-Economic Studies
and International Migration

Alma Nava, Head of Department of Socio-Economic Studies

Juan Bermúdez Lobera, Assistant of Investigation

Alejandra Reyes Miranda, Consultant

Migratorion Policy Unity (UPM)

Paula Leite, Deputy Director General of Migration Studies Center

Armando Correa, Head of Edition

Luis Felipe Ramos, Investigator

University of California, School of Public Health, Berkeley

Xóchitl Castañeda, Director of Health Initiative of Americas

Emily Felt, Public Policies Analist

University of California, School of Public Health, Los Angeles

Steven P. Wallace, Associate Director of the Center

for Health Policy Research

The analysis for Chapter IV was supported by a grant from The Commonwealth Fund to UCLA

Design

Maricela Márquez, Myrna Muñoz y Virginia Muñoz (CONAPO)

Layout

Maricela Márquez, Myrna Muñoz, Virginia Muñoz, Juan Manuel Guerrero
y Luis Enrique López (CONAPO)

Maritza Moreno

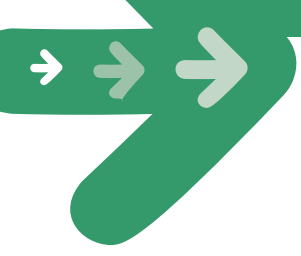
Illustration

Myrna Muñoz (CONAPO)

English Translation

Suzanne Stephens

Andrea Santos, UPM



INTRODUCTION

According to the United Nations Population Division, in 2010 there were 214 million international migrants world-wide, ranging from highly trained individuals in specialized professions to low-wage unskilled workers.

In most cases, people migrate in search of opportunities to improve their wellbeing or life situation, acting on their dreams and ambitions. This has historically been the case for migrants to the United States, a country characterized by immigration in search of the *American Dream*. The U.S. has been a primary destination for migrants from around the world since its founding as a nation; however, the profile and country of origin of migrants have changed over time. As recently as the 1970s, two-thirds of immigrants living in the U.S. were of European origin. Currently, about half of immigrants in the U.S. are of Latin American or Caribbean origin. Among this group, Mexican immigrants (nearly 12 million people) are the most common, making up 28% of the total immigrant population of the country. If the all the descendents of Mexican immigrants are included, a total of 33 million people of Mexican origin are living in the United States as of 2012.

Today, Latino and particularly Mexican migration is of primary importance both economically and socially. Mexican immigration helps to offset the demographic aging of the U.S. population, keeping a larger proportion of the population in prime working ages compared to most other wealthy industrialized nations. The impact is felt throughout the country since Mexicans are among the top five immigrant groups in 43 states. In nine states, Mexicans make up more than 40 percent of the immigrant population, and up to nearly 60 percent in states such as Arizona, New Mexico and Texas. This population is made up

predominantly of adults between 18 and 64 years old and contributes to the country economically through work and consumption and socially through culture and community life. Through work, they also pay taxes programs that benefit all Americans, including Social Security and Medicare.

Despite these significant contributions, Mexican immigrants in the U.S. are poorly integrated and face high levels of social exclusion, with many not benefiting from existing health and social protection programs. Mexican immigrants' naturalization rates are far below those of other immigrant groups, and they are more likely to have low incomes, live in poverty, and many among their ranks are undocumented. These social characteristics contribute to their lack of health insurance and access to care, and have negative consequences for their health in terms of chronic disease and overall wellbeing.

This report examines the health services implications of the social integration of Mexican immigrants in the United States, with special emphasis on the impact of the health system for nonelderly adults where access is heavily shaped by private insurance that is largely obtained through employment. Chapter I presents general trends in the Mexican immigration to the U.S., including the demographic profile of Mexican immigrants as well as their workforce participation, naturalization status, and the relationship between social determinants of health and their inclusion in the health system.

Chapter II analyzes the access to care and type of health care coverage of Mexican immigrants, documenting the variation by socio-demographic and immigration characteristics. It also highlights the economic,



cultural and institutional obstacles that prevent them from receiving medical attention and health services. Chapter III identifies differences among population groups—native-born whites, those born in Mexico, and other immigrant populations—in terms of health risks, health prevention and health conditions.

Chapter IV presents California as a relevant case study, as the state where the largest part of the Mexican immigrant population is concentrated. It is also the state that houses the greatest proportion of the undocumented population (23%). The chapter presents statistics concerning health insurance and health service utilization of the Mexican immigrant population in California based on the California Health Interview Survey, offering an in-depth analysis of health issues based on migrant and naturalization status.

This report aims to inform scholars, policy makers, the media, and the general population about the specific health concerns of Mexican immigrants in the U.S., and to publicize the policies that have been designed to improve their health and quality of life. This report was made possible through a binational effort led by the Mexican Secretariat of Government,

through the National Population Council (CONAPO, by its Spanish acronym), and the Migration Policy Bureau, in collaboration with the University of California at Berkeley—through the Health Initiative of the Americas, a program of the School of Public Health—and the Center for Health Policy Research of the University of California at Los Angeles.

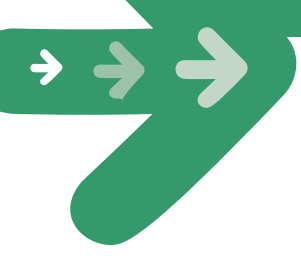
Finally, this report offers conclusions and recommendations that can contribute to improving the health and social inclusion of the Mexican immigrant population in the U.S. The importance of the Mexican immigrants and population of Mexican origin in the U.S. demands a better understanding of their status and the implications for health and wellbeing. As with all immigrant issues, binational collaboration is not only key to social change, but is also a responsibility of both countries. With demographic change rapidly transforming the American landscape, improving the health of immigrants and especially Mexicans is crucial to preparing the way for good population health in the future.

We hope this report will stimulate binational dialogue and encourage shared decision making.

Patricia Chemor
Secretary General of the
National Population Council

Xochitl Castañeda
Director of the Health Initiative
of the Americas, School of Public Health,
University of California at Berkeley

Omar de la Torre de la Mora
Head of the Migration Policy Bureau,
Secretariat of Government



CHAPTER I

CHARACTERISTICS OF MEXICAN IMMIGRANTS IN THE UNITED STATES

INTRODUCTION

This chapter provides an overview of the volume, trends and characteristics of the Mexican population living in the United States. It presents data describing their socio-demographic profile, naturalization rates, participation in the labor market and income, in order to analyze some of the social determinants of health associated with their epidemiological profile, health status, behavior regarding the health system and access to medical services.

Since race, ethnicity, and immigration status are the basis for many social inequities in the United States, this report adopts a comparative perspective on the Mexican population compared to the U.S.-born population (both white and African-American) and other immigrant groups (Central Americans and immigrants from other world regions). The analysis is based on data compiled by the *Current Population Survey* (CPS) and the *American Community Survey* (ACS).

TRENDS AND SCOPE

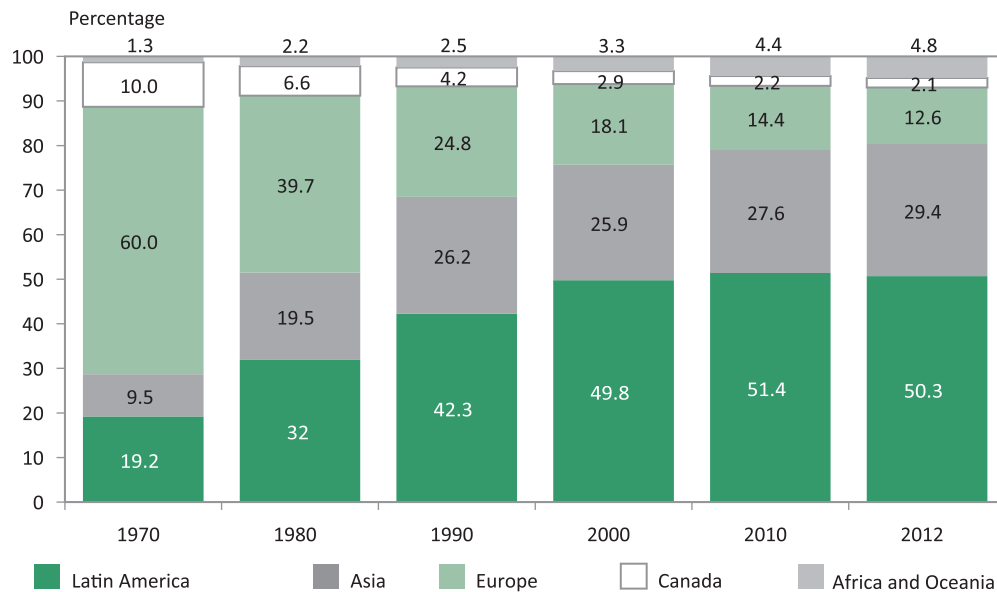
Mexicans: the largest immigrant group in the United States

The history of the United States is inextricably linked to immigration. The countries of origin of immigrants, however, have changed over time. At present, the main migration flows are from Latin American and Caribbean countries that are geographically closest to the United States. Whereas in 1970, two-thirds of all the immigrants in the country were of European origin, three decades later in 2000 nearly half of all of the foreign-born (50%) were originally from Latin America and the Caribbean (figure 1). In this context, Mexico has remained by far the largest source of immigrants to the United States. It is estimated that in 2012, 11.9 million persons who were born in Mexico were living in the United States. Including all those of Mexican ancestry, the Mexican-origin population totaled 33.7 million that year. Of these, 21.8 million were U.S. born (11.4 million second generation and 10.4 million third generation or more).

The 11.9 million Mexicans living in the United States in 2012 account for about 4% of the total population in the country and 28% of the immigrant population. These figures make Mexico the country with the largest number of nationals living in the United States, with similar figures to those from all of Asia (29%) and ahead of other major world regions, such as the rest of Latin America and the Caribbean (22%) and Europe (figure 2).

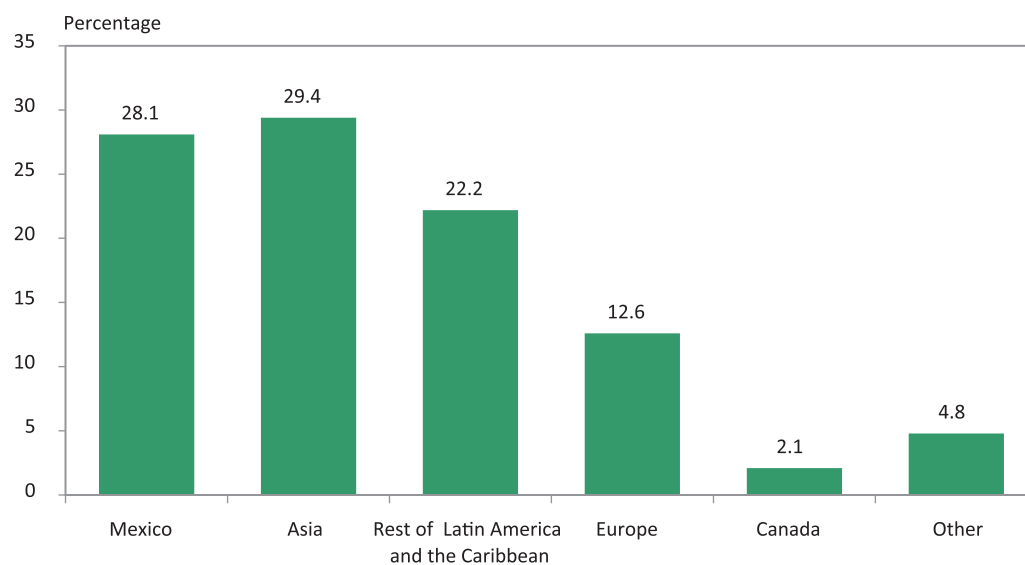


Figure 1. Immigrant Population in the United States, by region or country of birth, 1970-2012



Source: CONAPO estimates, based on U.S. Census Bureau, *Census* 1970, 1980, 1990, 2000; *American Community Survey* (ACS), 2010; and *Current Population Survey* (CPS), march 2012.

Figure 2. Distribution of immigrant population resident in the United States, by region or country of birth, 2012



Source: CONAPO estimates, based on U.S. Census Bureau, *Current Population Survey* (CPS), march 2012.



GEOGRAPHIC SPREAD OF MEXICAN IMMIGRATION

The predominance of Mexicans in the immigrant population is documented virtually throughout the United States

The growing intensity of Mexican migration to the United States has made their presence more visible in most of the country. Directly related to the growing numbers of Mexican migrants in recent decades, Mexican migration has spread across the United States. While California and Texas continue to absorb the largest proportion of Mexicans (37.3% and 22% respectively), migratory flows exhibit a gradual change over time, as a result of which Mexicans were among the five most numerous immigrant groups in 43 American states in 2012.

It is worth noting the states where Mexicans account for a high proportion of the immigrant population. As can be seen from map 1, Mexicans account for over 40% of the immigrant population in nine states, which continues to be surprising considering that it is a single national group compared with the set of all the others. In Arizona, New Mexico and Texas, the Mexican population accounts for 62%, 59% and 57% of the total immigrants.

Nine out of ten Mexican immigrants reside in the urban centers of the United States, and only one-tenth in non-urban areas. The metropolitan areas with the highest number of Mexicans are Los Angeles-Long Beach-Santa Ana (1.8 millions) in California, Dallas-Fort Worth-Arlington (736 thousands) in Texas, Chicago-Naperville-Joliet (652 thousands) in Illinois, Houston-Baytown-Sugar Land (620 thousands) in Texas and Riverside-San Bernardino (554 thousands), in California.

The Mexican immigrant population resident in the United States is concentrated in working ages

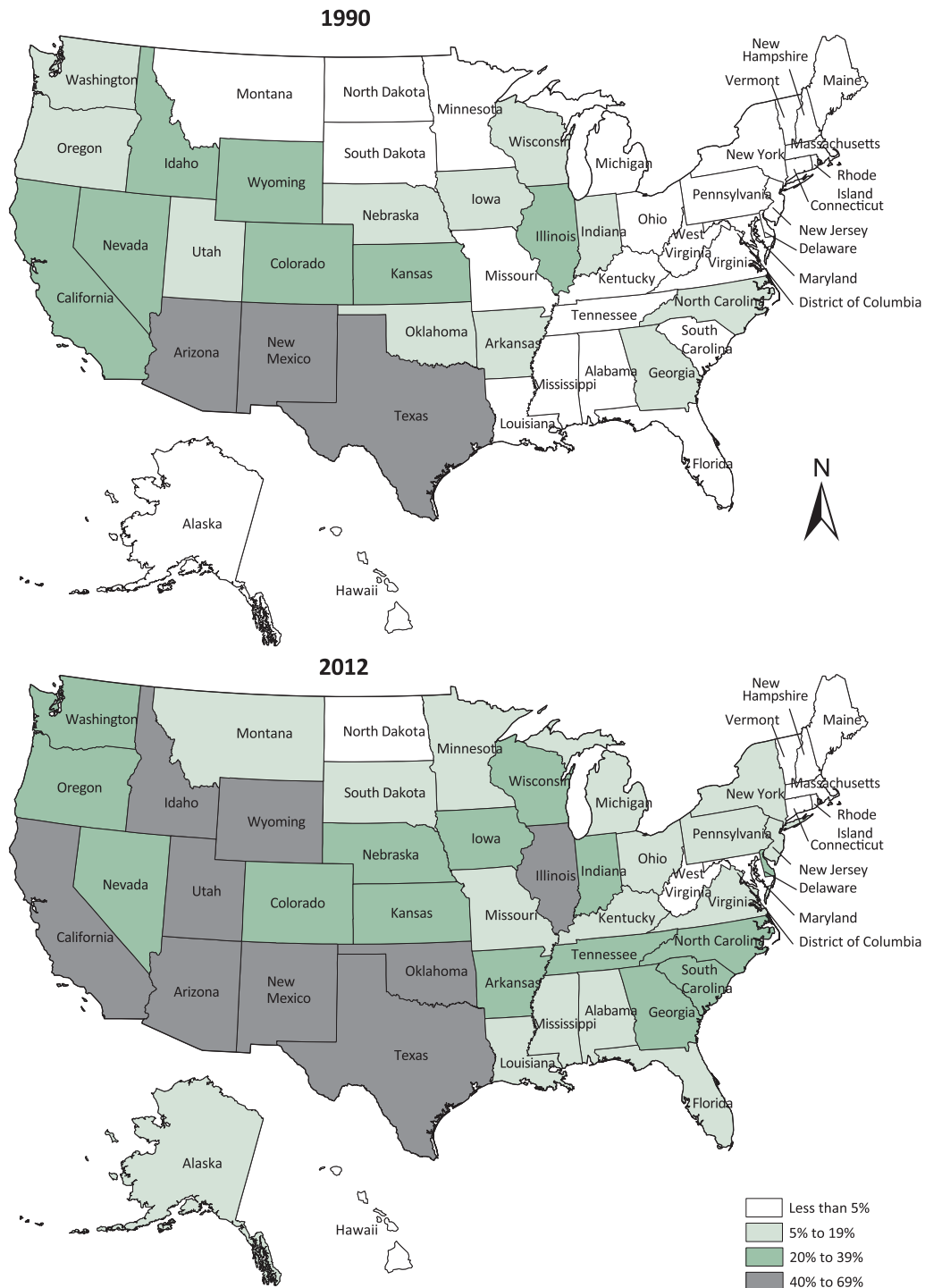
Migration mainly involves young adults, with little migration at either end of the age spectrum. There are sharp differences between the age structures of immigrant populations living in the United States and the U.S.-born populations. Immigrants' age composition is characterized by a large concentration in the intermediate ages of the pyramid. This is particularly noticeable among the Mexican and Central American populations, where the 18-64 age group accounts for 87% of the respective migrant populations (mostly concentrated in the ages between 18 and 44). The low percentage of the population over this age is closely linked to the relatively recent nature of permanent Latin American immigration in the U.S. (figure 3).

In contrast, two out of every three U.S.-born whites and African-Americans are nonelderly adults (63 and 61%, respectively), while the young and elderly, those under 18 (21 and 30%) and 65 and older (17 and 9%), together comprise the remaining third.

It is important to emphasize the fact that the demographic structures of the different populations have varying impacts on the social security and health systems. The ratio between the economically active and inactive members of immigrant populations (particularly Mexicans and Central Americans) is more favorable in terms of the transfers made to Social Security and Medicare than among the U.S.-born white or African American population, where this ratio is lower, given the relative importance of persons under 18 and senior citizens who require a greater financial effort by the state to provide social security.



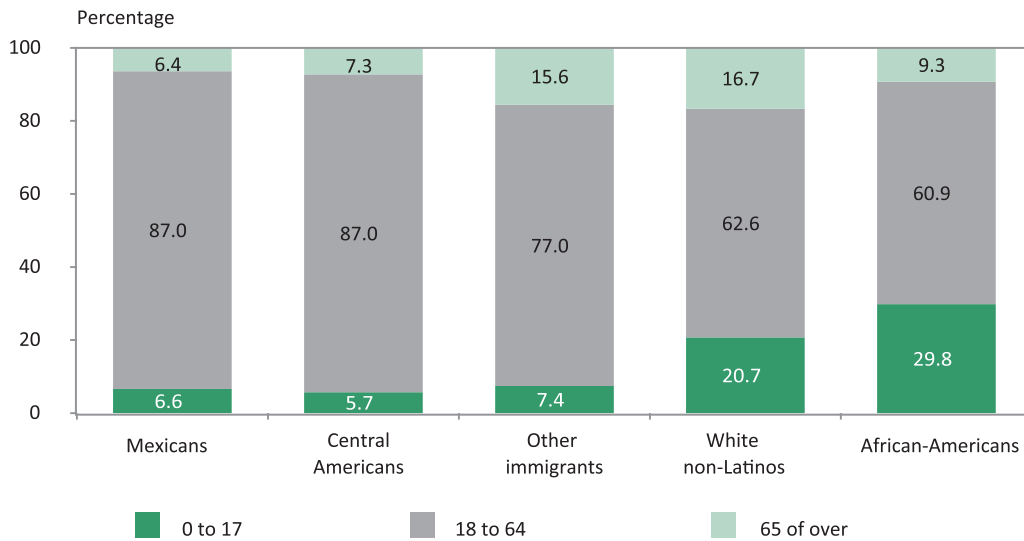
Map 1. Proportion of Mexicans of total immigrants, 1990 and 2012



Source: Developed by CONAPO based on the U.S. Census Bureau, *percent samples 1990 and Current Population Survey (CPS)*, march 2012.



Figure 3. Population resident in the United States by age group, by region of origin and ethnicity or race, 2012



Source: CONAPO estimates, based on U.S. Census Bureau, *Current Population Survey (CPS)*, march 2012.

Mexican migration has contributed to delaying the demographic aging of the United States

The demographic aging process in the United States is the result of a drop in the birth rate, especially of non-Hispanic whites, and an increase in life expectancy. Fewer children being born and more older adults results in a rising average age of the population. While immigration alone cannot reverse this trend, it has slowed the pace of demographic aging in the United States and increased the number of the working age population. In particular, the population of Mexican origin (Mexican immigrants and their descendants) has contributed to increasing the absolute number of both working age adults and their children. Unlike in several other OECD developed countries where the proportion of the population is already over 20%, the proportion of elderly and the average age of the population in the U.S. remain comparatively young. The Mexican origin

population across all generations ages 0-17 increased by 3.1 million between 2002 and 2012, while the U.S.-born white population of that age declined by 4.2 million during the same period (Table 1). If it had not been for the Mexican immigration, the total population of the country under 18 years of age would have decreased in size over the past ten years, and the United States would be undergoing a more rapidly aging process. Moreover, the Mexican origin population has accounted for just over 30% of the total growth of the working age population during the same period (5.1 million), while the U.S.-born white population has only increased by 19% in the 18-64 year old age range.

Delaying population aging of the United States will allow it more time to prepare for the significant challenges of an economic, labor, social and political order resulting from an increasingly elderly population, particularly as regards the deterioration of the ratio between working and retired members of society and its impact on public programs.



Table 1. Absolute growth of population resident in the United States, by age group and region of origin and ethnicity or race, 2002-2012

	Total	Mexican-born	Second generation ¹	Third generation ²	Other immigrants	White non-Latinos	African-Americans	Other
Absolute difference	26,745,290	1,977,291	3,678,157	3,506,414	6,676,840	4,604,507	2,323,356	3,978,725
0-17 years	1,480,282	-431,887	1,598,498	1,961,247	-6,865	-4,166,911	-786,037	3,312,237
18-64 years	17,528,534	2,058,326	2,027,120	1,355,032	5,232,227	3,268,354	2,491,433	1,096,042
65 years or over	7,736,474	350,852	52,539	190,135	1,451,478	5,503,064	617,960	-429,554
Contribution to growth (2002-2012)	100	7.4	13.8	13.1	25.0	17.2	8.7	14.9
0-17 years	100	-29.2	108.0	132.5	-0.5	-281.5	-53.1	223.8
18-64 years	100	11.7	11.6	7.7	29.8	18.6	14.2	6.3
65 years or over	100	4.5	0.7	2.5	18.8	71.1	8.0	-5.6

Note: 1 / Second generation in the United States: Population resident in the American Union, not born in Mexico with one Mexican-born parent.

2/ Third generation or more in the United States: Population resident in the United States, not born in Mexico, whose parents were not born in Mexico either, but who declared they were of Mexican origin (Mexican-American, Chicano or Mexican).

Source: CONAPO estimates, based on U.S. Census Bureau, *Current Population Survey (CPS)*, march 2002 and 2012.

IMMIGRATION STATUS

Mexican immigrants' immigration status adversely affects their integration into U.S. society

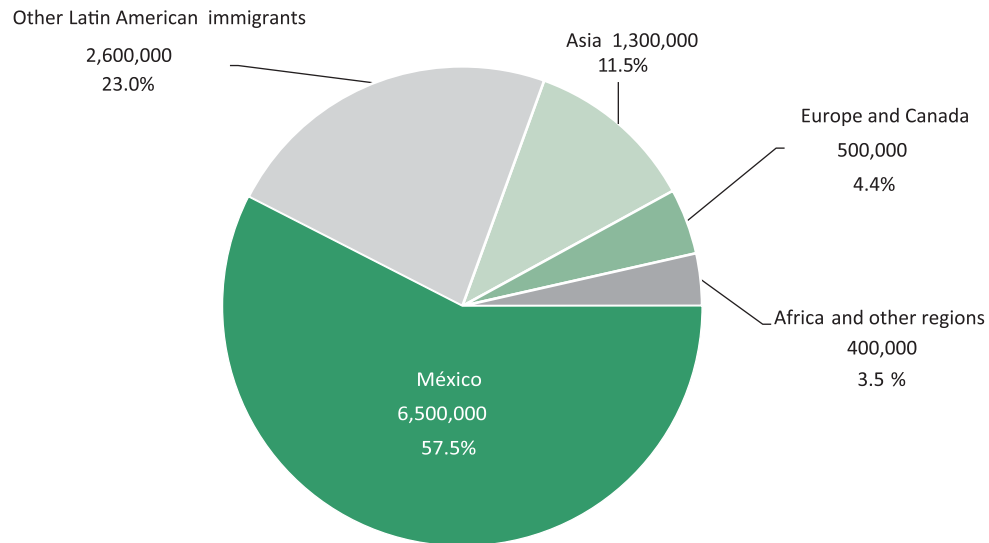
According to estimates by the Pew Hispanic Center, the number of undocumented Mexicans in the United States significantly increased from 2000 until the great recession. In 2000, it was estimated that a total of 4.6 million undocumented Mexicans lived in the country and that despite tougher border controls in subsequent years, figures continued to increase to seven million by 2007. Since that year, their numbers have decreased (to 6.5 million in 2010), suggesting that Mexican migration responds to job opportunities in the United States (rather than to political restrictions and border controls). The significant reduction in the demand for low skilled labor in the aftermath of the economic crisis of 2008 is widely attributed to causing the corresponding reduction in undocumented migration flows. Undocumented Mexicans accounted for an estimated 58% of the total undocumented population and 56% of all Mexicans in the country in 2010 (figure 4).

