Who Are the Uninsured?

Howard Eng

The Andersons are a family of four. Jim Anderson is 35 years old and works for a local taxi company. The company offers health insurance only to full-time employees (minimum of 40 hours per week), but Jim could not afford the 40% employee premium contribution, so he decided not to purchase the company's health insurance plan. Liz Anderson is 33 years old and works part time (20 hours per week) for a local gift shop that does not offer health insurance benefits to their employees. Jim and Liz have two children; Sally, 13 years old, and Bud, 10 years old. The Andersons are an uninsured family who are not eligible for the Medicaid program because their family income is too high. Although the children would be eligible for the State Children's Health Insurance Program, Jim and Liz decided not to enroll the children because of the costly monthly premiums.

The Andersons do not have a personal family physician, but use the local Community Health Center once in a while. Although the Community Health Center offers a sliding scale for the Andersons, they rarely use it unless there is an urgent health issue or something is required for work or school.

Last year, Jim was sick with a respiratory infection in mid February. He delayed seeing a medical provider due to the cost. After missing several days of work, Jim decided to go to the Emergency Room (ER) at the local community hospital. The ER physician wrote two prescriptions, an antibiotic and a cough medicine. The antibiotic was written for 14 days of an expensive brand name product; Jim decided to fill and take only half of the prescription. His infection became much worse and he was admitted to the hospital for 10 days of treatment. The cost of hospitalization was more than $5,000 since the Andersons did not have health insurance and had to pay the full amount out-of-pocket. They had to use their entire savings account to pay one-third of the hospital bill, and agreed to pay the remainder over the next 24 months. In addition, Jim lost 2 weeks of pay as a result of his hospitalization. This single medical event, along with being medically uninsured, has put the Andersons on the brink of bankruptcy for the intermediate future, and fearful of any other medical problems.

H. Eng
Division of Community, Environment and Policy and Rural Health Office, University of Arizona, Mel and Enid Zuckerman College of Public Health, Tucson, AZ, USA

N.J. Johnson and L.P. Johnson (eds.), *The Care of the Uninsured in America*,
DOI 10.1007/978-0-387-78309-3_1,

Introduction

The U.S. Census Bureau reported in 2007 that 45.3 million (15.3%) people living in the United States (US) did not have health insurance (U.S. Census Bureau 2007a). There was a decrease in the medically uninsured of about 2 million from the previous year as 3 million more people received medical coverage under government programs (U.S. Census Bureau 2007a). The number of medically uninsured native-born people decreased, while the number of foreign-born people stayed the same. The percentage of people covered by private insurance decreased marginally from 67.9 to 67.5% during the same year, while the percentage of people covered by employment-based insurance also decreased, from 59.7% in 2006 to 59.3% in 2007 (U.S. Census Bureau 2007a). Between 2001 and 2006, the US uninsured population increased by 7.2 million (18.2%), an average increase of the uninsured population of 1.2 million per year (3.0%). Figure 1 shows the 7-year uninsured trend.

In addition to the large number of medically uninsured people in the US, the economic impact of this population is even more staggering. Nationally, those who are medically uninsured for any part of 2008 will spend a total of $30 billion out-of-pocket for healthcare services; they also receive about $56 billion in uncompensated care. Included in this number are the resources provided by philanthropic foundations and organizations along with many health professional volunteers (Hadley et al. 2004).

This chapter will define *key terms* related to the medically uninsured, consider the various methodologies used to count the medically uninsured population, discuss