U.S. citizenship is a key factor determining access to rights and economic and social benefits. The data show that people born in Mexico have much lower naturalization rates than other immigrant groups. Just over one in four Mexican immigrants is a U.S. citizen (28%). This proportion is higher among Central American immigrants (32%) and more than double among immigrants from other regions. Mexican immigrants who entered the country in the past ten years, classified as “recent arrivals” have noticeably low naturalization rates (9.7%) (figure 5).

These differences extend to the household level. Only 23% of households headed by Mexican immigrants are comprised entirely of citizens (as opposed to 52% in households headed by other immigrants), whereas in 17% of Mexican immigrant headed households, none of the members is a citizen. Most Mexican immigrant headed households are comprised of persons both with and without citizenship (59%), called mixed status families. Different family members therefore have different rights, meaning that they are not subject to the same risks and vulnerabilities. Most of these cases result from the non-citizen status of the head of household and the citizen status of one of his or her children, by virtue of being born on US soil (Figure 6).

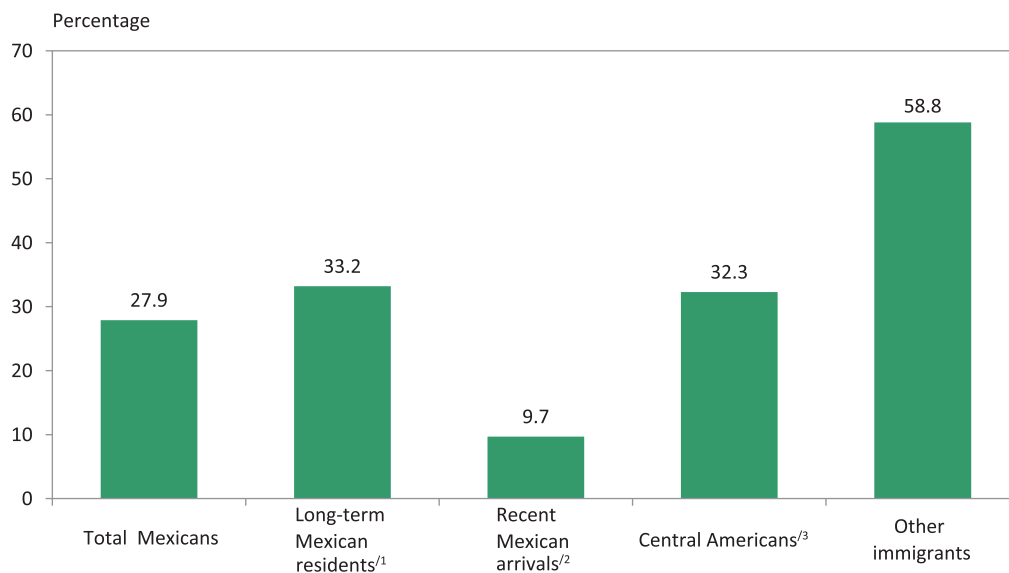


Figure 4. Undocumented immigrant population in the United States, by region of origin, 2010



Source: PASSEL, Jeffrey S. and D'Vera Cohn (Feb, 2011). *Unauthorized Immigrant Population: National and State Trends, 2010*, Pew Hispanic Center. Pew Research Center.

Figure 5. Immigrant population resident in the United States with U.S. citizenship, by country or region of origin, 2012



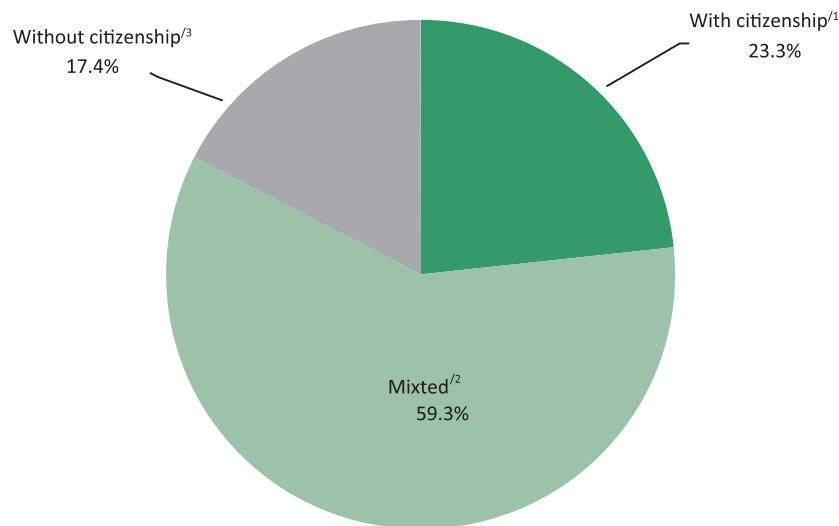
Notes: 1/ ≥ 10 years in the United States.

2/ < 10 years in the United States.

3/ Includes: Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama.

Source: CONAPO estimates, based on U.S. Census Bureau, *Current Population Survey (CPS)*, march 2012.

Figure 6. Households headed by Mexican immigrants in the United States, by citizenship status of their members, 2012



Notes: 1/ All household members are U.S. citizens.

2/ At least one member of the household is a U.S. citizen.

3/ None of the household members is a U.S. citizen.

Source: CONAPO estimates, based on U.S. Census Bureau, *Current Population Survey (CPS)*, march 2012.

The high rates of undocumented status and limited access to citizenship of the Mexican population in the United States are critical obstacles to integrating into American society as well as restricting access to health insurance.

EMPLOYMENT AND POVERTY

Mexican immigrants play a key role in the U.S. economy

Mexican emigration to the United States is strongly influenced by the sharp contrasts in wages and employment between the two countries. Once in the United States, Mexican immigrants report high levels of participation in economic activity (73%), slightly lower than those of Central Americans (78%), other groups of immigrants (74%) and U.S.-born non-Hispanics (75%), but higher than those of African-Americans (66%).

Mexicans tend to be concentrated in low-paid manual jobs

Mexican immigrants are characterized by engaging in mostly low-paying occupations, which results in a similar employability profile to that of immigrants from Central America, but a very different one from immigrants of other nationalities and the U.S.-born, white, non-Hispanic population. Factors such as the high rate of undocumented status, the low level of human capital (57% has not a high school degree) and stereotypes regarding the Mexican work ethos largely determine their concentration in occupations at the base of the occupational pyramid (see table 2).

Occupations in unskilled services, agriculture and construction, accounted for about 61% of recently-arrived Mexican workers in the country and 47% of their longer-term counterparts. These data contrast with those of both other Latin American immigrants and the white U.S.-born non-Hispanic population, who

**Table 2. Distribution of the population by place of origin and ethnicity or race, by type of main occupation, 2012**

Occupation	Total Mexicans	Recently- arrived Mexicans ^{1/}	Long-term Mexican residents ^{2/}	Central Americans	Other immigrants	White non- Latinos	African Americans
Total^{3/}	100	100	100	100	100	100	100
Executives, professionals and technicians	8.7	6.6	9.6	12.3	41.6	42.0	29.5
Semi-skilled service workers	1.6	0.5	2.2	1.8	4.6	4.3	9.3
Sales, administrative support and office work	11.9	9.3	13.1	12.1	20.1	24.1	25.5
Unskilled service workers	31.1	35.4	29.0	36.6	16.0	10.2	16.4
Workers and specialized workers ^{4/}	26.5	22.6	28.4	22.0	14.2	14.6	16.7
Excludes construction workers	15.8	19.9	13.8	13.4	3.2	4.4	2.4
Farmers and agricultural workers	4.4	5.7	3.9	1.8	0.2	0.5	0.3

Notes: 1/ < 10 years in the United States.

2/ ≥ 10 years in the United States.

3/ Excludes armed forces employees and those in unspecified occupations.

4/ Excludes construction workers.

Source: CONAPO estimates, based on *Current Population Survey (CPS)*, march 2012.

have a greater presence in executive, professional and technical jobs (41 and 42%, respectively).

The low participation of Mexican immigrants in the most highly paid jobs in the occupational pyramid is particularly noticeable among those who have recently entered the country (7%) compared with the group consisting of “other immigrants” and the U.S.-born non-Hispanic white population. These figures clearly document the existence of a segmented immigrant labor market, in which Mexican and Central American workers tend to meet the demand for low-paid work, while immigrants from other regions are concentrated in areas with higher wages and benefits.

These different patterns of employment correlate with different probabilities of having health insurance coverage, since this depends largely on benefits provided by employers and is not usually included in lower-paying occupations.

*Nearly half of all immigrants
with low-income status are Mexican*

The high degree of marginalization and socio-economic exclusion of the Mexican immigrant population in the United States correlates with the low income they receive for their work. About one in every two Mexi-

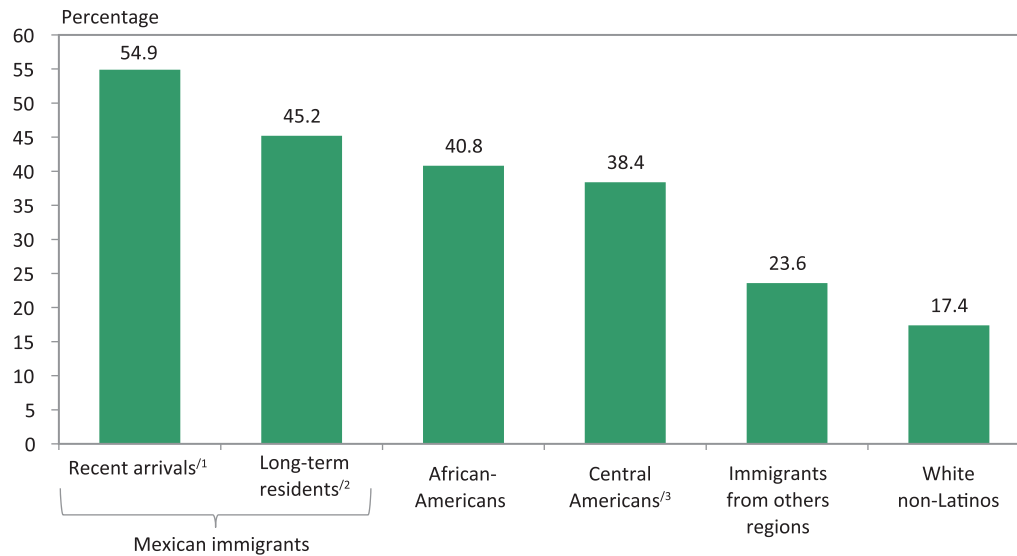
cans lives in poverty (48%), a rate that exceeds that of Central American migrants (38%) and above all, those from other regions (24%). At the same time, the proportion of the U.S.-born white non-Hispanic population in this condition is relatively low (17%), while the figure for African-Americans is slightly lower than that of Mexicans (41%). It should be noted that these rates improve among longer-term Mexican migrants, although they are still alarming (45%) (figure 7).

The data show that a total of 5.6 million Mexicans living in the United States live in low-income families, accounting for 7% of the total population in this situation. The incidence of low income levels among the Mexican population is particularly evident if one only considers the universe of immigrants in the United States: almost half the immigrants with low incomes are Mexican-born (49%).

In short, the data in this chapter show that Mexicans, who comprise the largest, most geographically widespread national group of immigrants share a number of features, such as their relatively low human capital, their high percentage of lack of documentation and limited access to citizenship, which determine their concentration in occupations with lower compensation, both monetary and in terms of benefits.



Table 7. Low-income* population resident in the United States, by region of origin and ethnicity or race, 2012



Notes: * Income below 150% of the federal poverty line in the United States.

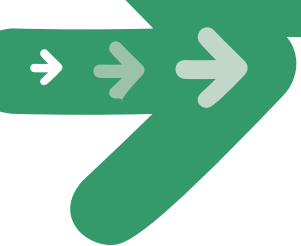
1/ < 10 years in the United States.

2/ ≥ 10 years in the United States.

3/ Includes: Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama.

Source: CONAPO estimates, based on U.S. Census Bureau, *Current Population Survey (CPS)*, march 2012.

Mexican population makes contributions of great relevance to American society, not only in the economic field –such as its response to structural demand for Mexican workers in the labor market and its role to increase productivity of the sectors in which it is employed– but also in terms of the richness it brings to the country’s cultural diversity, not to mention the significant effect that migration has in order to reduce pressures of aging and demographic dependency. Nevertheless, this group is affected by extremely unfavorable processes of social and labor integration, with high rates of exclusion, marginalization and poverty, which also impacts the next generation.



CHAPTER II

ACCESS TO HEALTH INSURANCE AND HEALTH CONDITIONS

INTRODUCTION

Mexican immigrants face major obstacles that threaten their physical and emotional health, from the time they leave their place of origin, during transit and while crossing the border. Once in the United States, they face enormous difficulties in accessing medical care and obtaining needed public and employment benefits, including health insurance, particularly in the case of undocumented migrants.

The U.S. healthcare system is based primarily on private health insurance, most of which is obtained through personal or family employment. Public health insurance is designed for low-income people and families who meet certain eligibility criteria (e.g. Medicaid), as well as for almost all older adults (Medicare). Since many employers fail to offer health insurance and Medicaid eligibility rules are usually very strict, a significant sector of the population, both U.S.-born and immigrant, have no health insurance coverage.¹

This chapter analyzes information related to access to and use of medical services and health conditions among recent Mexican immigrants in the United States, from a comparative perspective with the U.S.-born population and other immigrants. The analysis is based on data compiled by the *Current Population*

Survey (cps), the *American Community Survey (ACS)*, the *National Health Interview Survey (NHIS)* and the *National Healthcare Disparities Report*.

The paper is organized into three main sections. It begins by analyzing the type of access and health coverage of Mexican immigrants in the United States by various sociodemographic and migration characteristics. It then examines access to health services among the Mexican immigrant population in the country, highlighting some of the economic, cultural and institutional obstacles faced in order to receive timely health care.

COVERAGE AND TYPE OF HEALTH INSURANCE

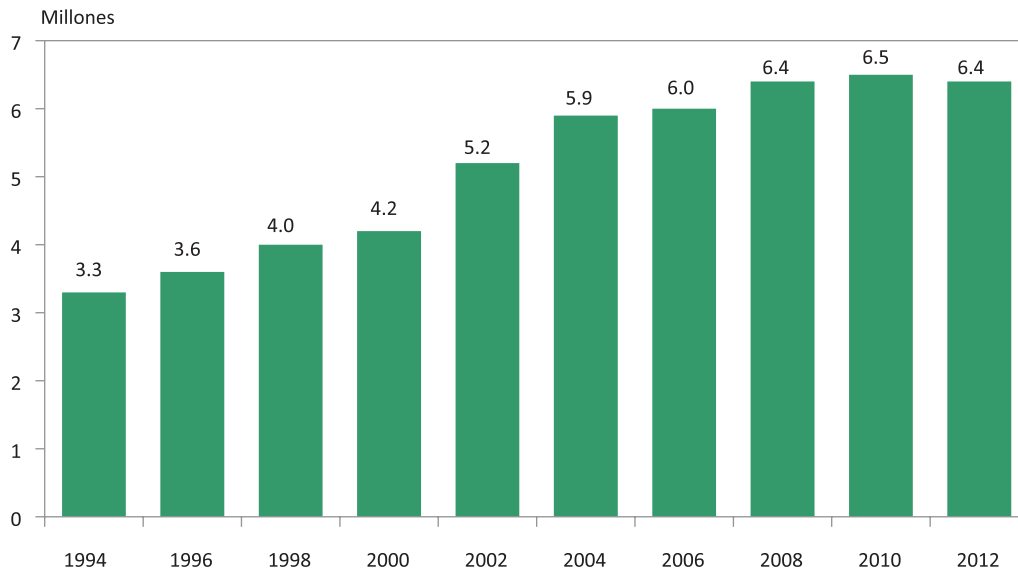
Approximately 6.4 million Mexican immigrants in the United States are uninsured

Mexican immigrants encounter several barriers to obtaining medical services in the United States, which negatively affects their physical and emotional health since uninsurance restricts their access to a wide range of health, prevention, diagnostic and treatment services and rehabilitation from diseases. According to cps data, the number of uninsured Mexican immigrants almost doubled between 1994 and 2012, from 3.3 to 6.4 million, mirroring the increase in the volume of Mexican immigrant population in the United States (figure 8). However, between 2008 and 2012, it remained stable, partly as a result of the decrease in migration flows due to the economic crisis of 2008, which was also reflected in the stagnation of the size of the Mexican immigrant population in the country.

¹ The U.S. health care reform's coverage expansion scheduled to start in 2014 under the Affordable Care Act will expand Medicaid coverage in some states and offer subsidized insurance to others, but it is estimated that 26 million, or almost 10% of the U.S. population, will remain uninsured even after the expansion. Genevieve M. Kenney, Michael Huntress, Matthew Buettgens, Victoria Lynch and Dean Resnick, *State and Local Coverage Changes Under Full Implementation of the Affordable Care Act*, Menlo Park, Kaiser Family Foundation, Publication 8443 (<http://kff.org/health-reform/report/state-and-local-coverage-changes-under-full-implementation-of-the-affordable-care-act/>).



Figure 8. Uninsured Mexican immigrant population in the United States, 1994-2012



Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement, 1994, 1996, 1998, 2000, 2002, 2004, 2008, 2010 and 2012.

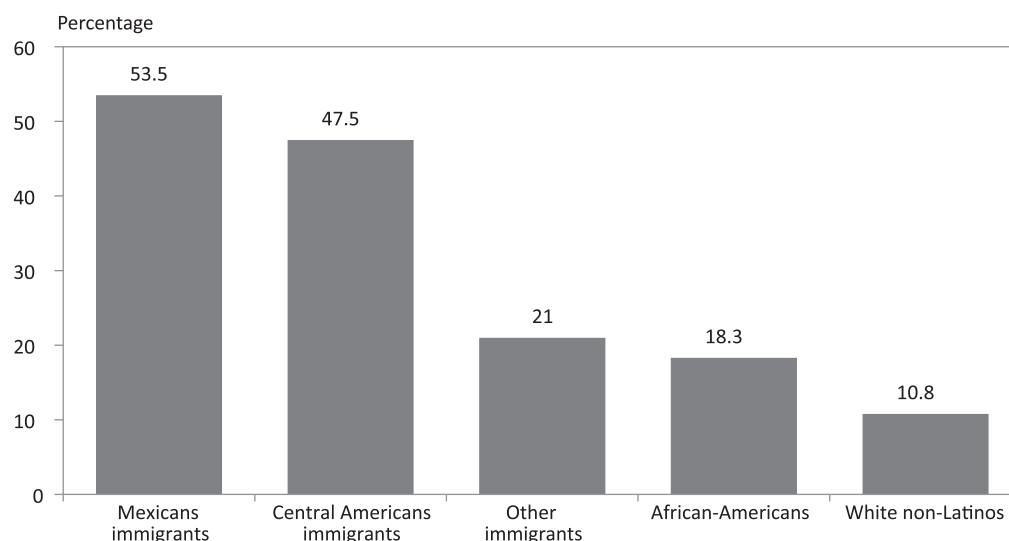
The degree of exclusion of the Mexican immigrant population from the American health care system becomes more evident if one considers that although they only constitute four percent of the total population living in the country, they account for about 13% of the total uninsured population. In 2012, approximately 53% of Mexican-born immigrants living in the U.S. lacked any type of health coverage. This figure is far higher than that recorded by white non-Latinos (11%), African-Americans (18%) and immigrants from other countries and world regions, including Central America, who reported slightly more favorable health coverage than Mexicans (47%) (figure 9). These data corroborate the existence of a pattern of inequality in access to health services in the United States that corresponds to ethnic and racial origin and place of origin, in which immigrants from certain Latin American countries are the most vulnerable population groups.

Uninsurance is higher among Mexican immigrants than among other groups of immigrants from all the world living in the United States

An analysis of the percentage of immigrants from Mexico and other Latin American countries that do not have health coverage shows that those born in Honduras and El Salvador have a rate of uninsurance of about 50%, very similar to that of Mexicans (53%), while among immigrants from Guatemala and Nicaragua the rate is close to 40%. Rates for Ecuadorians and Colombians were 36% and 30%, respectively (figure 10).

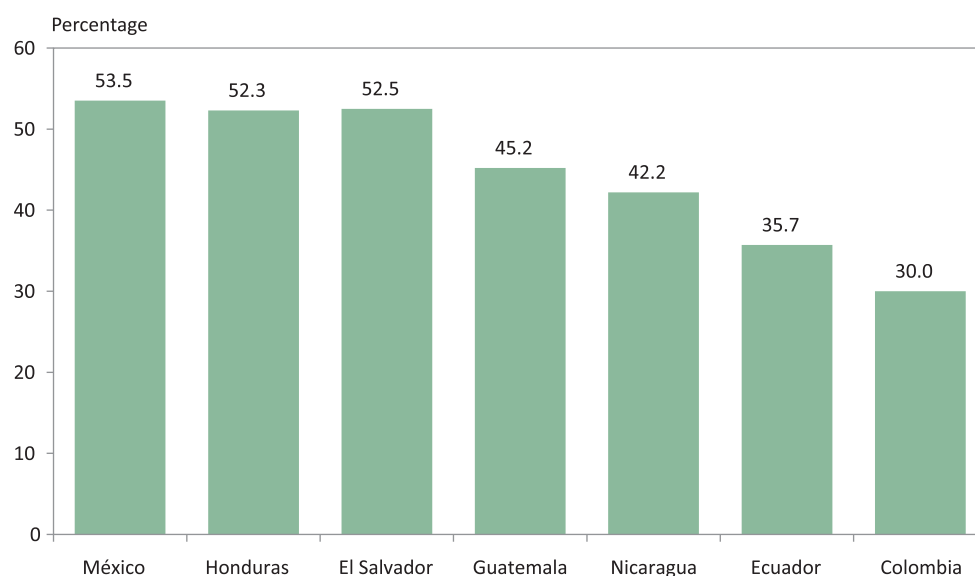


Table 9. Uninsured population in the United States, by region of origin and ethnicity or race, 2012



Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 2012.

Figure 10. Uninsured Mexican and other Latin American immigrants in the United States, 2012



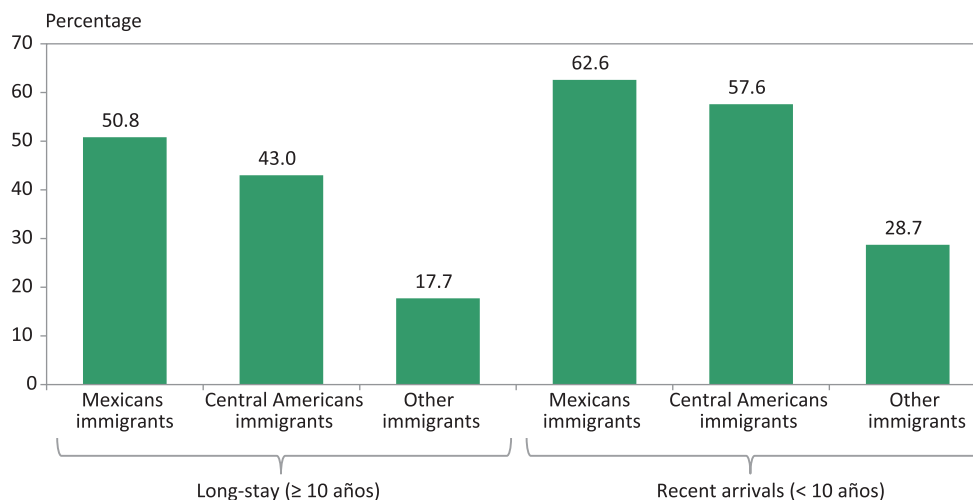
Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 1994, 1996, 1998, 2000, 2002, 2004, 2008, 2010 and 2012.



The situation is even more dramatic among Mexican and Central American immigrants who have recently arrived in the United States, in other words, among those with fewer than ten years' residence in the country. Among Mexicans, just over six out of ten do not have public or private health insurance (63%). This situation affects just over four out of every ten recent Central American immigrants. Conversely, among Mexicans and Central Americans with over ten years of residence, uninsurance rates decrease to 51% and

43%, respectively (figure 11). Although in both cases data show that length of residence in the United States is a factor that positively affects health insurance coverage, Mexican-born residents still report higher levels of vulnerability than Central Americans and other immigrants. This result is most likely related to the high rates of undocumented status characterizing a large segment of the Mexican immigrant population, including long-stay residents.

Figure 11. Uninsured immigrant population by year of arrival in the United States, 2012



Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 2012.

Uninsurance is more common among immigrants without U.S. citizenship

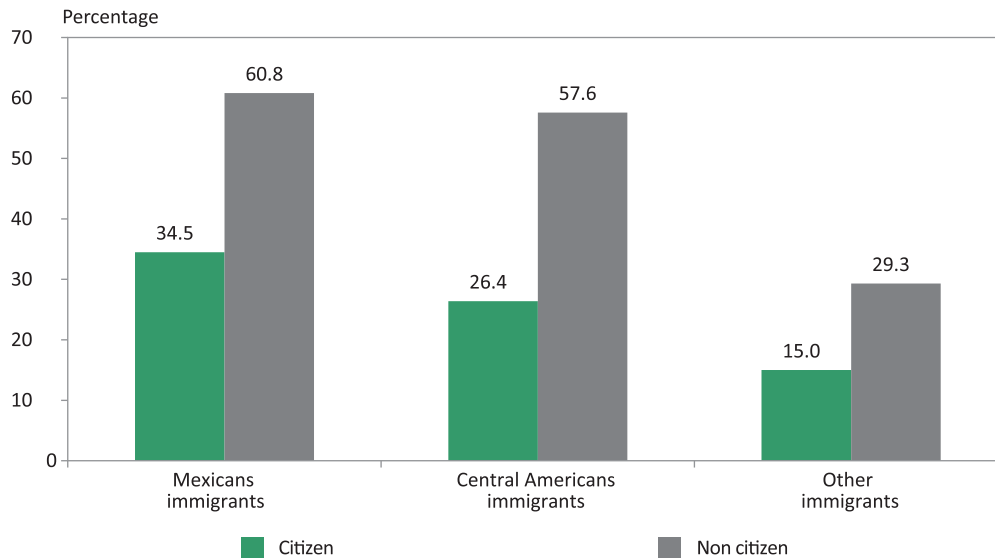
An analysis of the distribution of the Mexican immigrant population without health insurance by U.S. citizenship status shows that among Mexican immigrants who have not obtained citizenship, 61% are uninsured, a similar proportion to that observed among the Central American population who are not citizens (58%). Figure 12 also shows that despite having similar citizenship status, Mexican-born immigrants who have naturalized have higher rates of uninsurance than other immigrants,

including Central Americans and other immigrants: 34%, 26% and 15%, respectively.

These results show that Mexican immigrants are the most vulnerable group in terms of access to health insurance, placing them in a position of high risk and vulnerability, since uninsurance means that they are likely to face high financial barriers to needed health care when they are injured or become seriously ill. Indeed, lack of access to preventive and curative health services, coupled with the change in lifestyle and working conditions of immigrants, negatively impacts their physical and emotional health.



Figure 12. Uninsured immigrant population by U.S. citizenship status, 2012



Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 2012.

Men are less likely to have health insurance

In general, men are more likely to be uninsured, with the gender difference greatest among Mexican and Central American immigrants (figure 13). Nevertheless, uninsurance levels among Mexican and Central American women are still significantly higher (51% and 42%, respectively) than that of their peers from other countries of the world (20%), African-Americans (17%) white non-Latinos (10%). These figures confirm the results of other research that finds that Mexicans are the most unprotected group in terms of health coverage.

Mexicans' disadvantaged position in health insurance coverage occurs throughout all age groups

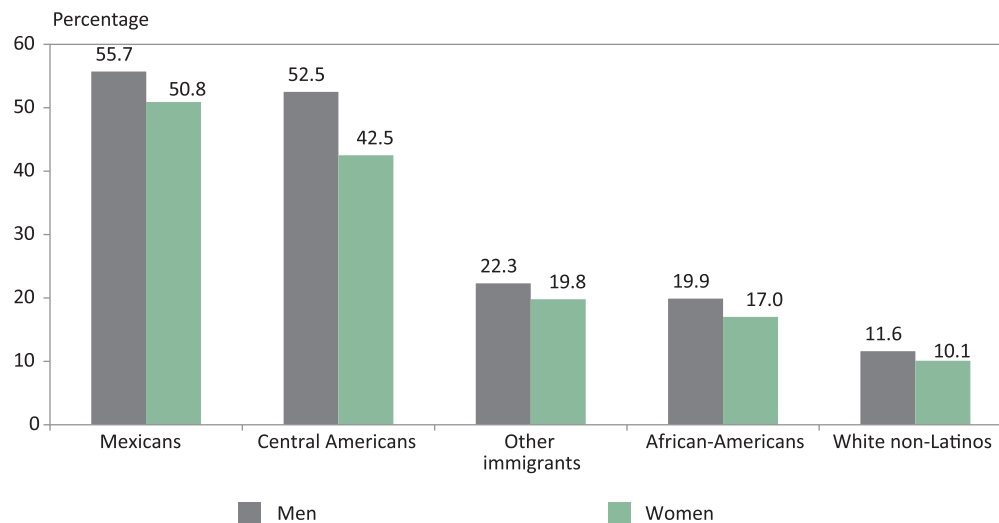
An analysis of health insurance coverage by age group documents Mexicans' disadvantaged position at all stages of the life cycle. Among those under 18, the percentage of uninsured Mexican immigrants (44%) is much higher than that of Central American children (25%) and three times that of children born in other countries and world regions (15%). Conversely, these

figures total seven and ten percent among white non-Latinos and African-Americans. These data show that a significant proportion of Mexican-born children and teenagers have a very weak link with the U.S. health system and are therefore more at risk of not having timely check-ups or medical care.

The disadvantaged situation of Mexicans is even more pronounced among the nonelderly adult population group, in other words, those between 18 and 64 years, where uninsurance rates reach 57%. This figure is similar to that recorded by Central Americans (52%), but higher than that of immigrants from the rest of the world (25%) and African-Americans (25%). However, this situation is less dramatic in the case of white non-Latinos, among whom only 15% are uninsured. Moreover, a significant percentage of the Mexican population aged 65 or over (14%) do not have health insurance to enable them to cope with health problems such as chronic degenerative diseases that occur at this stage of the life. This rate far exceeds that of the U.S.-born and elderly immigrants from the rest of the world (figure 14). In absolute terms, just over 350,000 children, nearly six million adults and over 100,000 Mexican elderly adult immigrants in the United States are uninsured.

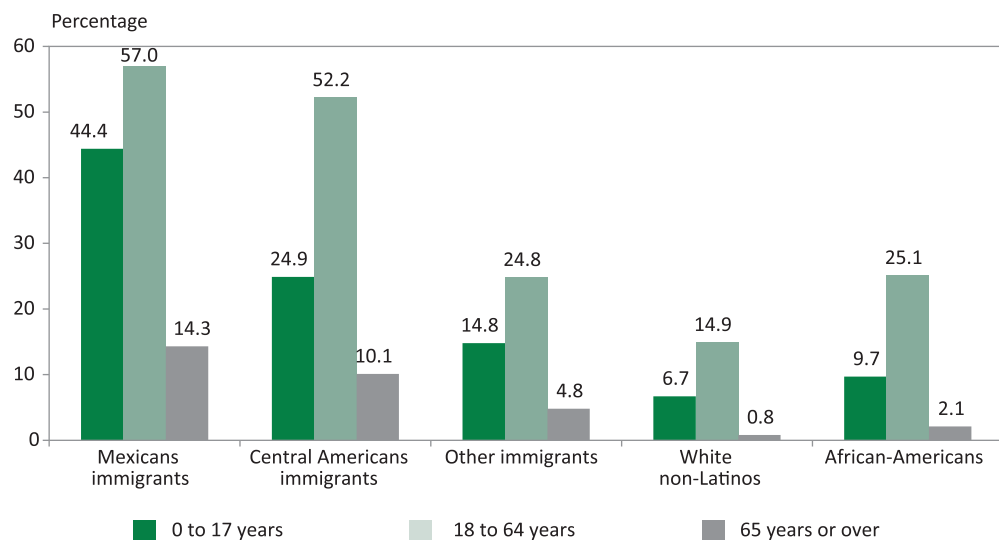


Table 13. Uninsured population resident in the United States, by sex and ethnicity or race, 2012



Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 2012.

Figure 14. Uninsured population resident in the United States, by age group, ethnicity and race, 2012



Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 2012.



The low-income Mexican population is very likely to be uninsured

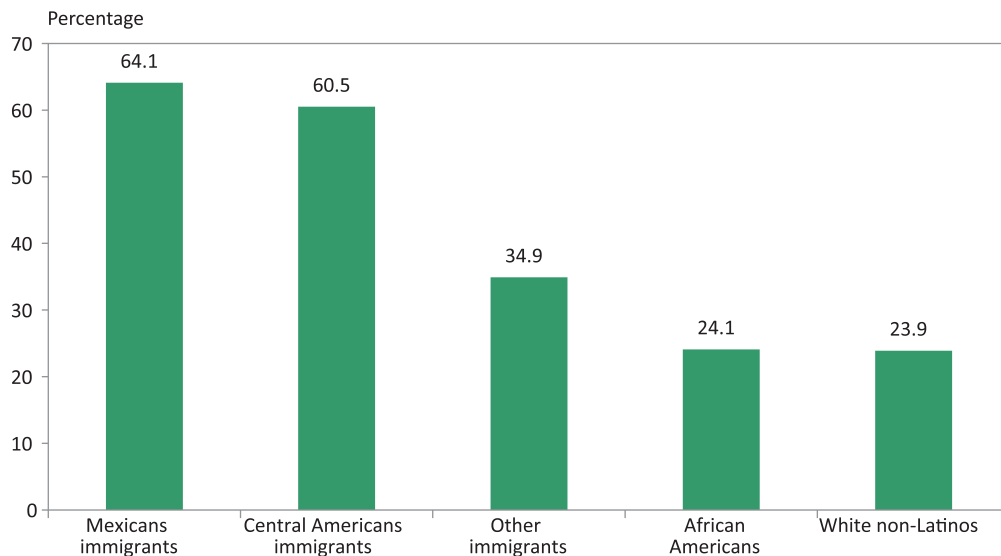
Uninsurance is more common among Mexican immigrants living in families with incomes below the federal poverty line in the United States. They are the most vulnerable group, since about 64% are not covered by either public or private health insurance. This figure is considerably higher than that for Central American immigrants, those from other countries and the U.S.-born population (figure 15). In this context, many Mexican immigrants in the United States who do not have a sufficient income to meet the basic needs of everyday life will probably also find it difficult to deal with health problems. In fact, it has been documented that many immigrants tend to defer treatment of diseases and conditions until they can return to their places of origin or self-medicate. Many are unaware that they have an illness or serious health problem, and often do not receive medical check-ups due to high cost of treatment

in the United States. For example, one study found that about half of recent Mexican immigrants with diabetes did not know they had the condition.²

Having health insurance is largely contingent on having employment

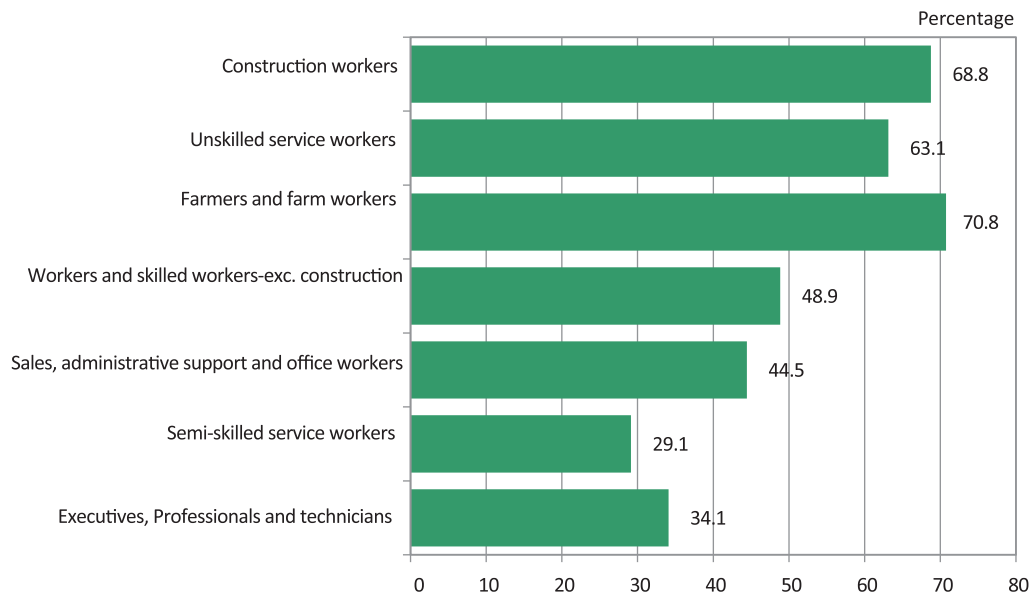
The possibility of having health insurance through employment varies according to the type of occupation. In this regard, data indicate that Mexican workers employed in less skilled occupations have few benefits or employment benefits, including health insurance. Uninsurance rates are particularly alarming among Mexican workers in the agricultural sector (71%), construction (69%) and low-skilled services (63%), which also are characterized by a high incidence of workplace injuries and illnesses. The most protected are Mexicans engaged in semi-skilled or skilled occupations, where only one in three is uninsured (figure 16).

Table 15. Uninsured, low-income population resident in the United States, by region of origin, ethnicity and race, 2012



Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 2012.

² Silvia Helena Barcellos, Dana P. Goldman, and James P. Smith, "Undiagnosed Disease, Especially Diabetes, Casts Doubt On Some Of Reported Health 'Advantage' Of Recent Mexican Immigrants", *Health Affairs*, 31(12):2727-2737; doi:10.1377/hlthaff.2011.0973.

**Figure 16. Uninsured Mexican immigrant population in the United States by occupational group, 2012**

Source: CONAPO estimates, based on Census Bureau, Current Population Survey (CPS), March Supplement 2012.

Low health coverage among Mexican immigrants exists throughout the United States

There are significant differences in the uninsurance rates of Mexican immigrants at the state level, which is closely related to the implementation or lack of state and local governments' economic, social and cultural policies. The lowest levels of coverage are in Ohio, Montana, South Carolina and Oklahoma, where Mexican immigrants have uninsurance rates of over 75% (map 2). These are followed by North Carolina, Kentucky, Alabama, Georgia, Pennsylvania, Michigan, North Dakota and Idaho, whose uninsurance rates vary between 65% and 75%.

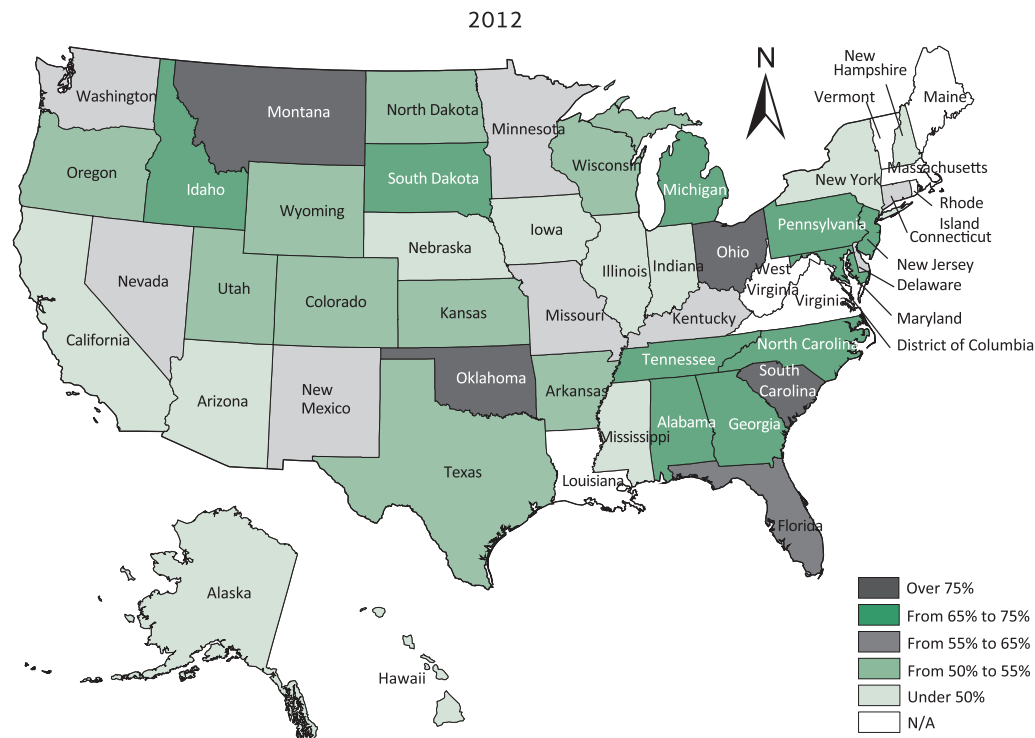
Mexican immigrants face greater barriers to public health insurance

The U.S. health care system relies heavily on private insurance, generally obtained through employment (either one's own or that of a spouse or, for children, a parent). Public insurance covers a minority of the nonelderly population, since it targets the most economically disadvantaged.

Low-income immigrants, particularly undocumented ones, face great obstacles in obtaining public insurance despite their very low incomes since one of the eligibility requirements for most federally supported programs is to have U.S. citizenship or five years' authorized residence in the country. According to CPS data from 2012, of the total insured Mexican immigrant population in the country (46%), about 27% had private insurance and only 17% were enrolled in a public health insurance program. The proportion with public insurance is similar to that recorded by Central Americans (16%) and white non-Latinos (16%), which is much lower than that of all other immigrants (19%) and Afri-



Map 2. Mexican immigrant population without health insurance
by state of residence in the United States, 2012



Source: CONAPO estimates, based on U.S. Census Bureau, Current Population Survey (CPS), March Supplement 2012.

can-Americans (32%), showing that only a small portion of the insured Mexican immigrant population has public health insurance (figure 17).

Low-income Mexican immigrants are less likely to have public health insurance than other immigrant groups and U.S.-born citizens in similar conditions

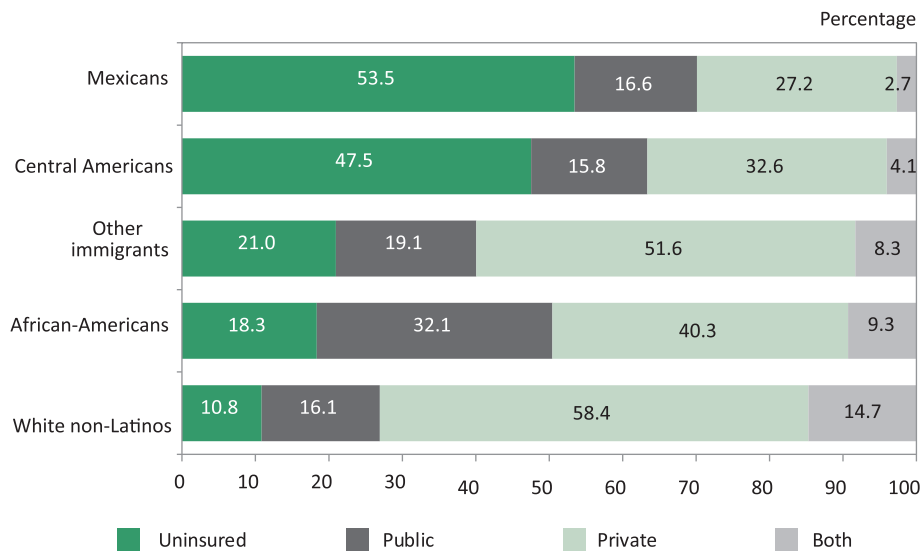
Even in the same economic conditions, Mexican immigrants are the least likely to benefit from public health programs. More than sixty percent of Mexicans living in low-income families (64%) did not have health insurance, while only 23% had public insurance, a similar situation to that of Central Americans (26%). In contrast, among white non-Latinos and all other immigrants, approximately four out of ten have public

insurance, as do just over half of African-Americans (55%) (figure 18). These results contradict with the popular image that immigrants from Mexico and Central America overburden government health programs. This is largely related to the high rates of undocumented status characterizing this group of immigrants.

Mexican and Central American immigrants also face significant barriers to obtaining private insurance, only 11% have private health insurance. This can be explained, on the one hand, by the high concentration of Mexicans and Central Americans in low-skilled jobs, which offer few employment benefits, and on the other hand, by the immigration status of a significant number of Mexicans and Central Americans, which reduces their capacity to negotiate this type of employment benefits.

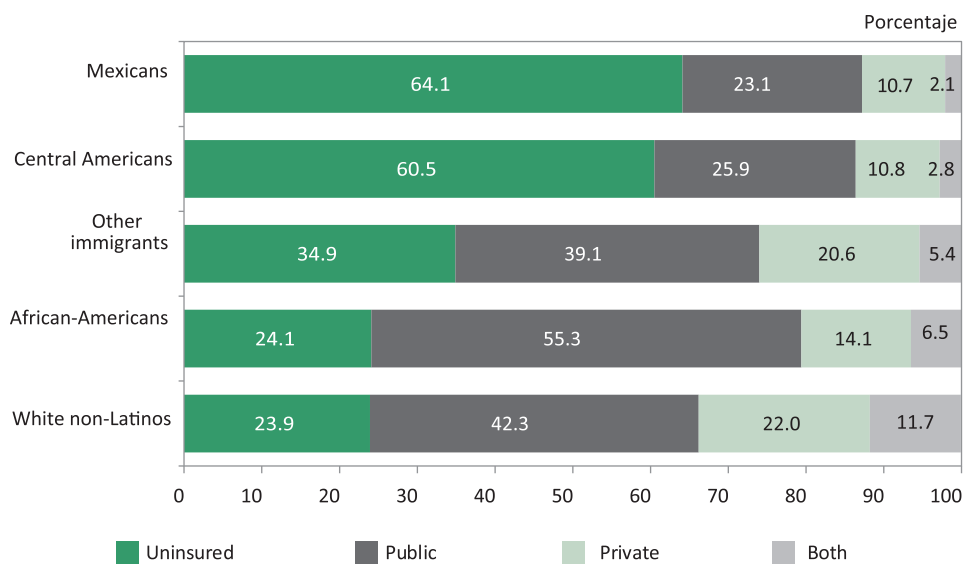


Table 17. Population in the United States with health insurance, by region of origin, ethnicity or race, 2012



Source: CONAPO estimates, based on U.S. Census Bureau, Current Population Survey (CPS), 2012, March Supplement 2012.

Table 18. Population resident in the United States living in low income*, by type of health insurance, by region of origin, ethnicity or Race, 2012



Note: */ Income below 150% of U.S. federal poverty line.

Source: CONAPO estimates, based on U.S. Census Bureau, Current Population Survey (CPS), 2012, March Supplement 2012.

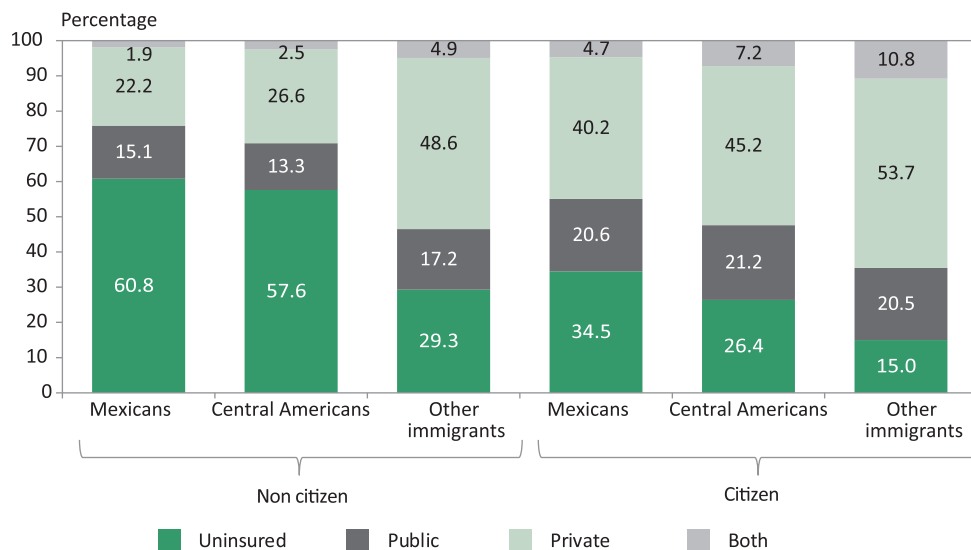


U.S. citizenship is a factor that positively affects access to public and private health insurance

An analysis of the distribution of the immigrant population by type of health insurance and citizenship status shows that only 15% of non-citizens born in Mexico had health insurance through public programs, while just over one in five had private insurance (22%). Among naturalized citizens, these figures are 21% and 40% respectively. A comparison of these rates with those recorded by other immigrants, however, shows that both naturalized and non-naturalized Mexicans have lower rates of insurance (figure 19). This means that in addition to U.S. citizenship status, there are other socioeconomic, cultural and linguistic factors that hinder access to health insurance and contribute to determining differentiated health care practices.