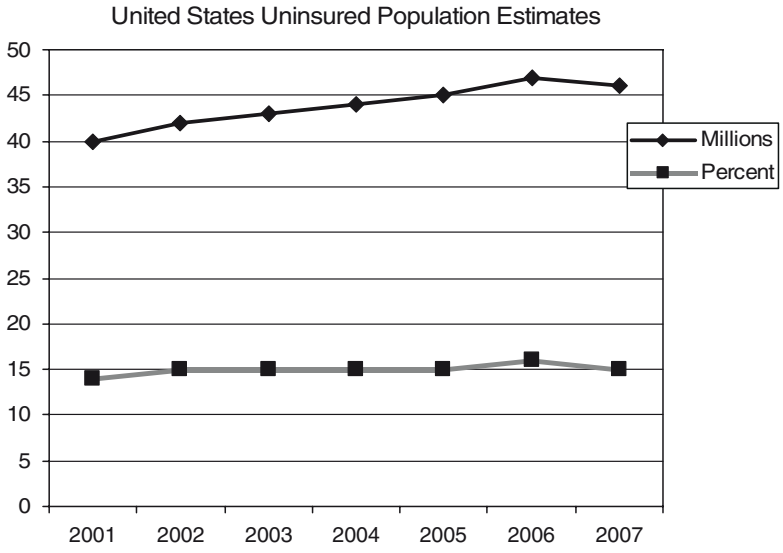


Fig. 1 United States uninsured population estimates

the impact of the number of medically uninsured individuals including the economic consequences for community, state, and national programs, as well as provide a picture of medically uninsured populations in the US.

Medically Uninsured: Definitions

Many definitions are possible in considering medically uninsured populations; the most straightforward definition is that of residents of the US who do not have health insurance coverage. The complicating factors of assessing the problem of lack of health insurance begins when we consider those who are uninsured for a short period of time, those who are children, those who are adults and do not qualify for governmental programs, those who are pregnant – and the list continues with the variety that comprises our nation. As discussion continues, the uninsured will be the diverse large number of residents in our country who do not have health insurance coverage. This is a different frame of reference from access to healthcare. Other definitions needed to fully understand the issues include: federal poverty guidelines, healthcare "safety net," health disparities and medical homes.

The federal poverty guidelines are established and published annually in the Federal Register by the Department of Health and Human Services (2005). These are the guidelines utilized to determine if uninsured individuals are eligible for state and federal programs.

The *healthcare "safety net"* was defined by the Institute of Medicine (2000) as:

"…those providers who organize and deliver a significant level of healthcare and other health-related services to uninsured, Medicaid and other vulnerable patients." The Institute of Medicine also took it a step further by identifying the concept of core safety net providers as having two distinguishing characteristics. These are: "…by legal mandate or explicitly adopted mission, they maintain an "open door" offering access to services to patients regardless of their inability to pay; and secondly, a substantial share of their patient mix is uninsured, Medicaid, and other vulnerable patients (Institute of Medicine 2000)."

As the uninsured are further described, *health disparities* are frequently referenced in terms of their existence in a population and potential methods in which they may be reduced. The Agency for Healthcare Research and Quality U.S. DHHS (2008) defines health disparity populations as "populations in which there is significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rates as compared to the health status of the general population (U.S. DHHS 2008)."

Lastly, the concept of a *medical home* is newly popular in addressing the challenges in caring for the uninsured. The term medical home was first used in the 1960s to define the care coordinated for special needs children. A medical home, according to the American College of Physicians (2004) ,is identified as a patient-centered, provider-guided, cost-effective, longitudinal relationship for care which

strives to avoid episodic, emergent and expensive healthcare utilization. In regards to the medically uninsured population, this definition of medical home applies the added features of coordinating an interdisciplinary team to manage needed care, more focus on health promotion and disease prevention and utilizing various staff members and models to further engage this frequently vulnerable population.

Counting the Medically Uninsured

The national and state uninsured figures reported in the literature vary depending on the results of the different health surveys and the definition used for medically uninsured. There are many *different* definitions used by health policy researchers, dependent on the data sources. A review of seven national surveys that include health insurance coverage questions showed differences in sampling methods used, the sampling numbers used, the over sampling of minority populations, the pooling of multiple years of survey data, types of healthcare coverage included in the survey, time period of being uninsured, and the release date of findings (refer to Fig. 2 for comparison summary). The surveys reviewed include: (1) Behavior Risk Factor Surveillance Survey – BRFSS, (2) Current Population Survey (CPS), (3) Community Track Survey – CTS, (4) National Health Interview Survey – NHIS, (5) National Survey of American Family – NSAF, and (6–7) Survey of Income and Program Participation #1 and #2 – SIPP #1 and #2.

As a result of these differences, each survey will report its *own* estimates. In 2005, the uninsured percentages for those below 65 years of age reported from four surveys ranged from 14.5 to 19.5 (Fig. 3). The CPS reported the uninsured percentage as 17.2, while the BRFSS reported as 14.5, MEPS reported as 19.5, and NHIS reported as 16.4 (U.S. Census Bureau 2007a; U.S. Census Bureau 2007b; Centers for Disease Control and Prevention 2007a, b; Rhoades 2006). However, the primary characteristics of the uninsured reported are fairly consistent.

The CPS data that is used by the U.S. Census Bureau is the most common used data source by health policy researchers (e.g., The Access Project, Center for Risk Management and Insurance Research, Commonwealth Fund, Employee Benefit Research Institute, The Henry J. Kaiser Family Foundation, The Urban Institute, and Institute of Medicine, and William M. Mercer, Incorporated) to estimate uninsured rates at the federal and state levels. The estimates can be used to determine the state level estimated uninsured rate trends over time and to compare the states' uninsured rates for the 50 states. CPS estimates are consistent, available on an annual basis, and are useful for examining health insurance trends.

The primary purpose is to collect labor force data on the civilian non-institutional population 16 years of age and older. In participating housing units, respondents are asked about both their and other household member enrollment in any of multiple private or public health insurance programs in the previous calendar year. The data are collected every March. The CPS collects data about employment-based health insurance, individually purchased health insurance, Medicare, Medicaid, Military,

Veterans Administration, Indian Health Service, and state-specific health programs. It is currently being used to allocate federal funding for the State Children's Health Insurance Program (SCHIP) to states, and to evaluate the effectiveness of SCHIP in reducing the number of uninsured children (Eng et al. 2002).

The CPS is the *only* ongoing survey that provides an annual estimate of health insurance coverage that can be used for national as well as cross-state comparisons. However, states using the CPS data should understand the type of information it can provide and how best to present estimates given that the data this survey provides are limited due to sample size and questionnaire design (e.g., overestimate the uninsured by including those who were uninsured during a short period of time, does not capture gaps or overlaps of coverage during the calendar year, may underestimate public program coverage such as Medicaid, and does not capture publicly funded health programs of state).

National Surveys	Year	Uninsured	Sample Size	Time Frame of Uninsured Estimate	State Estimates	Other Limitations
BRFSS	1998	22 millions	120,000	Uninsured at the time of interview.	All	Children and other members of household not included in survey.
CPS	March 1999	44 millions	116,000	Uninsured throughout calendar year.	All	Some states have small sample sizes.
CTS	July 1996-July 1997	35 millions	60,000	Uninsured at time of interview.	Not Possible	
MEPS	March-June 1996	44 millions	24,000	Uninsured throughout 3-6 month period.	Possibly Some	Data must be accessed thru NCHS Data

Fig. 2 Seven national health insurance coverage surveys comparison on counting the uninsured

						Center.
NHIS	1997	41 millions	103,477	Uninsured at time of interview.	All	Some states have small sample size.
NSAF	Feb.-Nov. 1997	36 millions	110,000	Uninsured at time of interview.	13	Only thirteen states are included.
SIPP #1	1994	19 millions	47,000	Uninsured throughout calendar year.	41 and DC	Many states have small sample size.
SIPP #2	Oct. 1994 - Sept. 1995	31 millions	47,000	Average monthly uninsured	41 and DC	Many states have small sample size.

Source: Paul Fronstin, May 5, 2000, Health Insurance Coverage Survey Matrix Comparison.

BRFSS = Behavior Risk Factor Surveillance Survey

CPS = Current Population Survey

CTS = Community Track Study

MEPS = Medical Expenditure Panel Survey

NHIS = National Health Insurance Survey

NSAF = National Survey of American Family

SIPP = Survey of Income and Program Participation

Fig. 2 (continued)

Depending on state, the CPS may or may not be used to make precise within state estimates of insurance coverage. Because of small sample sizes and the fact that the CPS sample does not include all Primary Sampling Units (a unit composed of a metropolitan area, a large county, or a group of neighboring smaller counties)