These disparities are not only related to citizenship status, but also to length of residence in the United States. Data indicate that uninsurance and low health coverage through public programs rates are higher among Mexicans and other immigrants who are recent arrivals in the United States. Only 17% of recent Mexican and Central American immigrants have public health insurance (figure 20). In this context, it is not surprising that many of them face major barriers to medical care when they need it, especially undocumented immigrants living in low-income families. By contrast, among those resident in the country for over 10 years, the proportion of those with public or private insurance is much higher. However, although Mexican long-stay residents are more likely to have health insurance than recent arrivals, they are still at a disadvantage in regard to immigrants from Central America and other countries. Data also confirm that Mexican-born immigrants benefit least from the public health programs designed to support the low-income population.

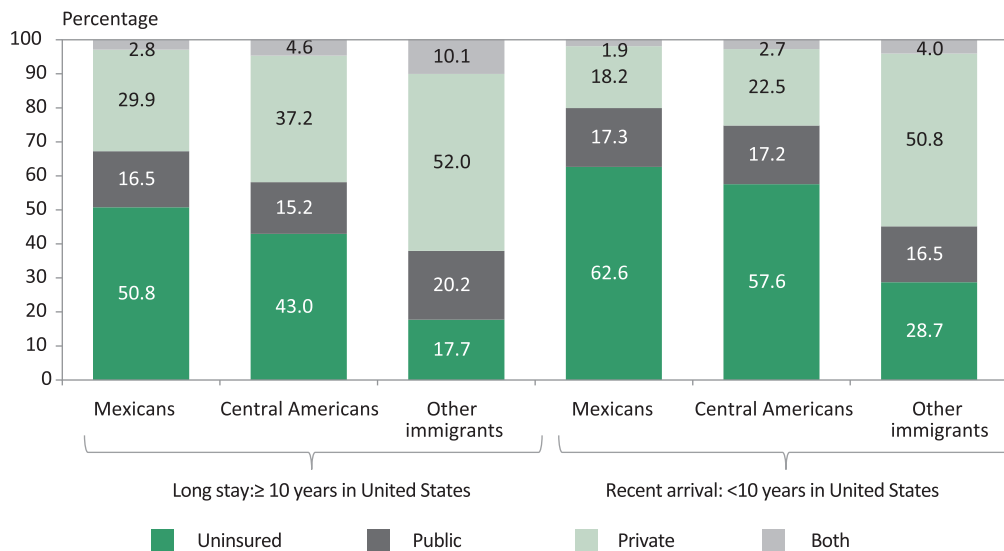
Figure 19. Immigrant population resident in the United States by health coverage and citizenship status, by region of origin and ethnicity or race, 2012



Source: CONAPO estimates, based on U.S. Census Bureau, Current Population Survey (CPS), March Supplement 2012.



Figure 20. Immigrant population by type of health coverage and length of stay in the United States, by region of origin and ethnicity or race, 2012



Source: CONAPO estimates, based on U.S. Census Bureau, Current Population Survey (CPS), March Supplement 2012.

HEALTH SERVICE USE

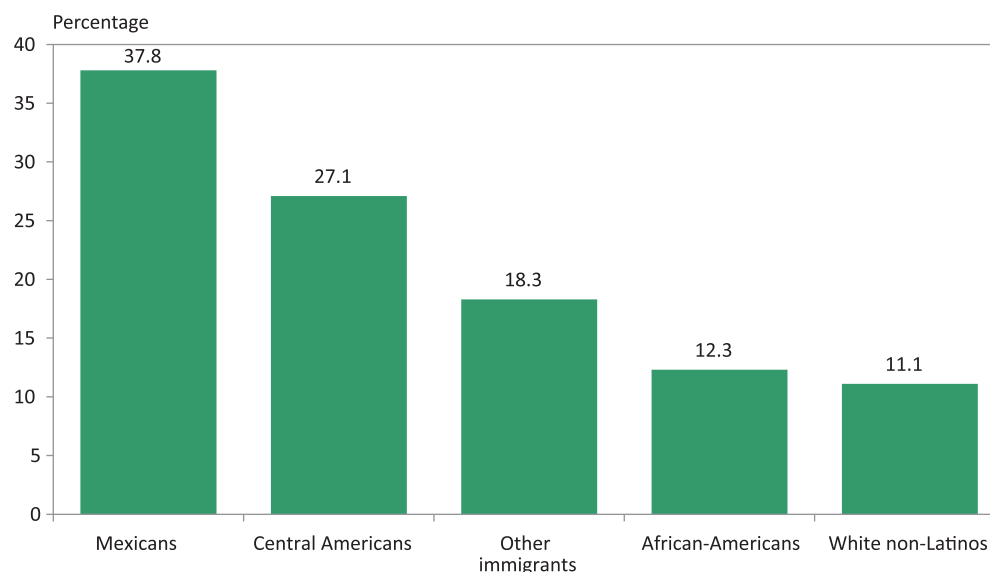
Mexican immigrants often do not have a place to receive regular health care

The data presented in the previous section show that Mexican migrants are more marginalized from public and private health insurance in the United States. The following documents that they also do not have a place to receive health care that would enable them to monitor their health on a regular basis, prevent diseases, have timely diagnoses and treatment, or consult a physician in the event of illness or emergency. According to data from the *National Health Interview Survey* (NHIS), nearly 38% of Mexicans living in the United States have no usual source of care. This proportion is ten percentage points higher than that recorded by Central American immigrants (27%), twice as high as that of immigrants from other countries (18%), and more than three times that reported by U.S.-born non-Hispanic whites and African-Americans: 11% and 12% respectively (Figure 21).

The disadvantaged situation of Mexican immigrants is present in all age groups, although it is greatest among the nonelderly adult population, in other words, the population aged 18 to 64, of which, over two in five do not have a regular place of health care (41%), whereas this situation only affects 17% of U.S.-born non-Hispanic whites and 18% of African-Americans. It is also striking that nearly three out of every ten Mexican children and teenagers do not have a place to receive regular health care (30%), a much higher figure than that for other U.S.-born and immigrant populations (figure 22). Considering that many Mexican immigrant children and adolescents live in poor families, who also have low rates of health insurance coverage, they are unlikely to have access to timely, regular medical check-ups. This is extremely worrying, since childhood and adolescence are the stages in the life cycle that requires the greatest attention to health, since poorly attended or treated diseases or injuries can affect healthy growth and development in addition to causing health problems in adulthood and even old age.

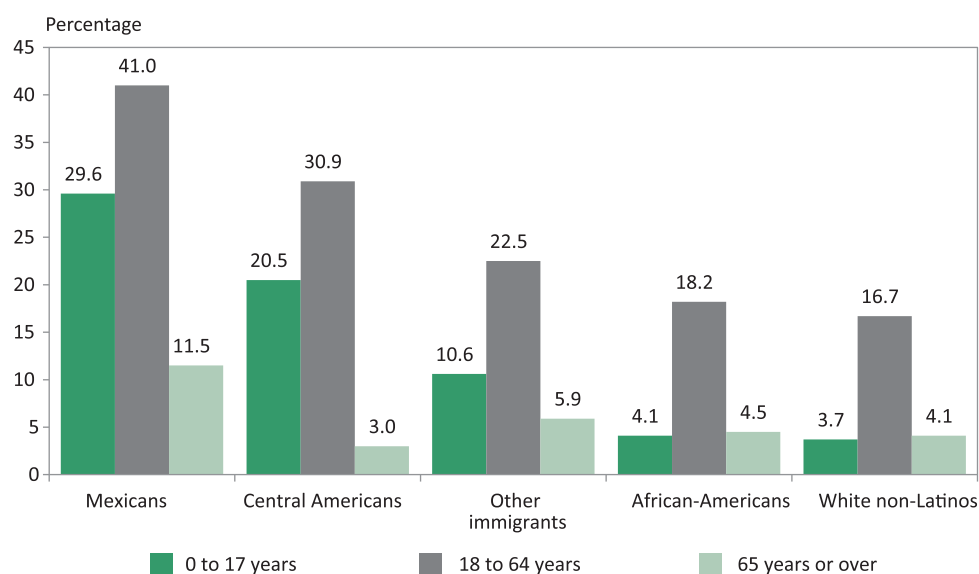


Figure 21. Population resident in the United States without a usual place of health care, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

Figure 22. Population resident in the United States without a usual place of health care, by region of origin and ethnicity or race, 2009-2011



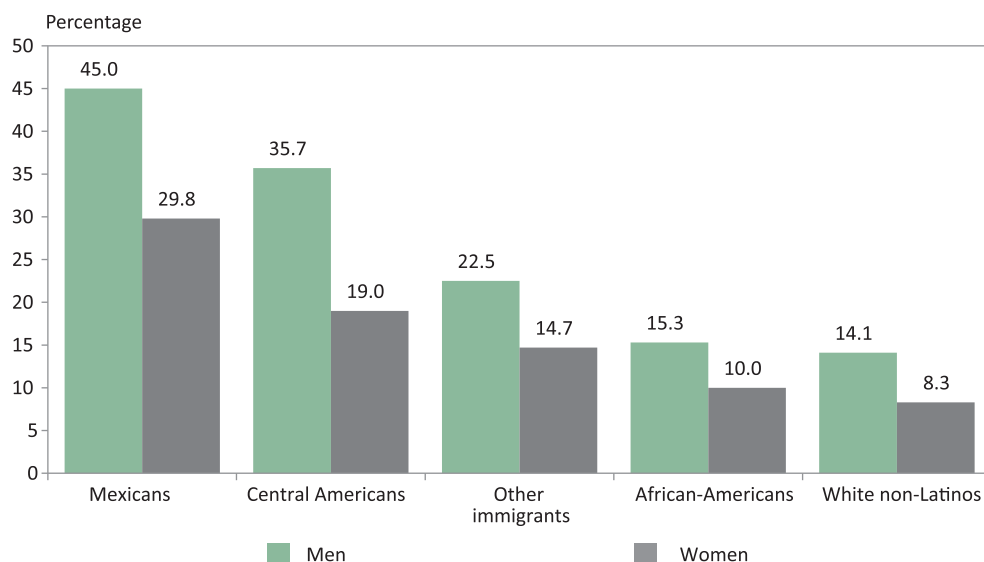
Source: CONAPO estimates, based on the National Health Interview Survey (NHIS), 2009-2011.



Moreover, the data indicate that a significant proportion of the elderly adult population (ages 65 and over) born in Mexico does not have a place to receive regular health care (11%). Although in this case the differences from other populations are smaller, it is important to note that this group is at a stage of life when health status deteriorates more rapidly and chronic degenerative diseases such as arthritis, rheumatism, Alzheimer's disease, hypertension, diabetes mellitus and vision loss develop. Consequently, problems associated with the lack of regular health care multiply when the population reaches old age.

In general, the having no usual place of health care is more common in men than in women. Differences between the sexes, however, are highest among Mexican and Central American immigrants. Whereas 45% of Mexican men do not have a usual source of care, this figure drops to 23%, 15% and 14% among immigrants from other regions, white non-Latinos and African-Americans, respectively (figure 23). About three in ten Mexican women are in this situation, whereas among white non-Latino women, the rate is approximately 8%.

Figure 23. Population resident in the United States without a usual place of health care, by sex, region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on the National Health Interview Survey (NHIS), 2009-2011.

TYPE OF HEALTH CARE SERVICE

Compared with the U.S.-born population and other immigrants in the United States, Mexicans rely less on private medical providers

In the United States there is a wide range of health care providers, including private practices, community clinics and other health centers, as well as other pro-

viders. However, the type of service used is directly related to the prevailing socio-economic inequalities between population groups, which vary according to place of origin, ethnicity and race. Those who visit private physicians are more likely to receive more personalized, specialized care than those who attend health centers or clinics, where there usually is less chance of having personalized service and the main focus is on preventive and primary services.



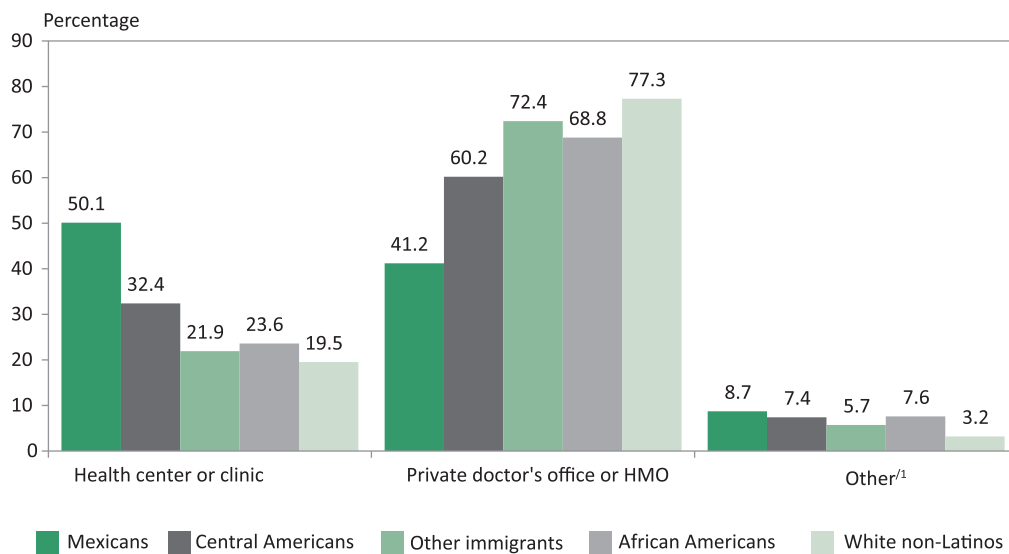
Among Mexicans with a usual place of health care, over half use clinics or health centers (50%). This figure is twice as high as that of white non-Latinos (19%), African-Americans (24%) and other immigrants (22%). In contrast, the proportion with a usual place of private health care, such as a private doctors' office or HMO, is significantly lower than among white non-Latinos and other immigrants, including Central Americans. The data show no statistically significant differences in the percentage of people of different national origins using "other sources" including emergency medical services, hospital outpatient care or home visits (figure 24).

The greater use of clinics and health centers by Mexican immigrants, compared with other population groups, remains when looking separately at men and women. The proportion of men who visit this type of medical unit is almost twice that of white non-Latinos (48% and 21%, respectively), a difference that expands to thirty-two percentage points among women in both population groups (figure 25).

Figure 26 shows that immigrants without U.S. citizenship are more likely to receive care at these health centers and clinics, and that this tendency is most prevalent among Mexican-born immigrants (58%), followed by among Central Americans (46%) and other immigrants (28%). Conversely, among Mexicans with U.S. citizenship and a regular place of care, just over 60 percent receive regular medical care in a private doctors' office or HMO, although this proportion is lower than among other immigrant groups (77%).

Although these figures reflect the disadvantaged situation of Mexican immigrants vis-à-vis other groups as regards seeking more specialized health services, it is important to recognize the fundamental role played by community health clinics in providing primary and preventive services for the most disadvantaged sectors. These services are more accessible to Mexican immigrants, not only because of their lower cost, but because they are often located in immigrant communities and staffed by health professionals and providers who speak several languages, including Spanish. Moreover,

Figure 24. Population resident in the United States without a usual place of health care, by region of origin and ethnicity or race, 2009-2011

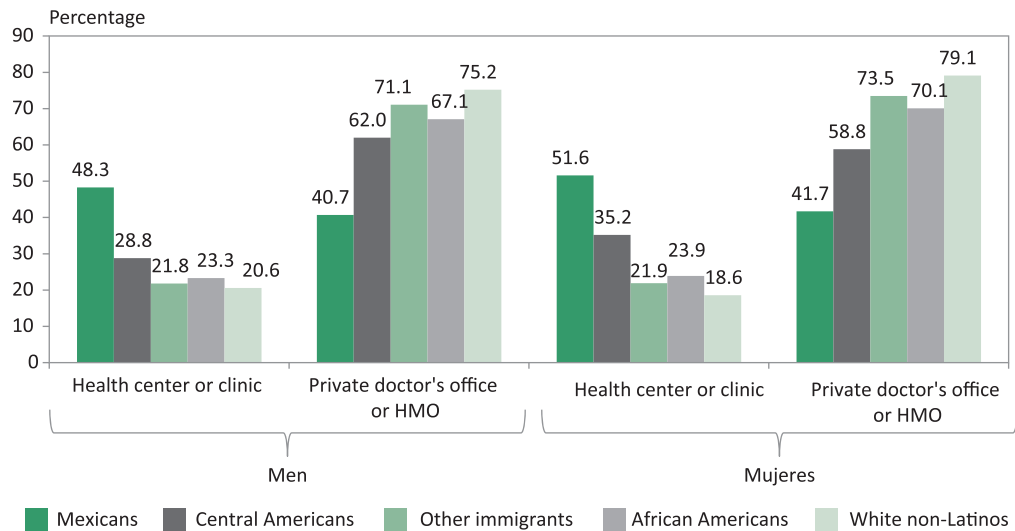


Note: 1/ Other: includes emergency department, hospital outpatient department and elsewhere.

Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

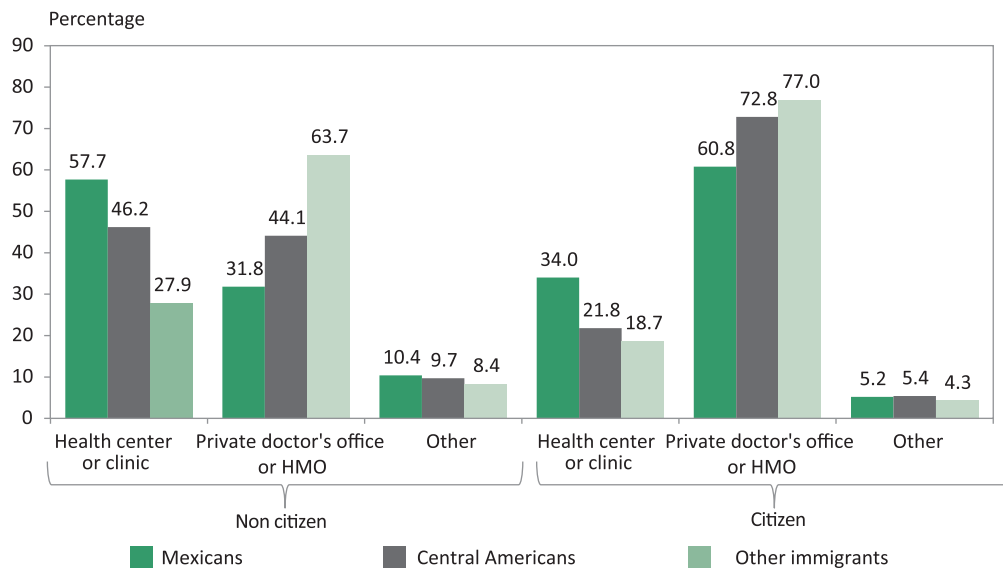


Figure 25. Population in the United States by usual place of health care and sex, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

Figure 26. Population in the United States by usual place of health care and citizenship status, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.



they do not request information on immigration status, the main fear of the undocumented seeking health care services. Since the enactment of the Affordable Care Act (ACA) in 2010, these health centers have benefited from an injection of funds to increase institutional capacity to provide health care services.

HEALTH CARE

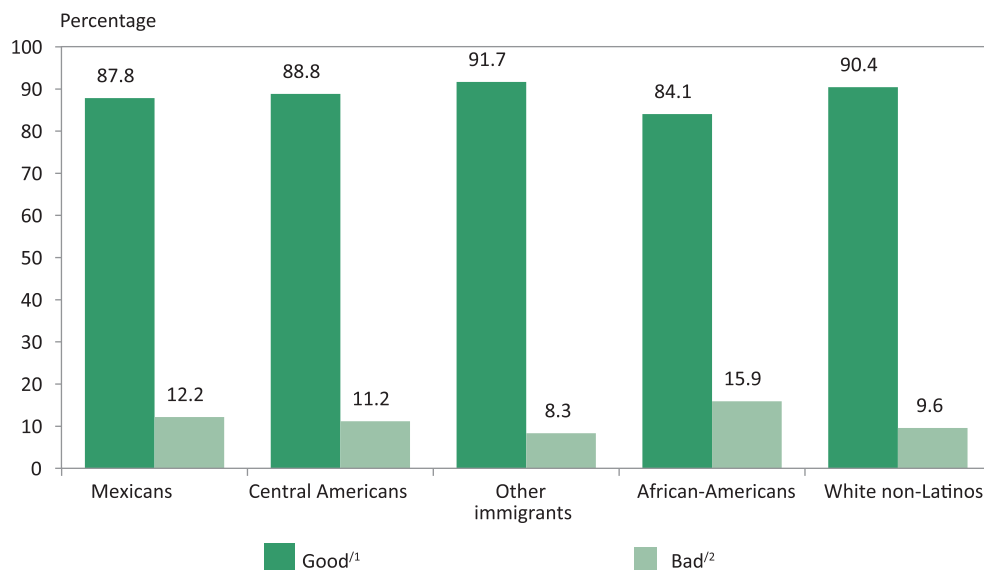
Mexicans who perceive themselves as being in good health visit the doctor less often

The frequency with which people visit a doctor is closely linked to their perception of their health as well as the severity of the any injury or disease being treated. Thus, medical visits are more frequent when health problems are perceived, and more sporadic when they consider their health status as good. The frequency of medical service use is not only influenced by peoples' perceptions, but also by various economic, cultural

and institutional factors, as described throughout this chapter. In this regard, the data show no significant differences in the perception of health among the different population groups. In general, over eight in ten people aged 18 to 64 years perceive their health as excellent, very good or good, while a small proportion perceive it as fair or poor (figure 27).

However, data show that Mexican immigrants who perceive their health as fair or poor are less likely than U.S.-born residents and all other immigrants to visit a doctor or health specialist: nearly eight in ten, compared to about nine in ten (figure 28). The data also reveal differences by gender regarding how often they seek health services, with women being in a more advantageous position. The largest differences were observed among Mexicans, where the proportion of women who perceive their health as fair or poor and who consulted a physician in the last twelve months is almost twenty percentage points higher than that of men (86% versus 67%) (figure 29). No significant differences are present between Mexican women and

Figure 27. Population ages 18 to 64 years in the United States without a usual place of health care, by region of origin and ethnicity or race, 2009-2011



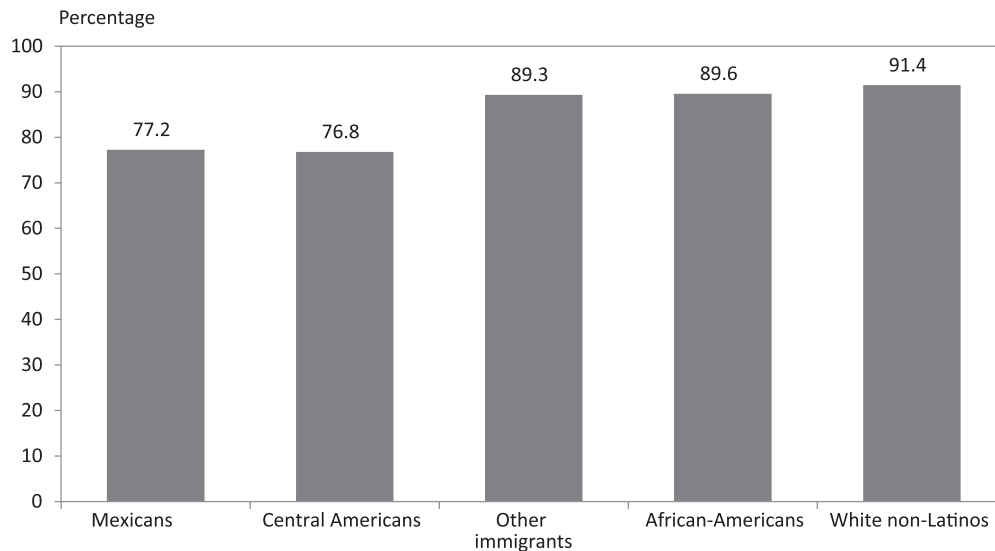
Notes: 1 / Includes categories of excellent, very good and good.

2 / Includes categories of fair and poor.

Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

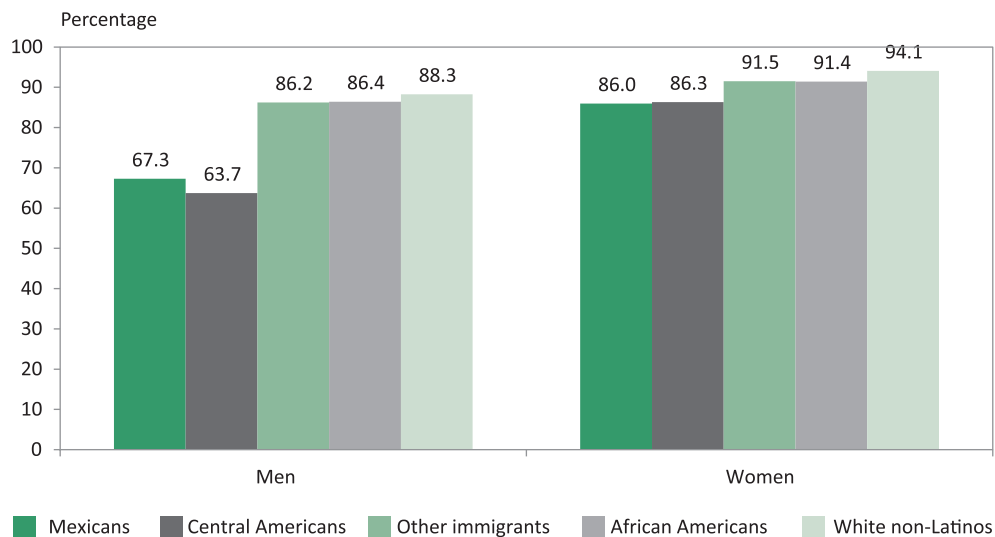


Figure 28. Population ages 18 to 64 years in the United States that perceived its health as fair or poor and visited a doctor in the past twelve months, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

Figure 29. Population ages 18 to 64 years in the United States that perceived its health as fair or poor and visited a doctor in the past twelve months, by sex, region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.



women in other groups as regards receiving medical care in the past twelve months, which suggests that more emphasis should be placed on raising awareness of the importance of timely medical care among Mexican and Central American-born men.

The extremely low level of use of medical services on a regular basis by Mexicans and Central Americans is probably not only related to greater financial difficulties, but also to other factors such as the low rate of naturalization, limited English proficiency and the lack of bilingual staff at U.S. health centers and clinics. Indeed, lack of proficiency in the dominant language in destination societies is often an obstacle to immigrants' social and economic integration. In this case, according to data from the *American Community Survey* (ACS), in 2011, 48% of just over 11.9 million Mexicans living in the United States were not proficient in English (52% in the case of women). The situation is most dramatic among those who arrived in the past ten years, since 57% do not speak the language, twelve percentage points above those with longer residence in the country (45%). In recent years, however, there have been a number of efforts to ensure that clinics and community centers have bilingual staff to serve as interpreters for people and patients who does not speak English.

Over half of all Mexican immigrants failed to have preventive health check-ups in the past 12 months

The frequency with which children and adolescents use health services is a key indicator of access to health care. The American Academy of Pediatrics emphasizes the importance of ensuring that these groups receive regular care in a context of comprehensive health supervision. This organization recommends that children over two years have at least one medical visit per year to avoid health problems.³ It is assumed that those who meet this requirement engage in regular preventive practices that positively determine their physical and intellectual development

(immunizations, growth supervision, etc.) and their state of health throughout their lifetime.

According to U.S. health statistics, only two out of four Mexican immigrant children under age 18 obtained a medical check-up in the past twelve months (53%), a lower percentage than that of other immigrant children and adolescents, and noticeably lower than that of U.S.-born whites and African-Americans. They are therefore more exposed to the risk involved in failure to treat diseases or conditions in a timely fashion, which can eventually undermine their physical and mental health (figure 30).

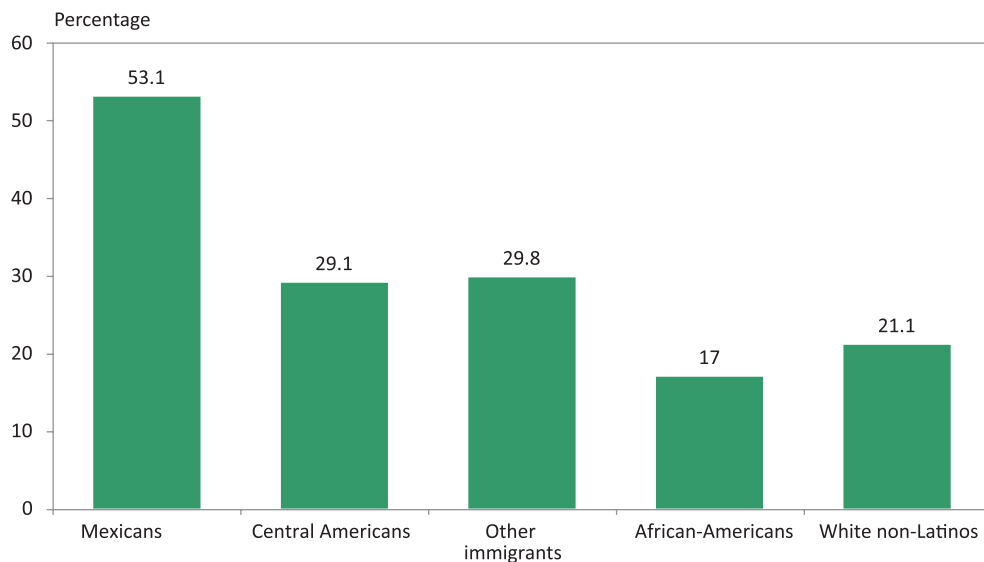
Once again, data reveal significant differences in levels of obtaining medical check-ups by sex and place of origin, ethnicity and race. Among the immigrant population ages 0-17, the proportion of males who did not undergo a medical examination in the past year is higher than among females, a proportion that is highest among Mexican-born immigrants (56%). Similarly, it should be noted that, albeit to a lesser extent than men, Mexican women are less likely to attend medical check-ups than Central Americans and those from other countries and world regions (49%, 21% and 33%, respectively). Conversely, no significant differences were observed between the sexes among the white non-Latino and African-American population (about one in five people did not have a medical check-up in the past twelve months) (figure 31). These figures confirm the greater vulnerability of the Mexican-born population.

Mexicans continue to be less likely to visit a doctor within the recommended period of time as adults as well. About one in five people born in Mexico ages 18-64 had last visited a doctor more than two years ago, and one in ten had last been in a doctor's office between one and two years ago. Both figures are higher than those observed for the U.S.-born population and other immigrants, with the exception of Central Americans who are in a similar situation to Mexicans. Moreover, both Mexican and Central American immigrants have a high percentage of people who reported never having visited a doctor or a health specialist (4% and 5%, respectively) (figure 32).

³ For children under 24 months, the American Academy of Pediatrics recommends a higher number of visits.

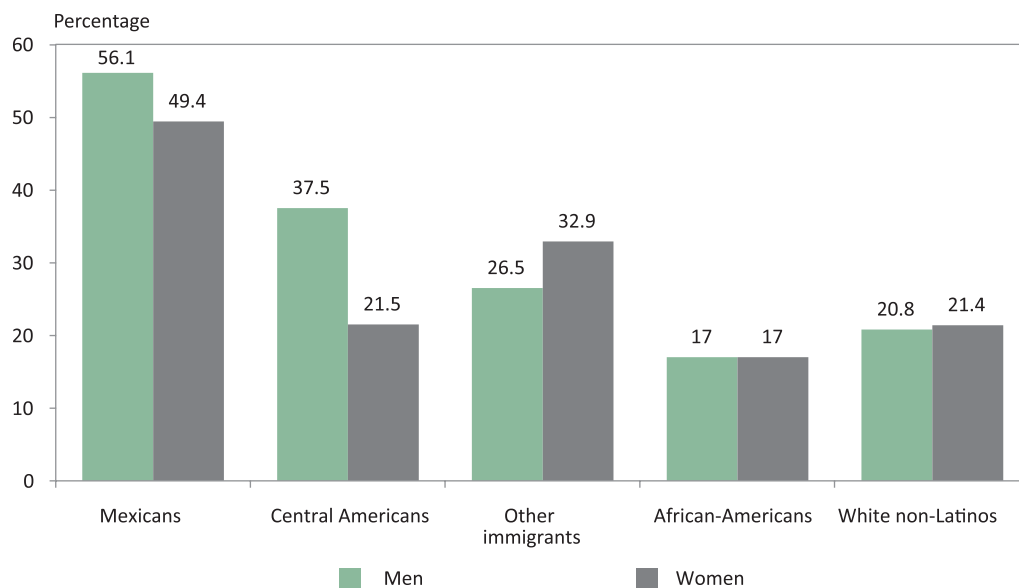


Graph 30. Population ages 0 to 17 years in United States that did not obtain preventive medical check-up in the past year, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

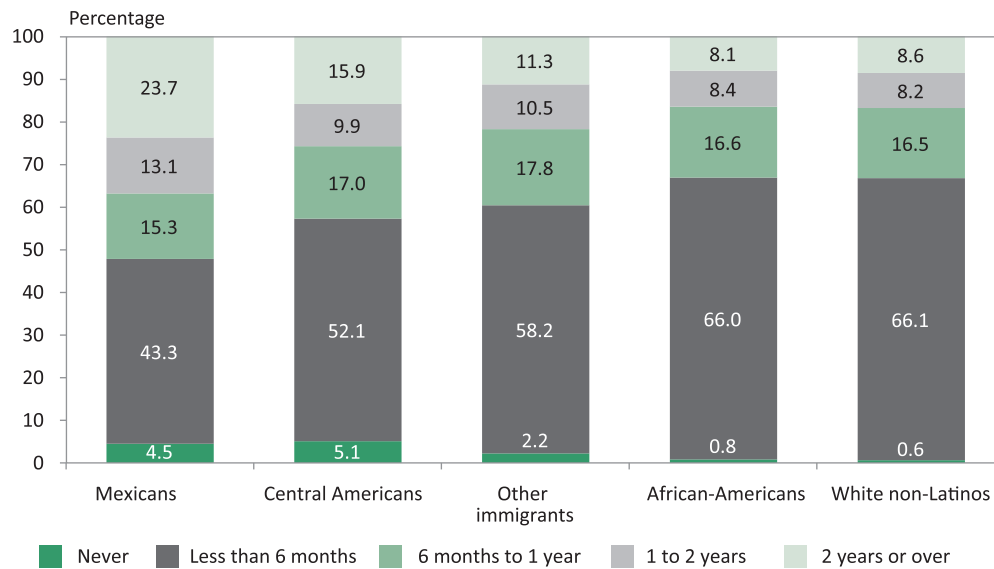
Figure 31. Population ages 0 to 17 years in United States that did not obtain preventive medical check-up in the past year, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.



Figure 32. Population ages 18 to 64 in the United States by time of last visit to doctor, by region of origin and ethnicity or race, 2009-2010



Source: CONAPO estimate, based on National Health Interview Survey (NHIS) 2009-2011

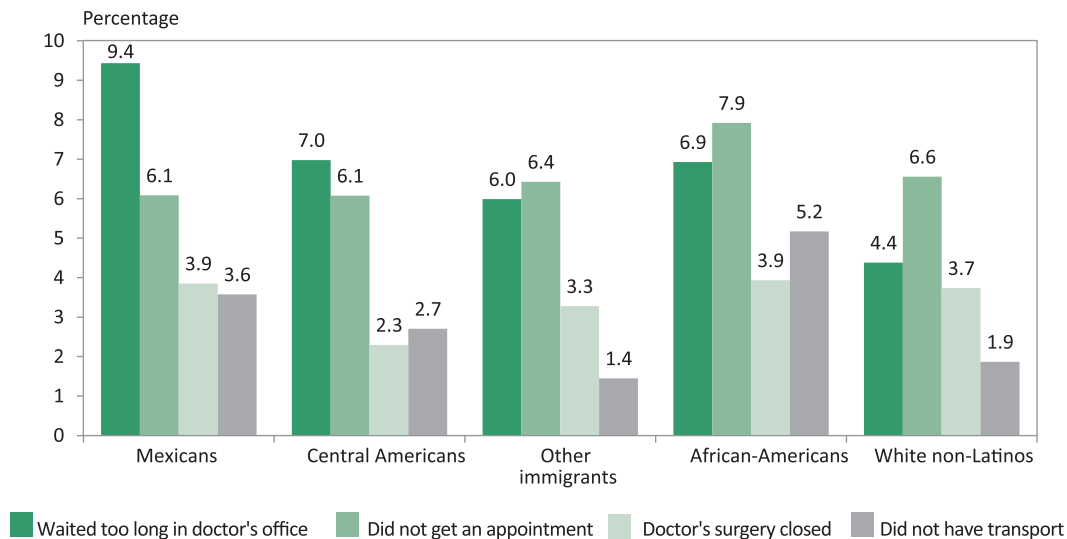
Mexican immigrants in the United States face major barriers to receiving timely medical care

Low use of medical services and the postponement of medical treatment among the Mexican and Central American immigrant population may be due to their limited health insurance coverage, but may also be partly due to other economic, cultural and institutional factors, such as socioeconomic family background, cultural differences in the perception of health, communication problems between doctor and patient and immigration status.

Other factors also influence access to health services, such as the quality of the service and administrative barriers, to name just a few. In this respect, nearly one in ten nonelderly adult Mexican immigrants reported postponing medical care because the waiting time in the doctor's office was excessive, while six percent did so because they failed to obtain an appointment, and nearly four percent because the doctor's office they usually visit was closed. Not having transportation to get to the doctor's office is another reason for not attending the doctor (4%). These figures are higher than those reported by other U.S.-born and immigrant populations. For example, the percentage of white non-Latinos who delayed medical care because they had no transportation is almost two percentage points less than in Mexicans (figure 33).



Figure 33. Population ages 18 to 64 years in the United States by reason for delay in health care, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimate, based on National Health Interview Survey (NHIS) 2009-2011.

HEALTH CARE, HEALTH BEHAVIOR AND HEALTH CONDITIONS

Mexican immigrants have better health than other immigrants and the U.S.-born population

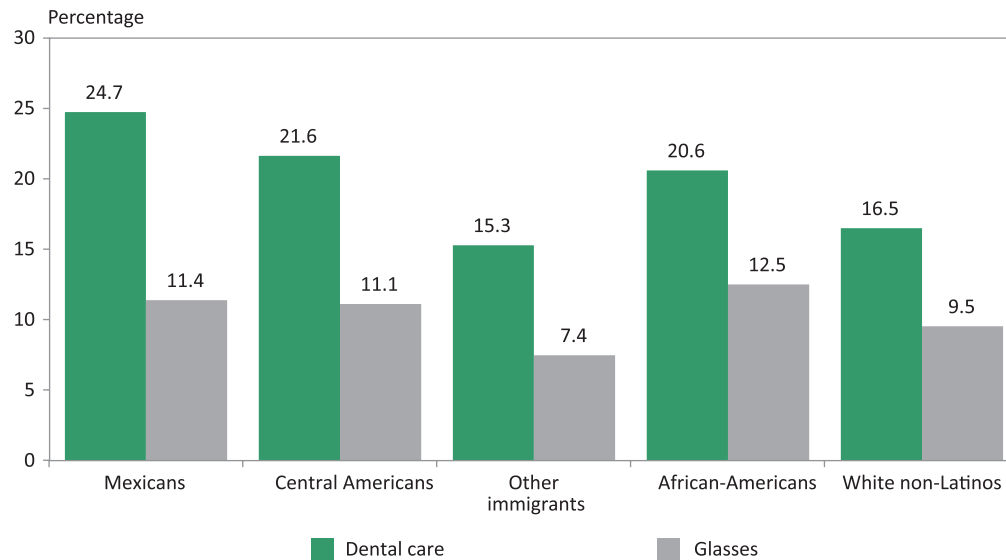
Regular, high quality preventive health care permits the early detection of diseases and conditions. Hence the importance of having tests or exams to check the status of one's overall health, including regular measurements of weight, blood pressure, glucose; cancer and HIV screening; and others depending on age and sex. However, many immigrants tend to minimize the importance of health issues and disease prevention, perhaps because they feel healthy, or because of the barriers they face in accessing health services. In the case of nonelderly adult Mexican immigrants, for example, 25% reported that they did not have access to dental care, higher than the rate reported by other population groups. Likewise, Mexicans, together with

Central Americans and African-Americans, recorded a high percentage of people who reported needing glasses but could not afford them (figure 34).

As described below, diabetes and overweight or obesity are some of the major health problems affecting the U.S. population. Regular monitoring of glucose levels and a proper diet under medical supervision can reduce the risk of negative health outcomes from these conditions and other ailments. However, data indicate that only 34% of Mexican immigrants had had a glucose test in the past year, below Central Americans (36%) and the U.S.-born population and immigrants, among whom about four in ten had had this test done. Since the risk of diabetes is much higher for Mexican Americans than white non-Latinos, the screening rate for Mexican and Central American immigrants should be higher, not lower, than that of white non-Latinos. While the screening rate is lower for men than women in all groups, figure 35 shows that the gap is greatest among Mexican immigrants (26% for men versus 42% for women).

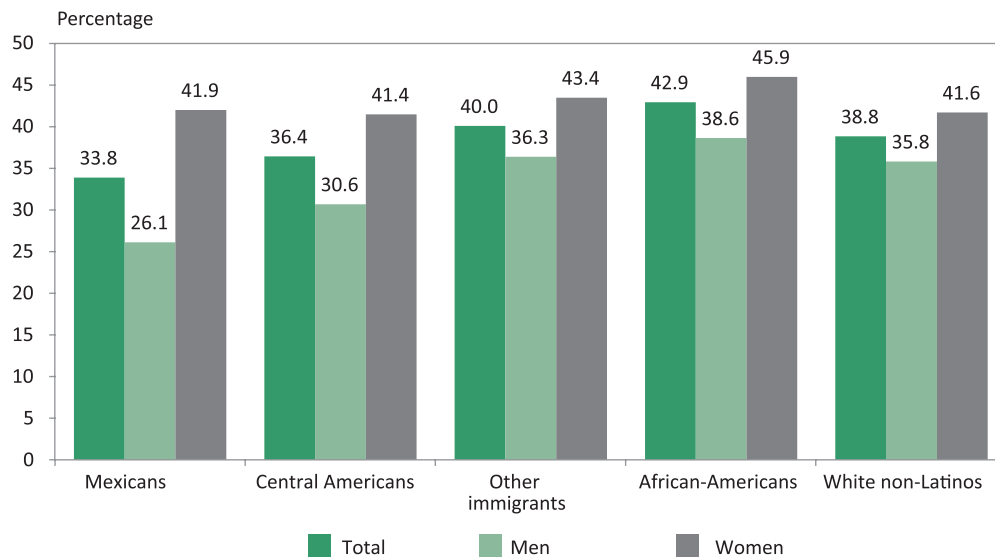


Figure 34. Population ages 18 to 64 in the United States that needed dental care and glasses, and could not afford them, by region of origin, ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

Figure 35. Population ages 18 to 64 in the United States that had a glucose test in the past year by sex, place of origin and race or ethnicity, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

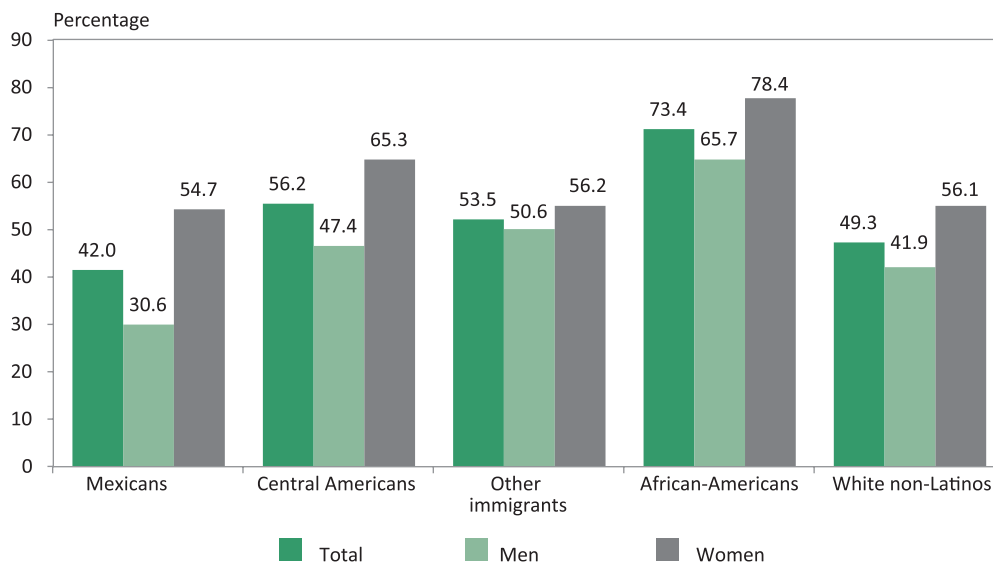


Unlike other immigrants, Mexican men are less likely to undergo HIV tests.

People who have an active sex life should undergo tests to detect the presence of HIV and other sexually-transmitted diseases. Unfortunately, the Mexican immigrant population records the lowest percentage of HIV testing (42%). Conversely, just over half of all Central Americans and other immigrants ages 21 to 50 have undergone this test at least once in their lives.

Among the U.S.-born population, African-Americans were more likely to have undergone HIV tests than white non-Latinos. When this figure was analyzed by sex, significant differences were found in the different population groups. Among those born in Mexico and Central America, women are more likely to be tested for the presence of HIV than men. Conversely, among the U.S.-born population and other immigrants, a greater proportion of men undergo HIV tests (figure 36).

Figure 36. Population ages 21-50 years in the United States who have ever been tested for HIV, by sex, region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

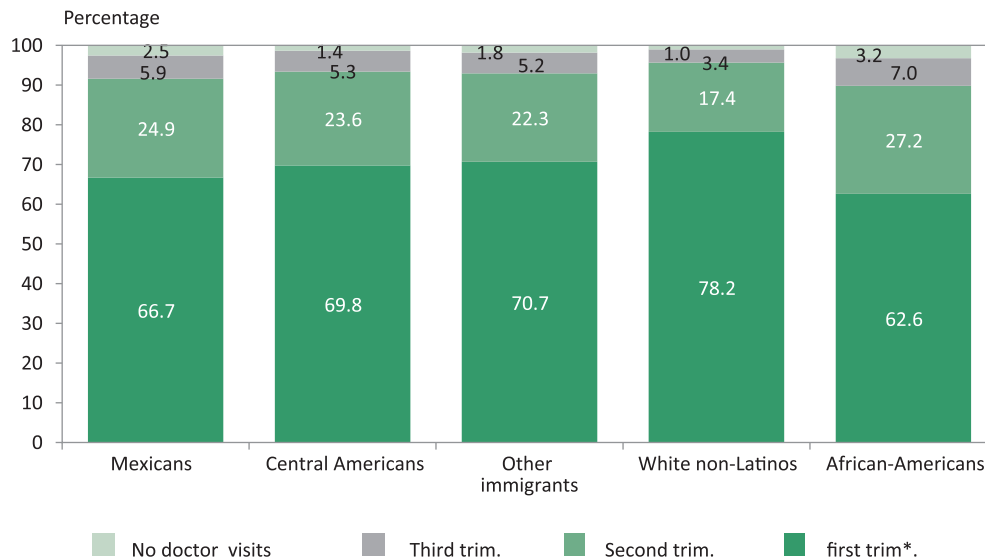
Mexican women are less likely to have proper prenatal care

Medical care during pregnancy is crucial to ensuring the health of mother and baby. However, health statistics in the United States indicate that many Mexican immigrants do not receive prenatal care starting in the first trimester of pregnancy as recommended. Only 67% of Mexican immigrant women who gave birth in 2010 visited the doctor during the first trimester and

one in four did so in the second trimester of pregnancy (25%). Among the U.S.-born population, African-Americans are in the worst situation since only 63% had prenatal care in the first trimester (figure 37). Moreover, six percent of Mexican immigrant women who gave birth did not begin to receive medical care until the last trimester of pregnancy and three percent did not visit the doctor during pregnancy, a negative situation only exceeded by African-Americans (7% and 3%, respectively).



Figure 37. Births in the United States, by start of mother's visit to the doctor and ethnicity or race, 2010



Note: * / Also Includes Those who Exceeded the Third Trimester of Pregnancy.

Source: CONAPO estimates, based on National Center for Health Statistics, Vital Statistics, Births, 2012.

The disadvantage of Mexicans and other Latin American immigrants in health care is also reflected in the cancer screening. For example, the percentage of Latino women ages 18 or over tested for cervical cancer (Pap smear) within the past three years (78%) is much lower than that recorded by white non-Latinos and African-American women (85%). Among the female population aged 40 or over, Latin American women report the lowest percentage of testing for breast cancer (mammography) within the previous two years as recommended (70%).