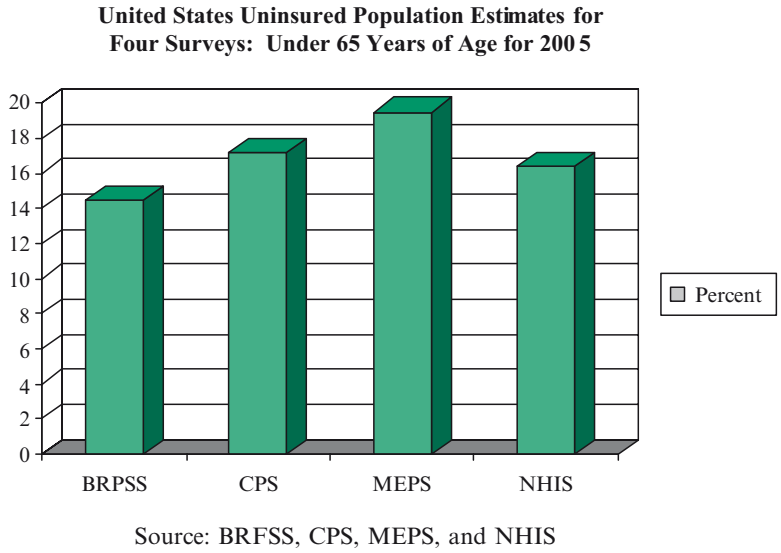


Fig. 3 United States uninsured population estimates for four surveys: Under 65 years of age for 2005

or counties within each state, analysis may have an unacceptable amount of error. For example, it is often *not* possible to make uninsured population estimates for each county within a state because not all counties are included in the sample. In addition, small sample size may make precise estimates for specific population groups defined by age, race, or county of origin difficult.

Because of sample size limitations, it has been suggested that researchers use 3-year rolling averages of CPS estimates when reporting health insurance coverage rates within states. Pooling 3 years of sample from a specific state *can* reduce the amount of sampling errors associated with specific state coverage and allows more precise estimates of coverage for a specific state to be made. Even with its limitations, the CPS is the most commonly used data source in reporting and monitoring the US' uninsured rates and figures.

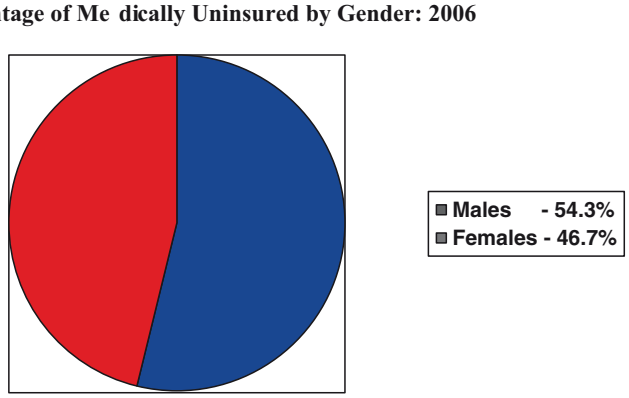
In this book, we will use the most recent Current Population Reports of the US Census Bureau (U.S. Census Bureau 2008) as the primary data source.

Pictures of Medically Uninsured Populations

The medically uninsured population in the US is not a single, homogeneous population which can easily be identified; it also consists of a number of smaller subpopulations. In this section, a brief overview of the medically uninsured population by gender, age, race/ethnicity, citizenship, income, employment, geography, and rural/urban residency will be provided.

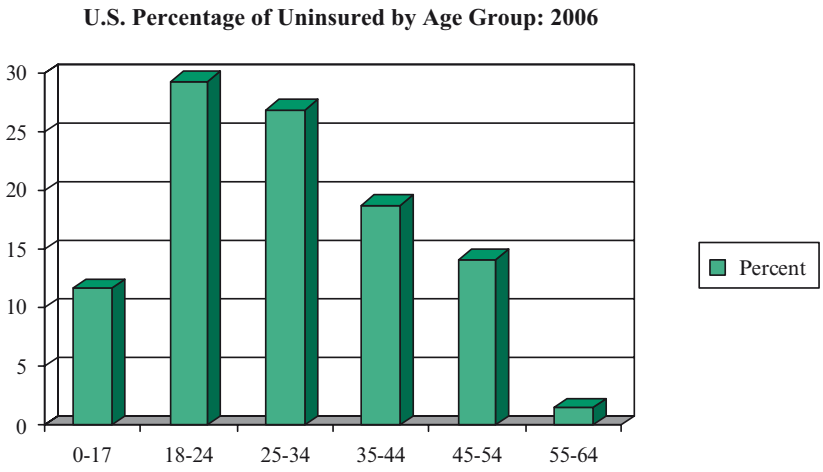
Gender: The CPS, BRFSS, NIHS, and MEPS reported that men are more likely to be uninsured than women (U.S. Census Bureau 2007a; U.S. Census Bureau 2007b; Centers for Disease Control and Prevention 2007a, b; Rhoades 2006). Figure 4 below shows the male and female uninsured percentages for 2006 (U.S. Census Bureau 2007a). The Kaiser Commission in 2000 reported that low-income men are the most likely to be uninsured than low-income women because of the Medicaid's eligibility requirements (Kaiser Commission on Medicaid and the Uninsured 2001). The population groups that are primarily targeted by Medicaid are children, parents of dependent children, pregnant women, the disabled, and the medical indigent elderly. On an average, women have lower incomes than men; thus, they have greater difficulty paying health insurance premiums (Patchias and Waxman 2007). Women also are less likely than men to have health coverage through their own employer and more likely to obtain coverage through their spouses (Patchias and Waxman 2007).

Age: In 2006, the uninsured are more likely to be young (DeNavas et al. 2007). Figure 5 shows that 67.9% of those under age 35 are uninsured. Young adults in the age group of 18–25 are more likely to be uninsured (29.3%) than the other five age groups. The primary reasons for the high risk of uninsured in this group are: (1) having low paying jobs that do not provide for employer-sponsored health insurance or employee cost-sharing, health-sharing portion is not affordable, (2) seeing themselves as indestructible ("Superman effect") with no need for health insurance, (3) determining health insurance is not a high priority need, and (4) losing Medicaid and SCHIP children eligibility at age 19 and may not qualify as an adult under Medicaid. A 2004 Commonwealth Fund study found that employers who offer health coverage, nearly 60% do not insure dependent children over age 18 or 19 if they do not attend college (Patchias and Waxman 2007). Those in 25–34 age group are the next highest uninsured group (26.9%).



Source: U. S. Census Bureau: Health Insurance Historical Table HI10

Fig. 4 U.S. Percentage of medically uninsured by gender: 2006



Source: U. S. Census Bureau: Health Insurance Historical Table HI10

Fig. 5 U.S. Percentage of uninsured by age group: 2006

Most elderly are covered by Medicare. Only a small percentage of elderly are uninsured (1.5%). There are several reasons for not qualifying under Medicare: (1) may not have accumulated the requisite 10 years of Medicare-qualifying employment, (2) certain job positions are ineligible for Medicare such as domestics or farm laborers, (3) household income too low to buy into Medicare, and (4) ineligible because of citizen status (Okoro et al. 2005). Medically uninsured elderly populations will be further addressed in a later chapter.

The percent of uninsured increased by 2.2 million in 2006, largely due to a decline in employer-sponsored insurance (DeNavas et al. 2007). Of the 2.2 million, 2.1 million were non-elderly (1.4 million were adults and 710,000 were children – under 18 of age) and 100,000 newly uninsured elderly (Holahan and Cook 2007). Although Medicaid and Children Health Insurance Programs are available to many children, 11.7% of their age group are still uninsured. Of the 710,000 newly uninsured children, 70% were in families with incomes at 200% or more of the federal poverty level (FPL) (Holahan and Cook 2007). The largest growth of uninsured children occurred between 200 and 399% of the FPL.

Race/Ethnicity: In 2005, the uninsured are more likely to be Whites than other races or ethnicities, comprising about half of the uninsured US population (48%) (DHHS 2005). However, minorities (Hispanics, American Indians, Blacks, Asian-Pacific Islanders) are more disproportionately uninsured than Whites (*see* Fig. 6 for details). The highest minority with disproportionately uninsured rates are the Hispanics (32.7%) followed by the American Indian population (31.4%). Even though most American Indians have access to the Indian Health Service they still have high uninsured rates.