Moreover, approximately 39% of Hispanic men and women ages 50 and over reported that they have never had a colonoscopy, sigmoidoscopy or proctoscopy, or have had a blood stool test in the past two years to detect the presence of colon cancer. This situation is shared by half of all African-Americans (50%) and almost three in five white non-Latinos in this age group (58%). Overall, data from the National Healthcare

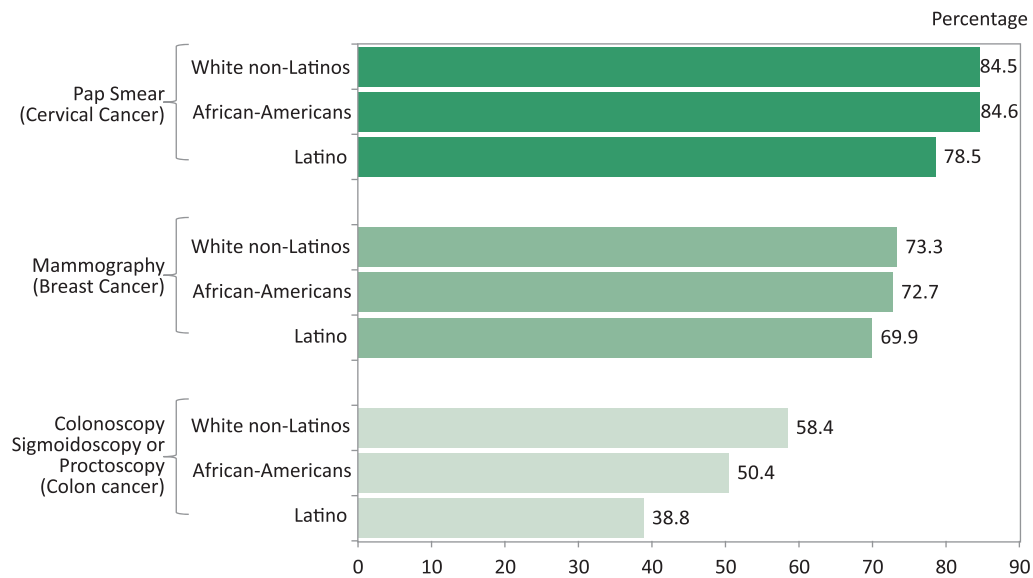
Disparities Report indicate that population from Mexico and other Latin American countries engage in fewer preventive health care practices than other population groups (figure 38).

In short, access to health insurance, either through an employment benefit or a public program, and the use of medical services –preventive, curative and rehabilitative– among Mexican immigrants in the United States is much lower compared to other population groups. This situation of inequitable access disproportionately affects men, and occurs across age groups or in all states in the country.

High rates of medical vulnerability that affect Latinos in general, and Mexican immigrants in particular, are clearly associated with features such as its high rate of undocumented status and their insertion in productive sectors and occupations that increase their marginalization and vulnerability.

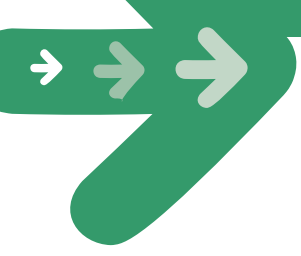


Figure 38. Population in the United States that have had tests for early cancer detection, 2012



Note: Men and women ages 50 and over who have never reported having a colonoscopy, sigmoidoscopy or proctoscopy or having had a blood stool test in the past two years. Women ages 40 and over who had a mammogram less than two years ago. Women ages 18 years and older who had a pap smear less than three years ago.

Source: Drawn up by CONAPO, based on the National Healthcare Disparities Report, 2012.



CHAPTER III

RISK FACTORS AND HEALTH CONDITIONS

INTRODUCTION

The migration process is an experience that can lead to physical and mental health problems. Several studies have documented that migrants' health is affected by repeated exposure to risk factors, from leaving their place of origin, during their period of transit, and while settling in the destination country. Certain behaviors, such as changing eating habits, increased consumption of alcohol and tobacco and physical inactivity contribute to the rise of chronic diseases, which, coupled with the barriers to health care, increases the vulnerability of migrants.

This chapter will discuss, first, the risk factors and health behaviors associated with deteriorating health conditions that are associated with migration, and then will review key health conditions, with a particular emphasis on occupational health and the prevalence of chronic conditions. The analysis is based on data from the National Health Interview Survey (NHIS) and the Survey on Migration in the Northern Border of Mexico (EMIF NORTE, by its Spanish acronym), as well as data collected from Labor Statistics, U.S. Department of Labor.

HEALTH RISK FACTORS

Alcohol use is less frequent among Mexican immigrants, although when they do drink they are more likely to consume in excess

Tobacco use and excess alcohol consumption pose a significant health risk, as they can accelerate or trigger the emergence of chronic diseases such as lung cancer

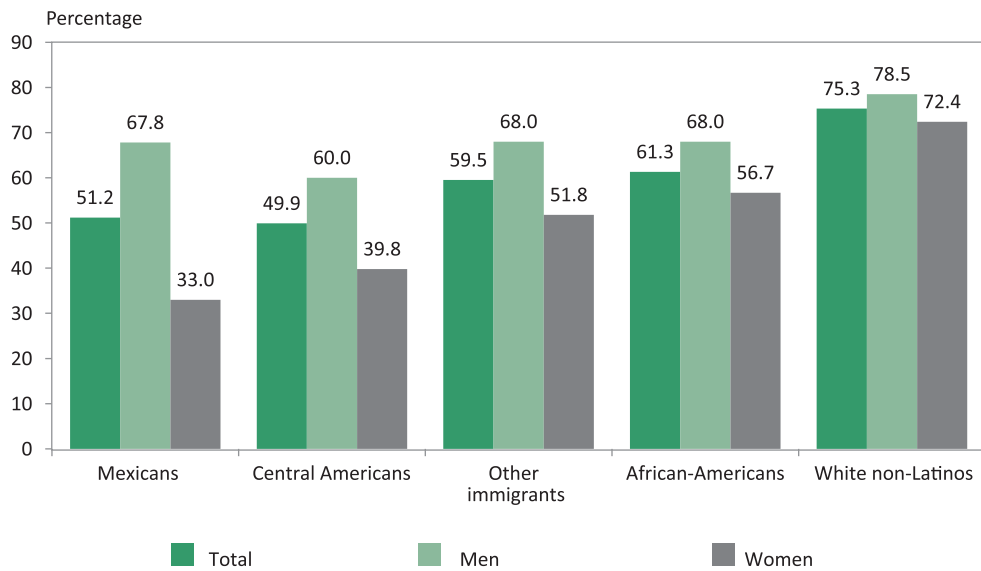
and emphysema, cirrhosis of the liver, internal bleeding, and hepatocellular alcohol intoxication.

The available data show that, compared with the U.S.-born population and other immigrants, Mexican and Central American immigrants reported being less likely to have consumed any alcohol in the year prior to the interview (51% and 50%, respectively). For example, only 33% of women report having consumed alcohol. This figure is well below those recorded by women of other nationalities (figure 39).

Research suggests that moderate consumption of certain types of alcohol, such as wine, may have positive results on one's health status. Excess consumption, however, has a negative impact on health status through both health problems such as liver failure and some cancers as well as through increasing the risk of accidents and interpersonal violence. An analysis of average consumption on the days alcohol is consumed shows that those born in Mexico consume more alcohol (an average of 3.7 drinks per day), followed by white non-Latinos and Central Americans (an average of 2.7 and 2.6 drinks per day, respectively). It is also important to note that, compared with men, women who reported drinking alcohol consume less. Among Mexican immigrants, for example, men drink an average of two more drinks per day than women (4.3 and 2.3 drinks, respectively). These figures are a matter for concern because some research on health determinants has documented that alcohol consumption among the immigrant population tends to rise as the length of stay in the host country increases, particularly among the male population (figure 40).

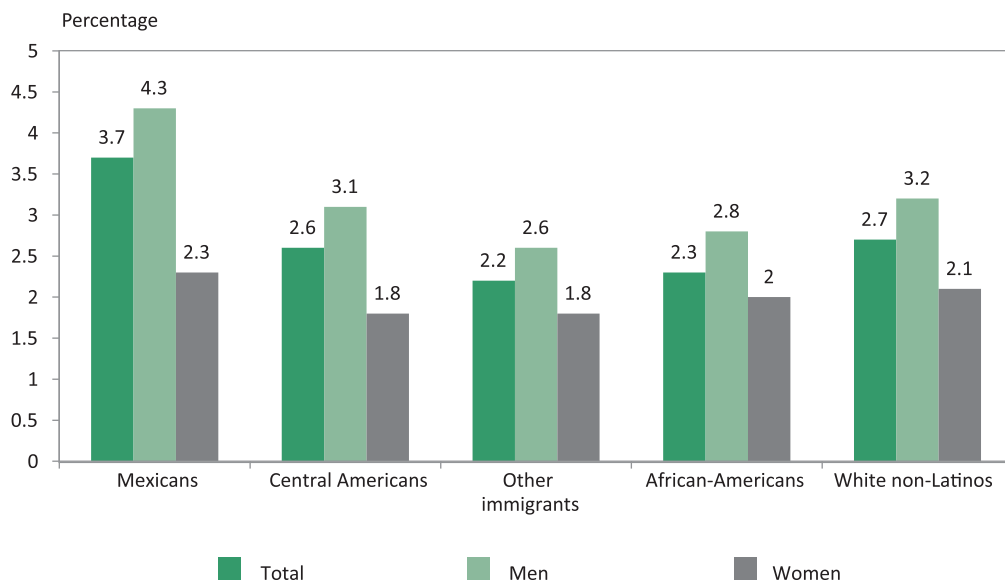


Figure 39. Population ages 18 to 64 in the United States who consumed alcohol at least one day in the year preceding the interview, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.

Figure 40. Population in the United States by average consumption of alcoholic beverages*, by region of origin and ethnicity or race, 2009-2011



Note: * Corresponds to the days when alcohol is consumed.

Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.



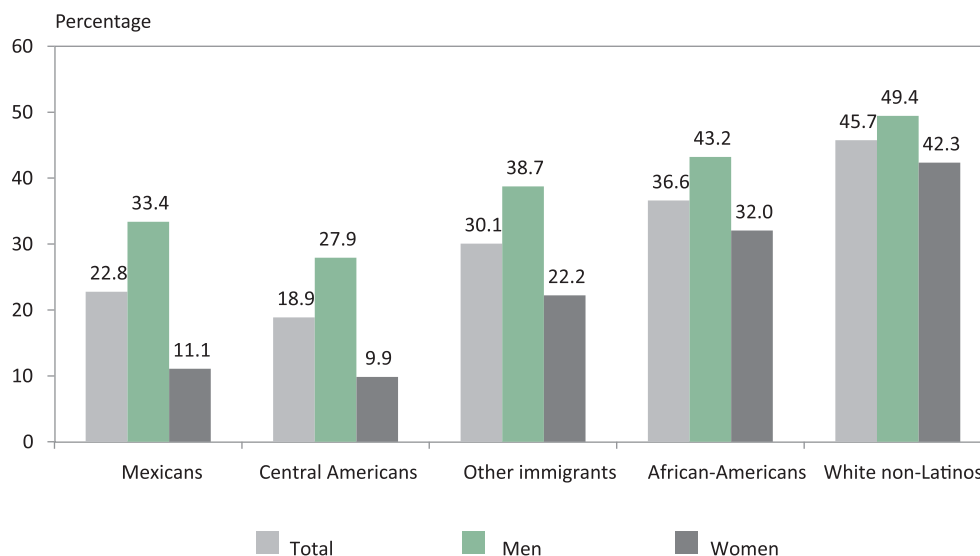
A significant proportion of Mexicans reported smoking cigarettes daily

Smoking is an addiction that impacts both the smoker and those around them. Smoke inhaled by active and passive smokers contains toxic substances that may cause disease in the short and long term, such as emphysema and cardiovascular problems as well as cancer. U.S. statistics show that smoking is more prevalent among the U.S.-born population than immigrants, and that consumption among Mexicans and Central Americans is even lower (23% and 19%, respectively). Among Mexican immigrants, men are more likely to report that they have smoked over 100 cigarettes in their lifetime (33%), three times the rate of women (11%). In turn, this figure is slightly higher than that recorded by Central American men (28%), but lower than that reported by other immigrants (39%), but lower than that reported by other immigrants (39%).

In contrast, among the white non-Latino population, the data show smaller differences between men and women who report having smoked over 100 cigarettes in their lifetime, approximately seven percentage points (figure 41). In fact, only one in four Mexican immigrants who ever smoked reports smoking on a daily basis (24%), similar to the rates recorded by Central Americans (26%), but much lower than that of other immigrants and natives (figure 42).

Consistent with these data, it appears that, in comparative terms, Mexican regular smokers smoke fewer cigarettes a day than the U.S. population and other immigrants (8 cigarettes, on average) (figure 43). There is no amount of smoking that is considered safe, but the lower amounts of smoking by Mexican immigrants suggests that it may be easier to help them quit smoking than it is for other groups.

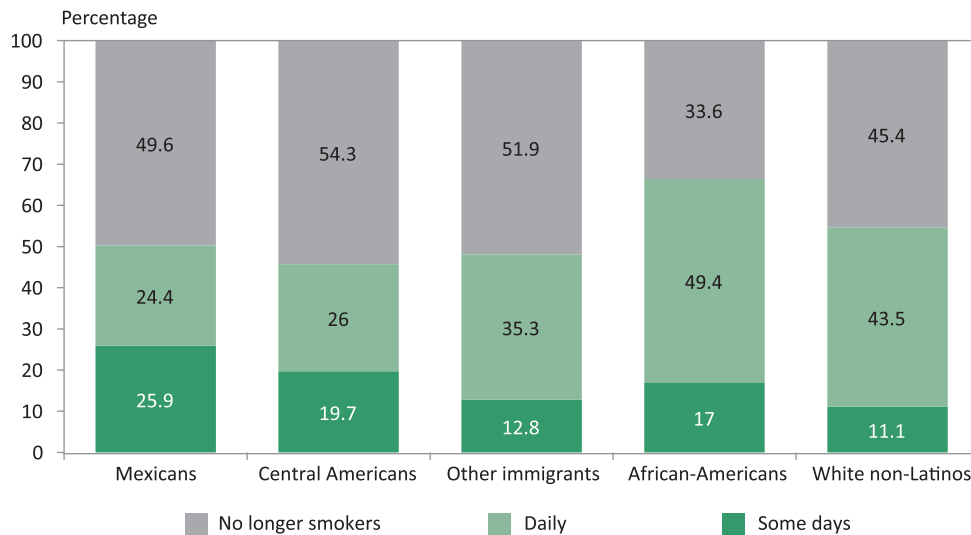
Figure 41. Population ages 18 to 64 in the United States that have smoked over 100 cigarettes in their lifetime, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.



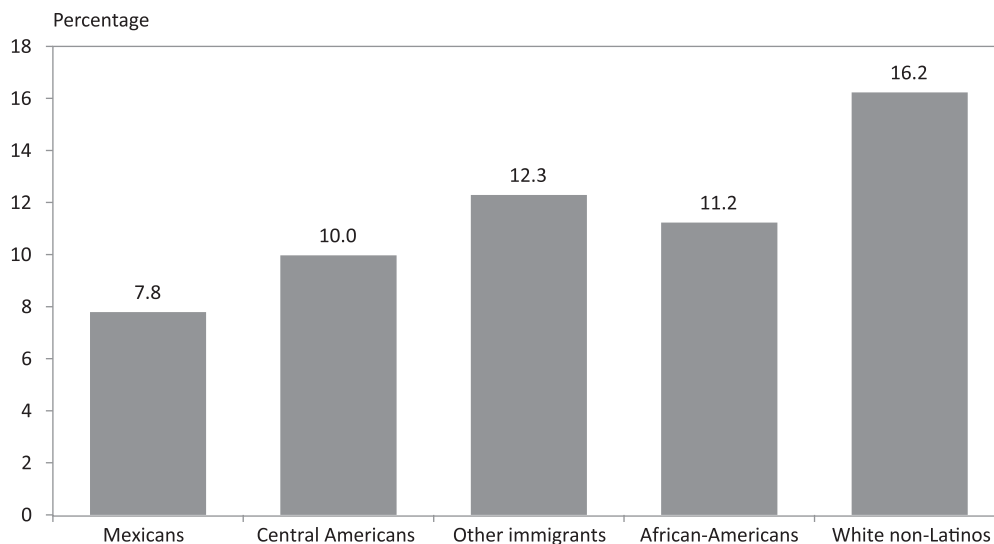
Figure 42. Population ages 18 to 64 in the United States* by smoking frequency, by region of origin and race or ethnicity, 2009-2011



Note: */ Among those who ever smoked.

Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.

Figure 43. Population ages 18 to 64 in the United States* by average number of cigarettes smoked per day, by region of origin, ethnicity or race, 2009-2011



Note: */ Among current smokers.

Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.



HEALTH PROBLEMS

WORKPLACE ILLNESSES AND INJURIES

Mexican immigrants are more exposed to fatal work accidents

Available data on workplace mortality affecting immigrants in the United States indicate that nearly two-fifths of victims were born in Mexico, while twelve percent are from Central America, seven percent from Caribbean and four percent from South America, in other words, Latin Americans account for 62 percent of immigrant workplace deaths (figure 44).

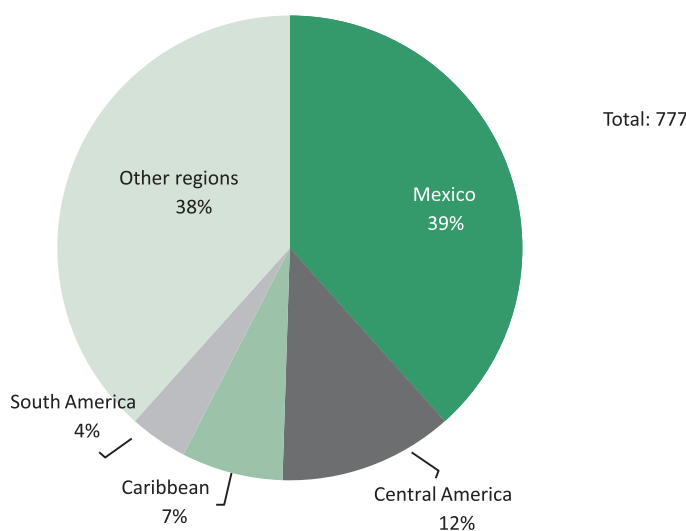
The high proportion of fatal workplace injuries among Mexican immigrants in particular, and the Latino population in general, is largely due to a pattern of the highest risk sectors of the labor market rely-

ing heavily on immigrant labor. These sectors are also characterized by low wages and benefits. U.S. Labor Department data show that certain specific occupations with a large share of Mexican workers, including agriculture, the mining industry, the field of transport and construction, are more likely to be involved in fatal injuries (figure 45).

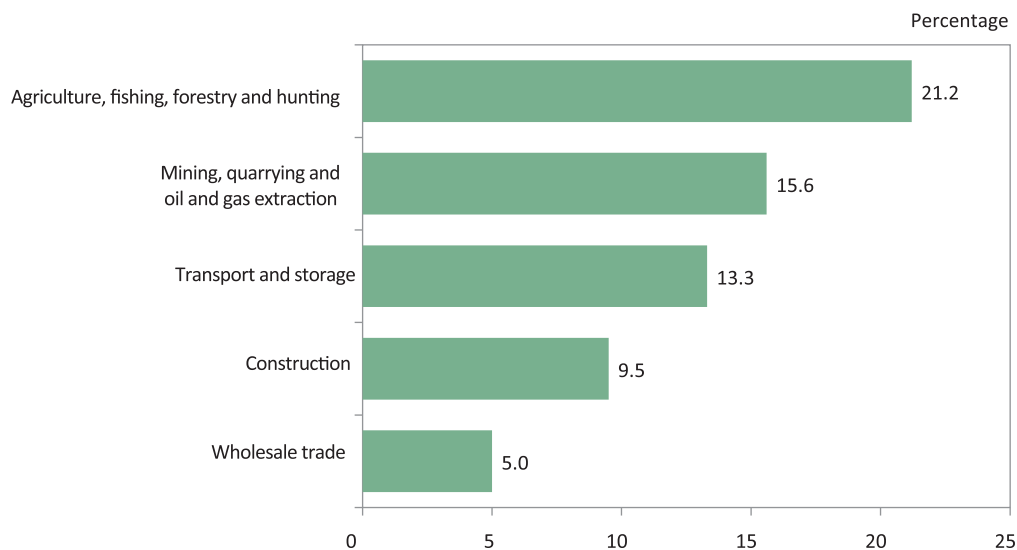
Many Latinos engaged in agriculture and construction are victims of non-fatal injuries and illnesses associated with the workplace

Nearly sixty percent of the injuries and illnesses affecting the Latino population (both immigrant and native-born) in the United States occur in just four low-paid sectors: transportation and materials transport (21%), manufacturing (17%), leisure and hospitality (15%) and education and health services (12%) (figure 46).

Figure 44. Distribution of work-related deaths of foreign-born population resident in United States, by region or country of birth, 2012



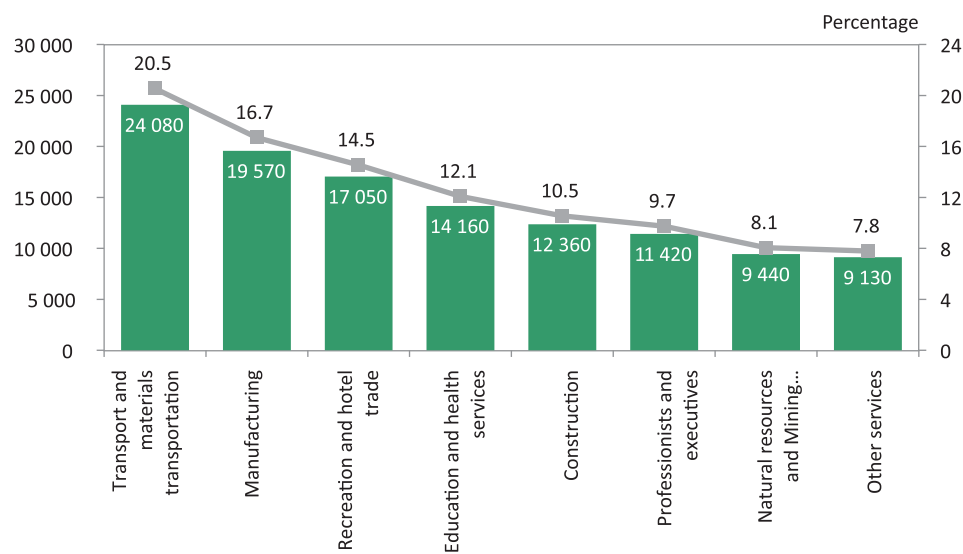
Source: Drawn up by UPM, based on U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2013.

**Figure 45. Fatal accident rate in the United States, by occupation, 2012***

Notes: * Data for 2012 are preliminary.

Fatal Accident Rate (per 100,000 full-time workers)

Source: Drawn up by UPM, based on U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2013.

Figure 46. Occupational injuries and illness of Latino population forcing them to miss work, 2011

Source: Drawn up by UPM, based on Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating State agencies.



These sectors have a high number of Mexican ancestry workers, meaning that it is likely that a significant proportion of victims are Mexican-born.

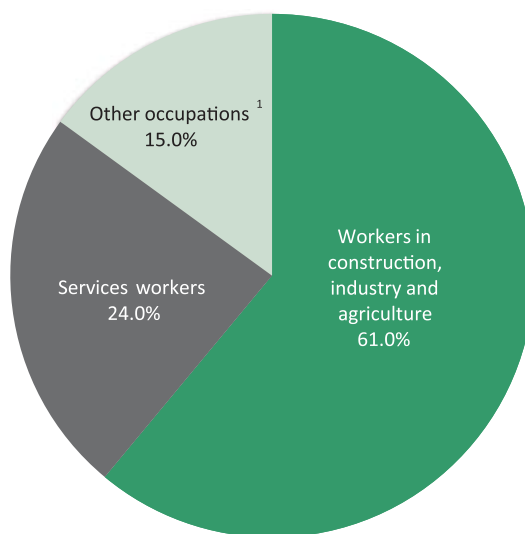
The largest number of Mexicans who suffered a workplace injury or illness were engaged in construction, industry or agriculture

Estimates based on a special module of the *Encuesta sobre Migración en la Frontera Norte de México* (Survey on Migration in the Northern Border of Mexico) (EMIF NORTE) support the U.S. data on the risks faced by Mexican migrants engaged in construction, manufacturing or agriculture, since these occupations account for over six in ten workplace injuries or illnesses reported by returning migrants (figure 47).

Restrictions on the availability and use of health insurance and inadequate labor law monitoring mechanisms significantly affect Mexican migrants. According to EMIF NORTE, of returned migrants who had a workplace injury or illness, nearly one in five (17%) had to pay for the cost of treatment out of their own pockets, while employers covered expenses in 40% of cases, and 41% did so with public or private insurance (figure 48).

Lack of access to health care, discrimination, the language barrier, unfamiliarity with job security procedures and protection regulations coupled with the lack of labor rights, hesitancy to enforce them and failure to exercise monitoring mechanisms are some of the factors that increase workplace health and safety risks among the Mexican population.

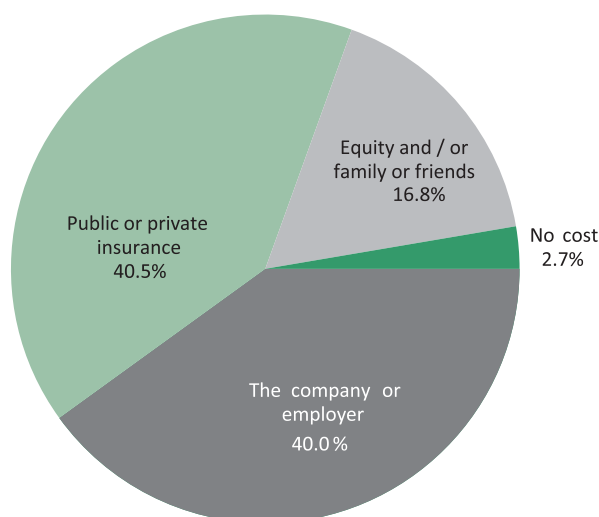
Figure 47. Percentage distribution of Mexican migrants who returned to Mexico and suffered an accident or illness in the United States that required medical attention, by occupation, 2010



Note: 1/ Includes the professionals, technicians, administrators, merchants and others.