Hispanics represented 14% of US residents, but comprised 30% of the uninsured in 2005 (DHHS 2005). Nearly two-third (62%) of Hispanics adults – an estimated 15 million people – were uninsured (Doty and Holmgren 2006). Hispanics had the

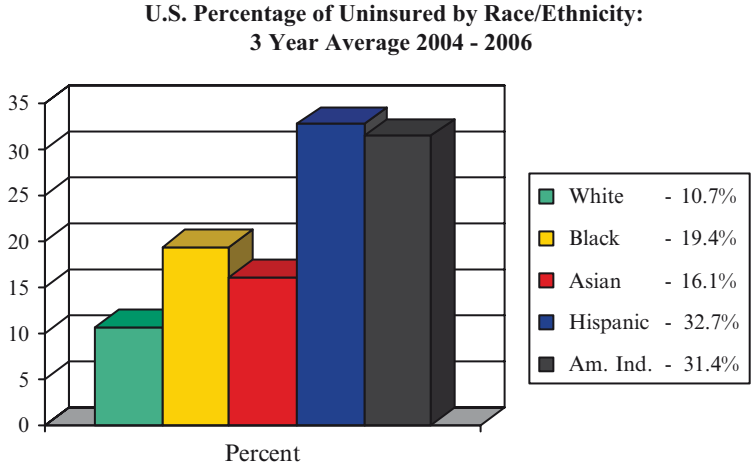
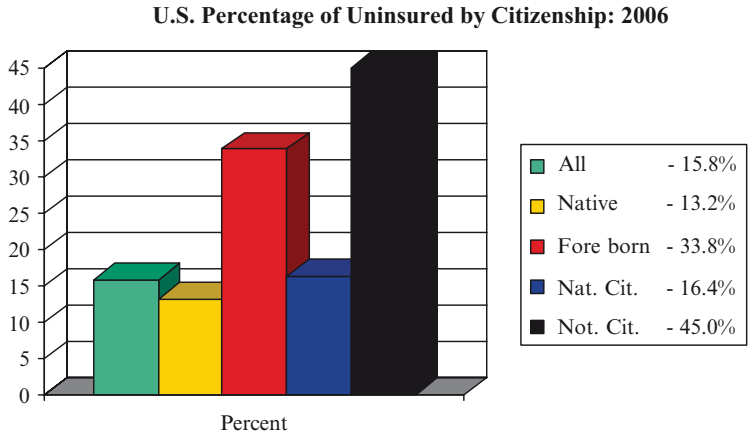


Fig. 6 U.S. Percentage of uninsured by race/ethnicity: 3 year average 2004–2006

highest uninsured rate of all working-age adults (Doty and Holmgren 2006). The higher uninsured rate for Hispanics is primarily associated with type of jobs they are employed in,such as construction and agriculture that do not offer employer-sponsored health insurance (DHHS 2005).

In 2005, immigrants made up 16% of all nonelderly adults in the US among whom about 18 million of the total 29 million adult were non-citizens (Schwartz 2007a). Non-citizens include legal permanent residents (immigrants with green cards), refugees, temporary immigrants, and undocumented immigrants. The majority of the non-citizens were: Hispanics (61%), Asian/Pacific Islanders(18%), Whites (15%), and Blacks (6%)(Schwartz 2007a). Non-citizens form a high disproportionate percentage of the uninsured; especially, those who are low-income (below 200% of the poverty level). Low-income non-citizens who have been in the US for less than 5 years are the least likely to have health coverage (67%) (Schwartz 2007a). More than three-quarter (78.2%) of the uninsured are citizens in 2006 (U.S. Census Bureau 2007a). It is 3.4 times more likely for a non-citizen to be uninsured than a native (*see* Fig. 7).

In 2005, the uninsured rates for minorities below the 200% of FPL are *not* the same as those at the 200% or greater of FPL in 2005. The uninsured minority rates are (1) Hispanics (<200% of FPL=44% and 200%≥of FPL=21%), (2) American Indians (<200% of FPL=44% and 200%≥of FPL=16%), (3) Asian Americans (<200% of FPL=37% and 200%≥of FPL=11%), and (4) Blacks (<200% of FPL=29% and 200%≥of FPL=12%) (Kaiser Commission 2006). Medically uninsured immigrant and refugee populations will be further addressed in a later chapter.