Source: UPM estimates, based on CONAPO, STPS, INM, SRE, EL COLEF, *Survey on Migration on Mexico's Northern Border* (EMIF NORTE), Health module, January-March 2010.

Figure 48. Percentage distribution of Mexican migrants who returned to Mexico and suffered an accident or illness in the United States that required medical attention, by the entity that paid for this service, 2010



Source: UPM estimates, based on CONAPO, STPS, INM, SRE, EL COLEF, *Survey on Migration on Mexico* Northern Border (EMIF NORTE), Health module, January-March.

DISEASE PREVALENCE

Certain diseases such as diabetes and obesity are more common among Mexican immigrants

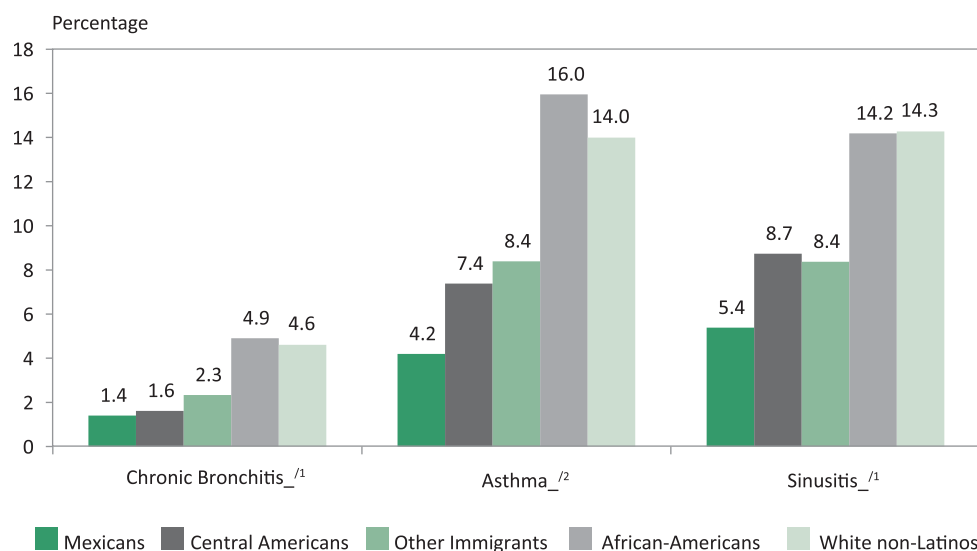
Some research and health statistics in the United States indicate that Mexican immigrants have a more favorable health status than one would expect, given their socioeconomic status and low rates of health insurance coverage and health service use. One explanation often cited in the literature on the subject to explain this situation is that international migration is a selective process, in other words, those who are fit-test and healthiest, both physically and mentally, are the ones who emigrate. It is also said that this result could be due to circular migration and the return of less healthy Mexicans to Mexico in adulthood, as well as the under-reporting of illnesses due to the lack of

diagnoses. Regardless, certain studies on health determinants indicate that, over time, immigrants tend to acquire unhealthy habits and engage in risky practices that adversely affect their health.

According to data reported by the U.S. National Health Interview Survey (NHIS), compared with other groups, nonelderly adult Mexican immigrants are the least likely to suffer serious chronic conditions such as respiratory problems, cardiovascular disease or hypertension. Only 4% have been diagnosed with asthma by a doctor or specialist. This figure is three percentage points lower than that recorded by Central Americans (7%) and other immigrants (8%), and about a third of the rate corresponding to white non-Latinos (14%). African-Americans constitute the population with the highest prevalence of asthma (16%). Likewise, Mexicans report the lowest rates of chronic bronchitis and sinusitis in the past twelve months (1% and 5% respectively) (figure 49).



Figure 49. Population ages 18 to 64 in the United States ever diagnosed with a respiratory illness, by region of origin and ethnicity or race, 2009–2011



Notes: 1/ In the past twelve months

2/ Ever diagnosed

Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009–2011.

According to data from the Center for Disease Control and Prevention (CDC) in 2012, one in three people in the United States have hypertension and over half do not control it. This is worrying because the disease is one of the major risk factors associated with heart attacks and strokes. In fact, heart disease is one of the leading causes of death in the United States, among both men and women, despite the fact that there are significant differences by ethnic and racial origin. In this regard, the data indicate that those born in Mexico are less likely to have hypertension than other nonelderly adult population groups: only 15 percent compared with 34% among African-Americans and 24% among whites. Among immigrants from Central America and other countries, the figure is 20% and 18%, respectively. As for heart disease (angina, coronary heart disease, heart attacks and congenital diseases, among others), Mexican immigrants have the lowest incidence of these diseases (2%). At the other extreme are white non-Latinos and African-Americans with 7% and 6%, respectively. Mexican immigrants also have a lower incidence of

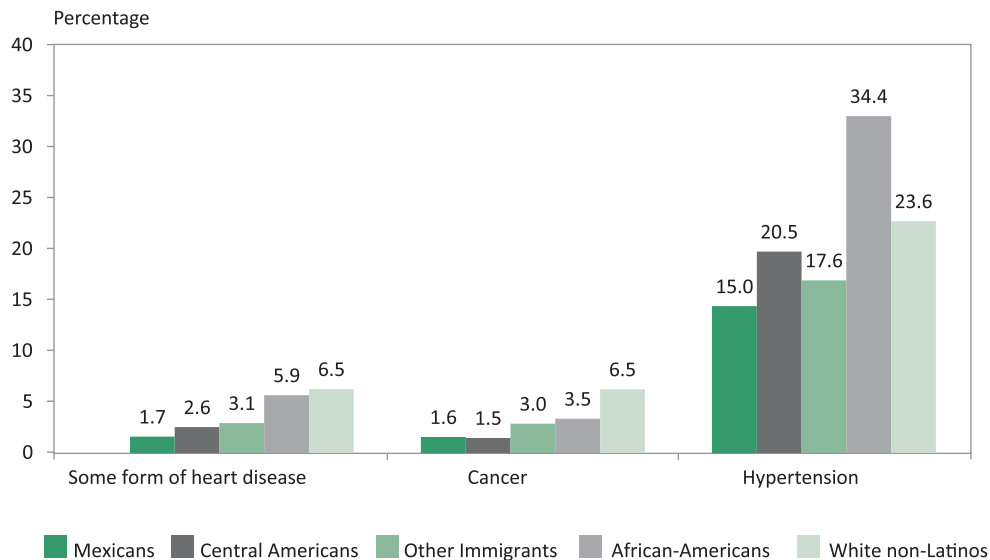
cancer compared with other nonelderly adult population groups (2%) (figure 50).

Two factors might account for the low prevalence of these conditions. First, the age structure of Mexican immigrants is younger than that of the native born and second, the data are based on having been previously diagnosed but Mexican immigrants have a higher than average rate of undiagnosed disease. The prevalence of these diseases is likely to be underestimated because of barriers that Mexican immigrants experience in obtaining medical care, including high rates of undocumented immigration, a disproportionately high incidence of poverty, low educational attainment, limited English proficiency and low levels of health insurance coverage and health service use.

This circumstance leads to fewer opportunities for diagnosis and therefore a lack of knowledge of this population's health problems. Disadvantaged groups experience greater difficulty in making regular visits to the doctor, which increases the likelihood that the diagnosis of a disease will depend on the development of severe symptoms, which in turn requires



Figure 50. Population ages 18 to 64 in the United States ever diagnosed with heart disease, cancer or hypertension, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.

medical care, while those who have mild symptoms or are at an asymptomatic stage of a disease do not have this incentive. Based on the above, it is important to view the results suggesting the relatively better health of Mexican immigrants with caution.

Mexican immigrants report a low prevalence of rheumatoid arthritis

Only six percent of nonelderly adult Mexicans reported suffering from rheumatoid arthritis and chronic inflammatory disease, which causes pain, stiffness, warmth, redness and inflammation (swelling) in the joints of the hands, feet, ankles, elbows, shoulders, hips, knees and neck, making it difficult to perform daily activities. A slightly higher percentage of immigrants from Central America and other regions have been diagnosed with this disease (9% and 10%, respectively). However, white non-Latinos and African-Americans have the highest incidence rate of rheumatoid arthritis (20%) (figure 51).

NHIS data reveal that ulcer is a disease that is less likely to be reported by adult Mexican and Central

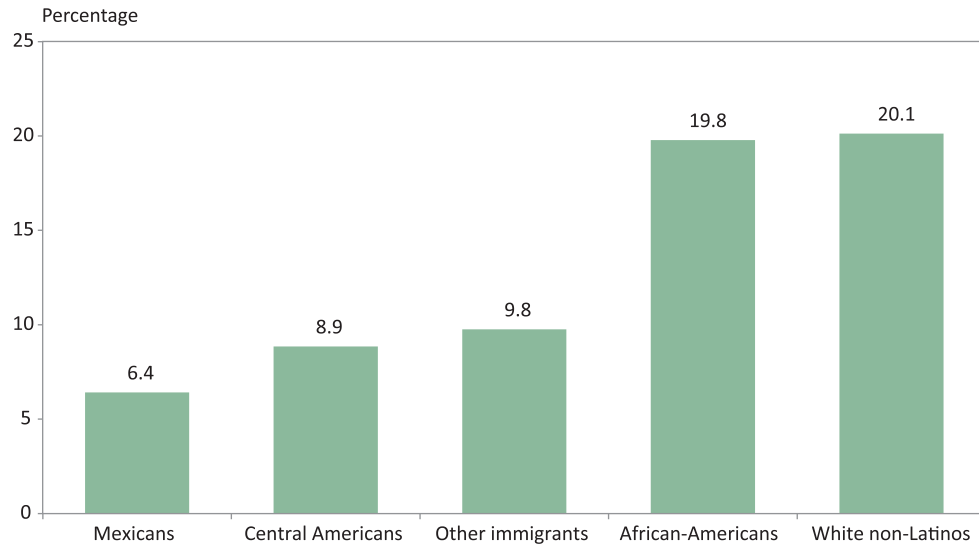
American immigrants: only four percent reported ever suffering from ulcer. This proportion is much lower than in white non-Latinos (7%) and African-Americans (6%) (figure 52).

Certain diseases such as diabetes and obesity are more common among Mexican immigrants

According to U.S. health statistics, nonelderly adult Mexicans with over ten years of residence in the United States have the highest prevalence rate of diabetes mellitus, along with African-Americans (10%), which is higher than that reported for the white non-Latino population and other immigrants. However, only one percent of recently arrived Mexicans (with fewer than ten years of residence in the United States) report having been diagnosed with this condition. Poor eating habits acquired in the United States, combined with the effects of inadequate medical monitoring, may encourage or accelerate the development of diabetes in this population. In fact, this is the fifth leading cause

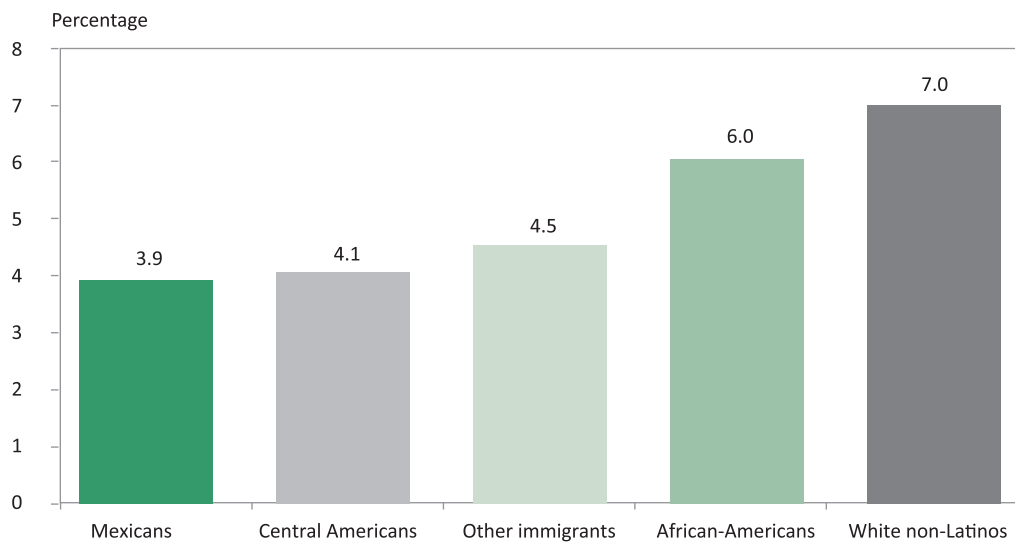


Figure 51. Population ages 18 to 64 in the United States ever diagnosed with arthritis, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.

Figure 52. Population ages 18 to 64 in the United States ever diagnosed with ulcer, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.



of death among the Latino population in the United States (both immigrants and U.S.-born).

Since diabetes is a disease that is usually detected after several years of evolution, as complications begin to appear, it is also likely that undiagnosed cases are relatively common in this group. It is also worth noting the high prevalence of this disease among the Central American population (9%) (figure 53).

Latinos diagnosed with diabetes, among which Mexicans are a majority perform tests to keep track of the disease less frequently

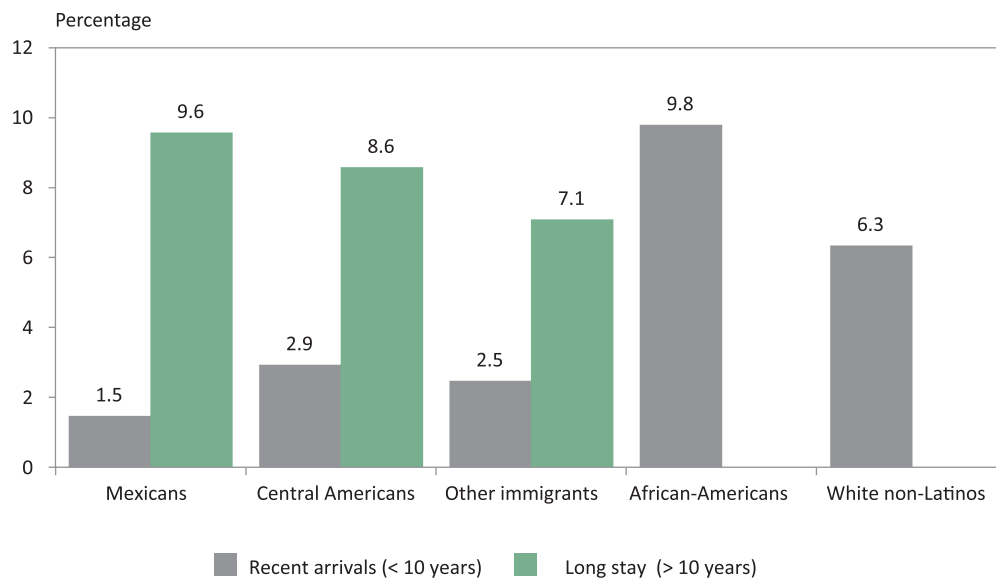
Diabetes is a serious disease requiring lifetime treatment and control, lack of which significantly increases the risk of developing severe complications, such as blindness, lower limb amputations, heart disease and

kidney disease, among others. Regular monitoring of this disease is therefore a crucial requirement for preventing such complications.

The *National Healthcare Disparities Report* includes information on the Latino population (immigrant and native-born combined), the majority of whom are of Mexican origin. According to the report, the Latino immigrant population in the United States has the lowest rates of medical tests at the recommended intervals for people diagnosed with diabetes, such as hemoglobin A1c (61%), vision tests (50%), foot examinations (58%) and influenza vaccines (51%) (figure 54).

Likewise, Latinos in the United States have high rates of hospitalization for serious complications resulting from uncontrolled diabetes. Approximately 34 out of every hundred thousand admissions to medical centers for this reason are Latinos, 62 out of every

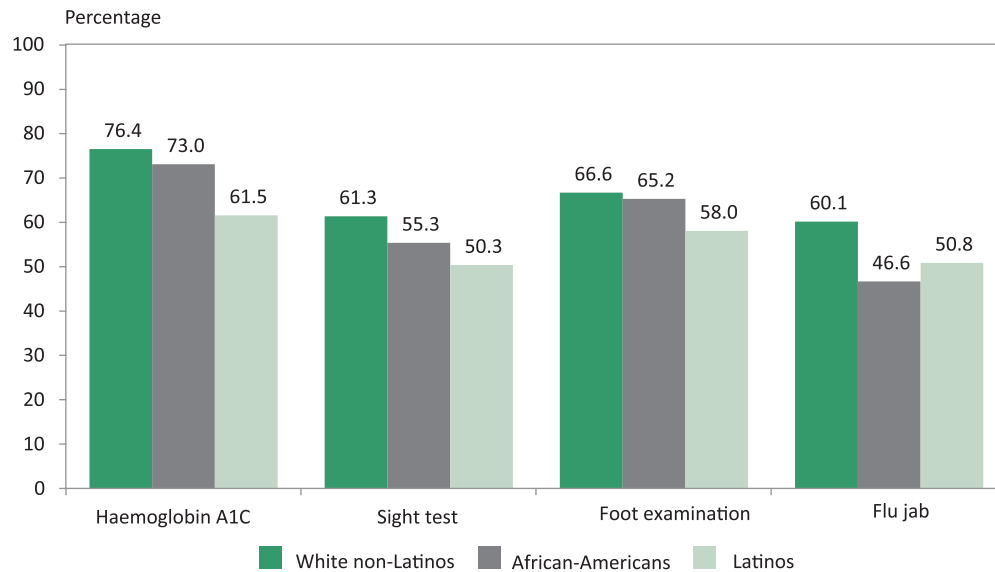
Figure 53. Population ages 18 to 64 in the United States ever diagnosed with diabetes, by region of origin and ethnicity or race, 2009-2011



Source: CONAPO estimates, based on *National Health Interview Survey (NHIS)*, 2009-2011.

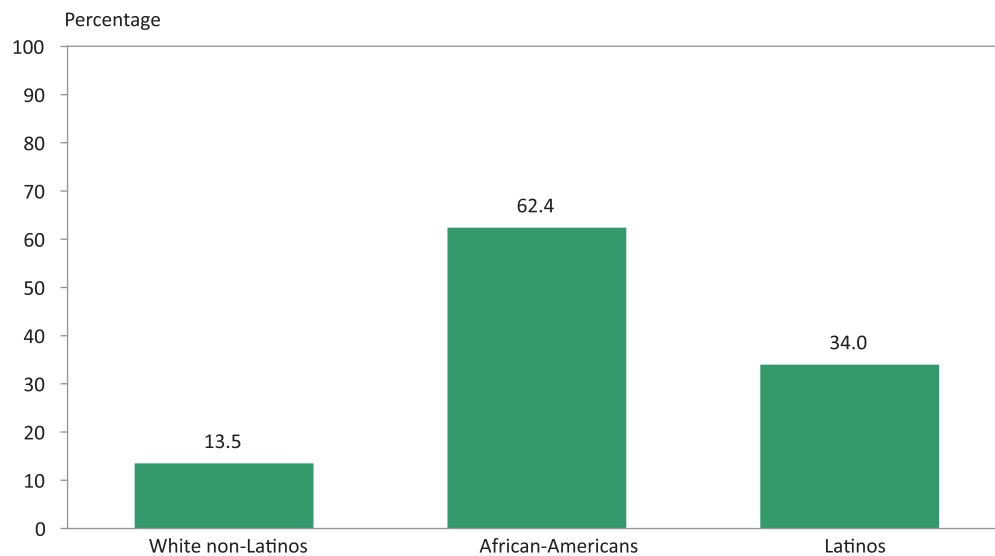


Figure 54. Population in the United States ages 40 and over diagnosed with diabetes that received all four services recommended for controlling the disease, 2009



Source: Drawn up by CONAPO, based on the *National Healthcare Disparities Report*, 2012.

Figure 55. Hospital admission rates of population ages 18 years or over with complications of uncontrolled diabetes, 2009



Source: Drawn up by CONAPO, based on the *National Healthcare Disparities Report*, 2012.



hundred thousand are African-Americans and 13 out of every hundred thousand are white non-Latinos (figure 55). This situation is closely related to the lack of medical monitoring and limited health care coverage of Latino immigrants, particularly Mexicans and Central Americans.

Mexican immigrants, like Central Americans, are more likely to be overweight or obese than other immigrants and white non-Latinos

Obesity is another health problem that seriously affects the population in the United States. Data indicate that Mexican immigrants, along with African-Americans and Central American immigrants, are by far the most likely to suffer from excess weight (74%, 74% and 69%, respectively).

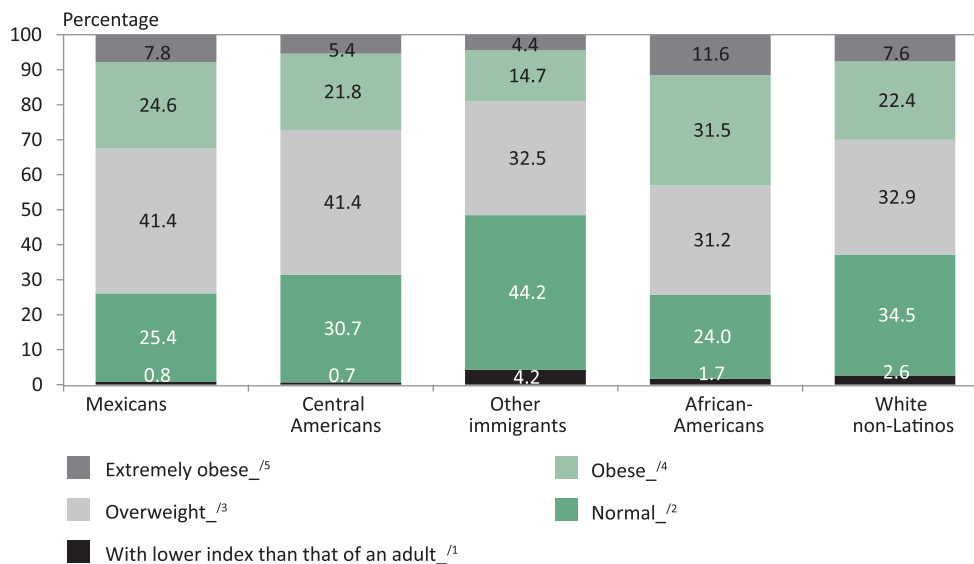
However, compared to African-Americans, the severity of excess weight is more moderate among Mexicans, since they tend to report more overweight (41%) than obesity (25%) and extreme obesity (8%),

while African-Americans report less overweight (31%) and more obesity (31%) and extreme obesity (12%). Likewise, the white non-Latino population suffers significantly from overweight (33%) and above all, obesity (30%) (figure 56).

Among the Mexican-born population, it is worrying that obesity and extreme obesity affect women more than men (35% and 30%, respectively), although both percentages are lower than those of the African-American population (figure 57). These data show that interventions to reduce overweight among Mexican immigrants are crucial to preventing far-reaching impacts on their health, since this disease can lead to the emergence of other conditions, such as diabetes and other cardiovascular diseases.

The data presented reveal the increased vulnerability of Mexican immigrants, and to a lesser extent of Central Americans as regards health in comparison with immigrants of other nationalities, white non-Latinos and African-Americans. Compared with other groups living in the United States, Mexicans have disadvantages in terms of health insurance coverage (over half do not

Figure 56. Population in the United States by type of body mass index categories, by region of origin and ethnicity or race, 2009-2011

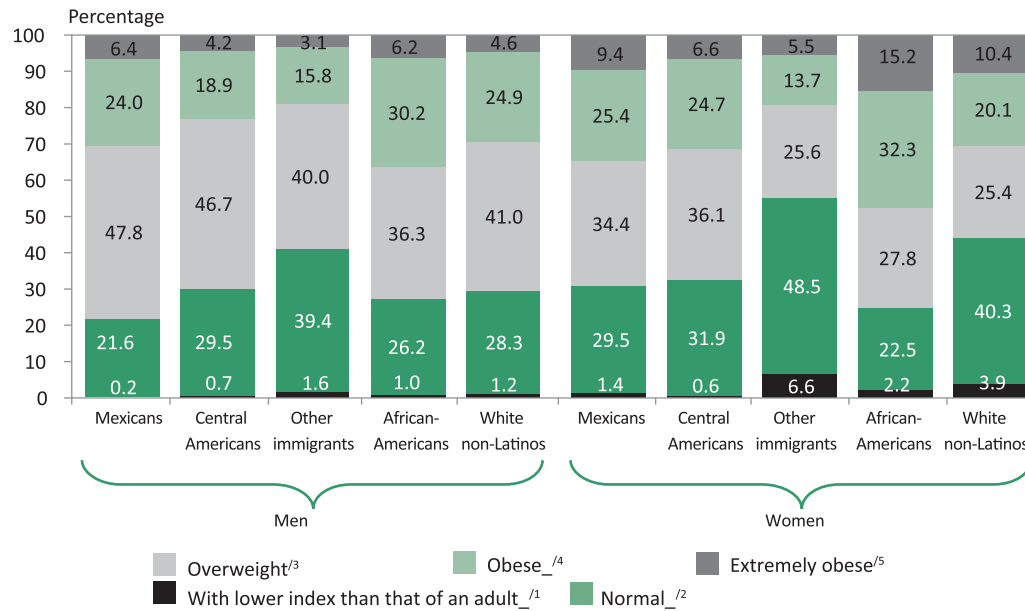


Notes: 1/ Index less than 19; 2/ Index between 19 and 24; 3/ Index between 25 and 29; 4/ Index between 30 and 39; 5/ Index between 40 and over.

Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.



Figure 57. Population ages 18 to 64 in the United States by sex and type of body mass index categories, by region of origin and ethnicity or race, 2009-2011



Notes: 1/ Index less than 19; 2/ Index between 19 and 24; 3/ Index between 25 and 29; 4/ Index between 30 and 39; 5/ Index between 40 and over.

Source: CONAPO estimates, based on National Health Interview Survey (NHIS), 2009-2011.

have this benefit) and receive, on average, less needed medical treatment and health care.

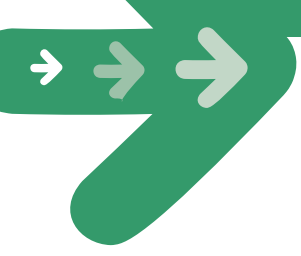
About 6.4 million Mexicans do not have either public or private health insurance to receive periodic medical attention, address their health problems, have timely medical check-ups or receive preventive care. This situation is even more serious in the case of Mexicans living in low-income families.

The results on the use of health services reveal significant differences by sex. In general, men have less access to health and medical services, with those from Mexico being in the worst situation, although women's condition is not entirely favorable, particularly when compared with that of white non-Latino and other immigrant women.

As for health conditions, the results indicate that while Mexican immigrants generally have better health than the U.S. population and other immigrants, they have a higher prevalence of diabetes mellitus, a situa-

tion that is a matter for concern since these conditions cause various long-term complications, such as heart disease, hypertension, blindness and limb amputation. These results are consistent with the high level of overweight and obesity among Mexican immigrants, since they are a risk factor for developing the disease.

Finally, Mexicans in the U.S. are extremely vulnerable to workplace injuries and illnesses, due to their disadvantaged insertion in the labor market, which, on one hand, employs them in occupations that involve higher risks to their health, and on the other, limits their access to benefits such as health care coverage.



CHAPTER IV IMMIGRANTS IN CALIFORNIA

INTRODUCTION

This chapter provides an in depth analysis of the situation of immigrants in California, the state in the U.S. with the largest immigrant population.¹ Nearly 23% of the 11.2 million undocumented immigrants in the U.S. are estimated to live in California in 2010.² Given the historical concentration of the undocumented immigrant population in California, this chapter highlights demographic, health and health care statistics for the state using data from the 2009 *California Health Interview Survey* (CHIS). CHIS is a population-based, telephone survey of California residents and includes

a measure of immigration status which allows comparisons between U.S.-born citizens, naturalized immigrants, legal permanent residents and undocumented immigrants.

*One in three residents in California
is an immigrant*

Among the 23.5 million Californians in 2009 ages 18-64, we estimate that two-thirds (66%) are native born, 17% are naturalized citizens, 10% are citizens with a

Table 3. California adult population, ages 18-64 years, by immigration status and country of birth, 2009

California Residents Characteristics	Citizenship/Immigration Status			
	U.S.-Born Citizen (N=15,393,000) %	Naturalized Citizen (N=3,866,000) %	Documented Immigrant (N=2,435,000) %	Undocumented Immigrant (N=1,782,000) %
Country of birth				
United States	100	--	--	--
Mexico	--	33.9	52.6	70.5
Central America	--	7.1	10.3	13.8
Other Latin American country	--	4.6	3.1	0.6
Asia or Pacific Island	--	44.3	22.1	13.5
Other	--	10.2	11.9	1.7
Total	100	100	100	100

Source: *California Health Interview Survey*, 2009.

¹ This chapter is based on *Undocumented Immigrants and Health Care Reform. Final Report to the Commonwealth Fund*, by Steven P. Wallace, Jacqueline Torres, Sadegh-Nobari Tabashir, Nadereh Pourat and E. Richard Brown, Los Angeles, University of California at Los Angeles, Center for Health Policy Research, 2012 (<http://healthpolicy.ucla.edu/publications/Documents/PDF/undocumentedreport-aug2013.pdf>).

² Jeffrey S. Passel and D'Vera Cohn, *Unauthorized Immigrant Population: National and State Trends*, 2010, Pew Hispanic Center.



green card, and 8% are undocumented. Among the nearly 1.8 million undocumented nonelderly adult immigrants, the vast majority (71%) are from Mexico; almost 14% more are from Central America. Thus, when discussing the situation of undocumented immigrant in California we are referring primarily to the situation of Mexicans and Central Americans. In contrast, the large-

est proportion of naturalized immigrants are from Asia and the Pacific Islands (44%) (Table 3).

Among immigrants from Mexico living in California, about one-third (33%) are undocumented. A similar proportion of Central Americans are undocumented (32%), while under 10% of Asian and Pacific Islander immigrants are undocumented.

Table 4. Adult California population, ages 18-64 years, by selected demographic and socioeconomic characteristics, 2009

California Residents		Citizenship/Immigration Status			
Characteristics		U.S.-Born Citizen (N=15,393,000) %	Naturalized Citizen (N=3,866,000) %	Documented Immigrant (N=2,435,000) %	Undocumented Immigrant (N=1,782,000) %
Gender					
Female		50.2	50.4	48.8	50.2
Age (years)					
18-24		21.4	6.2	7.2	10.3
25-34		18.6	15.2	22.6	43.6
35-44		19.1	26	37.3	34.6
45-64		40.8	52.6	33	11.4
Total		100	100	100	100
Federal Poverty Level					
0-99% FPL		11.2	11.5	31.6	56.6
100-199% FPL		13.5	22.3	30.9	21.5
200-299% FPL		13.6	16.9	11.1	8.7
≥ 300% FPL		61.7	49.3	26.4	13.2
Total		100	100	100	100
Educational attainment					
Less than High School		6.4	20.5	43.3	51.6
High School		27.6	19.9	21.4	25.2
Some College		29.4	17.9	12	7.6
Bachelor’s or more		36.6	41.7	23.4	15.7
Total		100	100	100	100
English use and proficiency					
Native speaker/very well		94.6	45.4	24.8	8.1
Well		5.1	30.4	22.6	17.4
Not well/not at all		0.3	24.2	52.6	74.5
Total		100	100	100	100

Source: California Health Interview Survey, 2009.



Undocumented immigrants' sociodemographic characteristics are unfavorable to maintain a good health

Undocumented nonelderly adult immigrants in California have a similar distribution of men and women (about equal proportions) as documented immigrants, naturalized citizens, and U.S.-born citizens (Table 4). Those without legal authorization to be in the U.S. differ in all of the other social and demographic characteristics shown. Undocumented immigrants are at the younger part of the age 18-64 distribution (54%), they are more likely to live in households with incomes under the federal poverty level than those in any other migration status, they are the most likely to have less than a high school education, and speak English not well or not at all. Low income, low education, and limited English are each considered risk factors for poor health in research on health status in the general population.

Despite that in California the cost of medical care is lower, there are still significant lags in health care coverage

Health insurance coverage varies substantially by immigration status. Among nonelderly adult undocumented

immigrants in California, about half (51%) have no health insurance (Table 5). In contrast, one-third of documented immigrants have no insurance and under one-fifth of naturalized and U.S.-born citizens are uninsured. Among those with insurance, undocumented immigrants are the least likely to have HMO coverage, which is most likely the result of their coverage through temporary (e.g. emergency Medicaid, a public source) and a limited selection of employer options (a private source). HMO insurance is common in California since it typically offers lower co-payments and deductibles at a lower premium cost, although the choice of medical providers is restricted.

Undocumented immigrants are the ones that go to the doctor less often

Undocumented nonelderly adults in California are the least likely to see a doctor in the previous year, with over one-third (34%) reporting no doctor visits. In contrast, under one-fifth (20%) of U.S.-born citizens reported no doctor visits (Table 6). The U.S.-born citizen population is older than the undocumented population and so would be expected to have more doctor visits. But even after adjusting for the age and gender composition of each population, a 15% gap remains in the proportion with no doctor visits between undocumented immigrants

Table 5. Health insurance coverage among California adults, ages 18-64 years, by citizenship and immigration status, 2009*

California Residents Characteristics	Citizenship/Immigration Status			
	U.S.-Born Citizen (N=15,079,000) %	Naturalized Citizen (N=3,771,000) %	Documented Immigrant (N=2,369,000) %	Undocumented Immigrant (N=1,706,000) %
Type of Health Insurance				
Public HMO	5.5	4.2	11.3	8.4
Public Non-HMO	7.1	6.1	7.7	14.9
Private HMO	40	49.5	28.6	12.9
Private Non-HMO	30.7	22.4	18.8	12.5
Uninsured	16.7	17.8	33.6	51.3
Total	100	100	100	100

Notes: * Unadjusted estimates.

Source: California Health Interview Survey, 2009.

**Table 6. Health care services utilization among California adults, ages 18-64 years, by citizenship and immigration status, 2009**

California Residents	Citizenship/Immigration Status			
Characteristics	U.S.-Born Citizen (N=15,393,000) %	Naturalized Citizen (N=3,866,000) %	Documented Immigrant (N=2,435,000) %	Undocumented Immigrant (N=1,782,000) %
Number of Doctor Visits Past Year				
No visits	19.8	20.3	27.5	34.3
1-4 visits	55	58.3	54.6	53.4
5 or more visits	25.2	21.4	17.9	12.3
Total	100	100	100	100
Visited the Emergency Room in the Past Year				
	19.7	15.6	16.5	12.7

Source: California Health Interview Survey, 2009.

and U.S.-born citizens. Undocumented immigrants are also significantly less likely to visit an emergency room in the past year. The lower use of both doctors and emergency rooms documents the inaccuracy of some claims that undocumented immigrants overuse health services.

The cost of insurance is the major barrier to obtain health care

Reports of barriers to obtaining needed medical care are the most common among U.S.-born citizens ages 18-64, where almost one-fifth report delaying care despite the fact that they are the most likely to have

insurance (Table 7). Focus group results suggest that undocumented and uninsured immigrants are more likely to say that they do not need medical care, even when sick, because they cannot afford it. Among those who reported a delay, undocumented immigrants were the most likely to cite cost as the reason for delay. In addition, among those with medical debt, all types of immigrants were more likely than U.S.-born citizens to report that their medical bills made it impossible for them to pay for all of their other necessities. This reflects both higher rates of uninsurance among immigrants leading to higher out of pocket costs, as well as lower incomes that leave little or no discretionary spending that can be reduced in the face of medical bills.

Table 7. Barriers to health care service utilization among California adults, ages 18-64 years, by citizenship and immigration status, 2009

California Residents	Citizenship/Immigration Status			
Characteristics	U.S.-Born Citizen %	Naturalized Citizen %	Documented Immigrant %	Undocumented Immigrant %
Delayed getting needed medical care in past 12 months	19.2	13.5	11.7	8.4
Delayed because of cost or no insurance¹	62.5	56.3	66.3	82.4
Unable to pay for other basic necessities due to medical bills²	25.7	35	45.8	37.4

Notes: 1/ Among 3,912,000 adults who delayed or did not get needed medical care in the last 12 months.

2/ Among 2,814,000 adults who are paying off medical bills or could not pay medical bills.

Source: California Health Interview Survey, 2009.



Undocumented immigrants consume less alcohol and tobacco than other groups, but have worse eating habits

Behaviors that increase the risk of disease and disability include smoking, binge drinking, poor diets, and obesity. Smoking rates are lowest among immigrants (Table 8), despite the fact that smoking rates overall decline with income and immigrants have lower incomes. When only examining low-income persons, the smoking rates of each immigrant group remains relative stable while the rate for U.S.-born citizens increases to almost 24%, widening the native born-immigrant gap.

Binge drinking is also most common among U.S.-born citizens, with over one-third of U.S.-born Califor-

nia residents age 18-64 reporting binge drinking two or more times in the past year. Dietary habits are not as favorable. Almost half (45%) of undocumented residents and one-third of U.S.-born citizens fall into the lowest consumption quartile for healthy foods (fruits and vegetables), while one-third of both undocumented and U.S.-born residents are in the highest quartile for unhealthy food consumption (e.g. sugar soda, fast food, and sugary desserts). Obesity rates are similar for U.S.-born and undocumented residents (about one-quarter of each), and lower for other immigrant groups. Overall, immigrants have favorable health behavior patterns, although undocumented immigrants are not as favorable as other immigrant categories.

Table 8. Health behaviors of California adults, ages 18-64 years, by citizenship and immigration status, 2009

California Residents	Citizenship/Immigration Status			
	U.S.-Born Citizen (N=15,393,000) %	Naturalized Citizen (N=3,866,000) %	Documented Immigrant (N=2,435,000) %	Undocumented Immigrant (N=1,782,000) %
Current Smoker	16	9.8	13.7	14.1
Binge drinker¹	35.9	19.8	21.9	23.4
Lowest consumption of healthy food²	34.9	30.9	33.7	45.2
Highest consumption of unhealthy food³	35.6	22.2	28	33.5
Weight				
Underweight/Normal	44.4	47.2	41.3	38.1
Overweight	31.4	35.3	38.9	36.1
Obese	24.2	17.5	19.8	25.8
Total	100	100	100	100

Notes: 1/ Someone who has binged 2 or more times in the past year. For a man, bingeing refers to drinking 5 or more alcoholic drinks in a day and for a woman it refers to drinking 4 or more alcoholic drinks in a day.

2/ Lowest quartile of consumption of fruits and vegetables per week.

3/ Highest quartile of consumption of soda, fast food, French fries, cakes, cookies, pies, ice cream, and frozen desserts per week.

Source: California Health Interview Survey, 2009.



Notwithstanding that they do not reported high prevalence rates of chronic diseases, immigrants are much less likely to identify their health as very good

Immigrants are less likely to report very good or excellent health than U.S.-born citizens. Undocumented immigrants report the lowest rate (28%) (Table 9). This health status disadvantage largely disappears when only those who speak English well are included. Reported levels of common chronic diseases is complex. Reported asthma is highest among U.S.-born citizens and lowest among undocumented immigrants. Dia-

betes is highest among documented noncitizens, high blood pressure is highest among naturalized citizens, and heart disease is relatively similar across groups. Some of the lower rates of diagnosed chronic conditions among undocumented immigrants may be the result of the lower access to health care among this group which could lead to high rates of undiagnosed conditions among the undocumented. Never the less, the trend toward lower rates of reported chronic conditions and better health behaviors are consistent with the literature that finds that recent immigrants are generally healthier than those born in the U.S. who are in similar socioeconomic conditions.

Table 9. Health status of California adults ages 18-64 years by citizenship and immigration status, 2009

California Residents Characteristics	Citizenship/Immigration Status			
	U.S.-Born Citizen (N=15,393,000) %	Naturalized Citizen (N=3,866,000) %	Documented Immigrant (N=2,435,000) %	Undocumented Immigrant (N=1,782,000) %
Health Status				
Poor, fair or good health	39.7	50.7	64.7	72.3
Very good or excellent health	60.3	49.3	35.3	27.7
Total	100	100	100	100
Ever had asthma	17.4	8.9	6.2	3.9
Diabetes	5.4	8.5	12.1	4.4
Heart Disease	3.5	3.2	4.1	3.5 ^a
High Blood Pressure	20.6	23.1	19.4	14.1

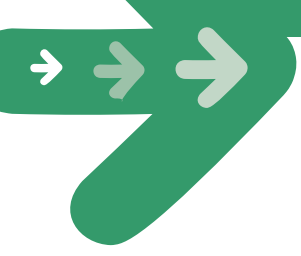
Note: a/ Estimate is unstable. Based on a coefficient of variation ≥ 0.30 .
Source: California Health Interview Survey, 2009.

Undocumented immigrants in the United States are explicitly excluded from the expanded access to health care provided by the Patient Protection and Affordable Care Act (ACA), also known as Health Care Reform or informally as Obamacare. Current immigration reform proposals retain that exclusion for undocumented immigrants who regularizing their status until they become U.S. Citizens ten or more years later. As a result, the ACA will have little or no impact on health insurance coverage for undocumented residents.

The data presented here from California show that undocumented residents are most often young adults, in good health, and have low use of health services, but face barriers posed by existing laws and policies that prevent appropriate use of health care. Ways to improve access that would help these immigrants maintain their good health include expanding full ACA coverage to all U.S. residents include undocumented residents, creating public or low-cost insurance for all those not otherwise insured under the ACA, expand-



ing specific free or low cost health services, improving compensation for providers that provide uncompensated care, and assuring that any eventual immigration reform's pathway to citizenship includes access to affordable health services either in the U.S. or across the border.



CONCLUSIONS

Like most people who need to leave their country in search of new opportunities, Mexican immigrants go to the United States filled with hopes and dreams, looking to improve their life situation and wellbeing. However, throughout the length of their stay in the U.S., they face great challenges related primarily to their legal status and social integration that threaten their health and safety. This report shows both the importance of Mexican immigration to the economic and social fabric of the US and how their contribution is limited by the obstacles they face.

Currently, almost twelve million Mexicans live in the U.S., who comprise, by far, the largest immigrant minority. Their unfavorable labor and social integration processes are largely determined by their disadvantages in terms of documentation status, with more than half having undocumented status and just over a quarter having obtained citizenship. In addition, they face challenges due to their low educational attainment and limited English proficiency, among other characteristics.

Immigrants' access to health insurance derives from how the host society fails to integrate them into existing social protections, despite their high level of labor force participation. One consequence is that Mexican immigrants often face substantial barriers to accessing the U.S. health care system, both private and public. Indeed, compared to other immigrant groups and natives, Mexicans have great disadvantages in terms of health insurance coverage in all stages of the life cycle. They also receive, on average, less medical attention and health care.

These problems can be mitigated by reducing the obstacles that hinder access to health services.

The lack of documentation is the main factor that contributes to labor segmentation and social exclusion of Mexicans in the U.S. The most effective solution would be to regularize the status of this population, which would improve integration and social mobility.

The results of this report indicate that the Mexican population has a lower prevalence of chronic diseases such as cancer, hypertension, asthma and cardiovascular disease, compared to other ethnic or racial groups, which, in part, could be associated with its younger age structure. However, it is also possible that the prevalence of diseases is higher than that recorded in the statistics, precisely because there is underdiagnosis related to immigrants' limited health insurance coverage, greater financial difficulties to cover the costs involved, fear about immigration status, or with health literacy problems and difficulty navigating a health care system that is increasingly more complex and automated.

Even so, among the Mexicans there is a high prevalence of some chronic diseases, such as diabetes, compared to other immigrant groups and natives. This is a particularly alarming situation in the case of those who do not have the health insurance that is necessary for continuous monitoring and care that could minimize the health impact of the disease. In addition, the high prevalence of overweight and obesity among Mexicans stands out as a health risk that merits special attention.

The case of the state of California is interesting to study because it highlights the differences between documented immigrants, undocumented immigrants and the native-born, and shows the



multifaceted nature of social exclusion faced by undocumented migrants, which affects Mexicans more than any other group. Nearly one in four undocumented immigrants living in California (23%), and among them, seven in ten were born in Mexico (70.5%). As is the case nationwide, the average age of undocumented immigrants living in California is lower, they are more likely to be living on low incomes, are among the least educated and often do not speak English or do not speak it well. Although they are young, they live subject to multiple factors related to health problems. This situation represents, above all, a missed opportunity to incorporate healthy people into the health system and preserve their health and productivity.

Focusing specifically on the Mexican immigrant population in a culturally and linguistically appropriate manner presents an opportunity to create a model for programs and health clinics that provide health services to marginalized groups. However, the reform of policies that divide and segment immigrant groups, with and without right to public health services, is equally important. There is great potential to tap into the health capital of Mexican immigrants to integrate them into the health care system of the United States, through social programs and policies that help eliminate social divisions.

Both health care reform and immigration reform can play a key role in this opportunity. Both reforms

are complementary. In 2014 the Affordable Care Act will integrate millions of newly insured Latinos, including many lawful permanent resident (LPR) Mexican immigrants, into the health system. This will undoubtedly improve the health of many Latino communities. However, the exclusion of undocumented immigrants from Medicaid, health insurance subsidies, and even the health insurance exchanges under the ACA will leave millions of Mexican immigrants without coverage. This provision will impact Mexican immigrants more than any other immigrant group, contributing to further social exclusion. Therefore, comprehensive immigration reform is needed to regularize the status of undocumented immigrants so they can start the process to obtain citizenship and extend their social rights. Access to affordable health care will help them to lead healthier, more productive lives, and this will have a positive impact on American society.

Expanding access and quality of health services for immigrants living in the U.S. also represents an opportunity for immigrants' countries of origin, including Mexico, for immigrants make significant economic and social contributions to both sending and receiving countries. Pursuing good health is the right of all human beings, and providing the means for realizing the right to health is, certainly, a binational responsibility.



References

- Barcellos, Silvia Helena *et al.*, (2013), “Undiagnosed Disease, Especially Diabetes, Casts Doubt on Some of Reported Health ‘Advantage’ of Recent Mexican Immigrants”, *Health Affairs*, 31(12):2727–2737; doi:10.1377/hlthaff.2011.0973.
- Consejo Nacional de Población (2012), *Migración y Salud. Jóvenes inmigrantes mexicanos en Estados Unidos*, México, Consejo Nacional de Población.
- (2010), *Migración y Salud. Inmigrantes mexicanos en Estados Unidos*, México, Consejo Nacional de Población.
- (2009), *Migración y Salud. Los hijos de migrantes mexicanos en Estados Unidos*, México, Consejo Nacional de Población.
- (2008), *Migración y Salud. Latinos en los Estados Unidos*, México, Consejo Nacional de Población.
- Consejo Nacional de Población, Secretaría Trabajo y Previsión Social, Instituto Nacional Migración, Secretaría de Relaciones Exteriores, El Colegio de la Frontera Norte (2010), *Encuesta sobre Migración en la Frontera Norte de México (EMIF NORTE)*, Módulo de Salud, México.
- Genevieve M. Kenney, *et al.*, (2013), “State and Local Coverage Changes under Full Implementation of the Affordable Care Act, Menlo Park, Kaiser Family Foundation, Pub. núm. 8443, en: <http://kff.org/health-reform/report/state-and-local-coverage-changes-under-full-implementation-of-the-affordable-care-act/>.
- Centers for Disease Control and Prevention, *National Health Interview Survey (NHIS)*, 2009, 2010 y 2011, Washington, Centers for Disease Control and Prevention, en: <http://www.cdc.gov/nchs/nhis.htm>.
- Centers for Disease Control and Prevention, National Center for Health Statistics (2013), *National Vital Statistics System*, Maryland, United States, en: http://205.207.175.93/Vitalstats/ReportFolders/reportFolders.aspx?sCS_referer=&sCS_ChosenLang=en.
- Passel, Jeffrey S. y D’Vera Cohn (Feb, 2011), *Unauthorized Immigrant Population: National and State Trends, 2010*, Pew Hispanic Center, Pew Research Center, en: <http://www.pewhispanic.org/files/reports/133.pdf>.
- University of California at Los Angeles, Center for Health Policy Research, *California Health Interview Survey (CHIS)*, 2009. <http://healthpolicy.ucla.edu/chis/Pages/default.aspx009>.
- United States Department of Health and Human Services (2012), *National Healthcare Disparities Report*, No. 13-0003, Maryland, United States, en: <http://www.ahrq.gov/research/findings/nhqrdr/nhdr12/2012nhdr.pdf>.
- United States Census Bureau, Census 1970, 1980, 1990, 2000, en: <http://www.census.gov/>.
- , American Community Survey (ACS). Microdata, 2012, en: <http://dataferrett.census.gov/>.
- , Current Population Survey (CPS). Microdata. 1994-2012, en: <http://dataferrett.census.gov/>.
- United States Census Bureau, United States Department of Labor (2013), *Census of Fatal Occupational Injuries (CFOI), Current and Revised Data*, Washington, D.C.
- (2011), *Survey of Occupational Injuries and Illnesses in Cooperation with Participating State Agencies*, Washington, D.C.
- Wallace, Steven P., *et al.* (2012), *Undocumented Immigrants and Health Care Reform. Final Report to The Commonwealth Fund*, de Los Angeles, Universidad de California en Los Ángeles, Centro de Investigación en Salud Pública, en: (<http://healthpolicy.ucla.edu/publications/Documents/PDF/undocumentedreport-aug2013.pdf>).