Source: U. S. Census Bureau: Health Insurance Historical Table HI-7

Fig. 7 U.S. Percentage of uninsured by Citizenship: 2006

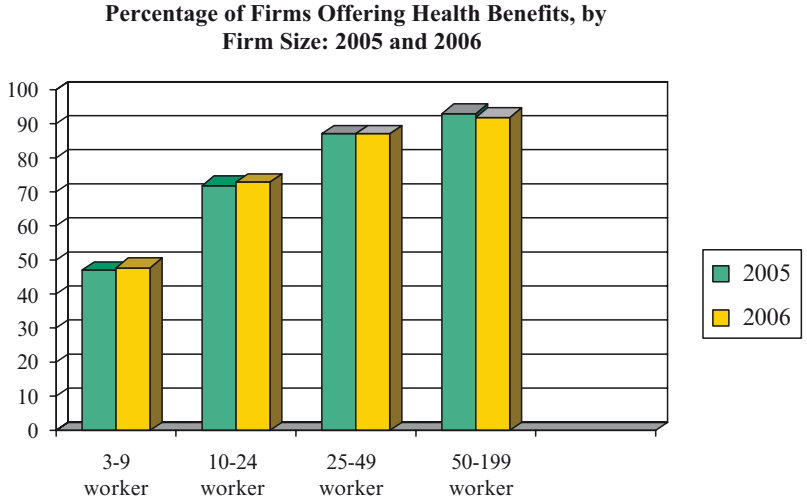
Federal Poverty Level: Based on the March 2006 CPS data, the Kaiser Commission on Medicaid and the Uninsured reported that low-income Americans, those who earn less than 200% of the FPL or $39,942 for a family of four were more likely to be uninsured than those who earn 200% greater than or equal of the FPL in 2005 (Kaiser Commission 2006). Thirty-six percent of the poor those <100% of the FPL and the near-poor those 100–199% of FPL (29%) make up nearly two-thirds the uninsured population. Over 8 in 10 uninsured came from working families – almost 70% from families with 1 or more full-time workers and 11 from families with part-time workers (Kaiser Commission 2006). Low-wage workers, unskilled laborers, service workers, and those employees in small business are the most likely of being uninsured.

Employment: The primary source of health insurance in the US is employer-sponsored health benefits. In 2006, 59.7% of the US population had employer-sponsored health insurance (U.S. Census Bureau 2007a). This was a 523,000 decrease in employer-sponsored health benefit from the year before (60.2%) (U.S. Census Bureau 2007a). There had been a steady decrease of employer-sponsored coverage during 2001–2006 (63.2–59.7%). Most of the decline in employer-sponsored health insurance can be attributed to *rising* cost of health insurance premiums in which the employers had discontinued offering health insurance to their employees because of cost or employees' premium cost sharing had become so high that they cannot afford to purchase the health insurance.

Although the premium cost increases were less in 2006 than 2005, the growth in health insurance costs still *outpaced* the rate of inflation and the growth in workers' wages (Kaiser Family Foundation 2006). In 2006, the annual premium for employer-sponsored health insurance was $4,242 for single coverage in which the employer contributes an average of $627, and $11,480 for family coverage in which

the employee contributes an average of $2,973 (Kaiser Family Foundation 2006). There were increases of $218 for single coverage ($2,024 in 2005) and $600 for family coverage ($10,880 in 2005) between 2005 and 2006 (Kaiser Family Foundation 2005).

Small employers including self-employed individuals face higher costs (e.g., administrative and premium costs) than larger employers for providing the same benefits (economies of scale); thus, the smaller firms are less likely to offer health insurance. In addition, small firms because of employee size usually paid a higher premium cost because of the increased probability of having higher users of health services. There is twice the likelihood that a firm with 3–9 workers will *not* offer health insurance than a firm with 50–199 workers (*see* Fig. 8). Those who work part-time or part-year, usually seasonal workers, are less likely to be offered employer-sponsored health coverage than full-time and full-year workers. Part-time or part-year workers accounted for 30.2% of the employed population in 2005, but accounted for 41.4% of the uninsured workers (Fronstin 2006). The number of uninsured varies among occupations. The service-sector occupations or blue-collar jobs have a higher disproportionality of uninsured. In 2005, 24.1% of the US workforce was blue-collar-type jobs (e.g., farming, fishing, forestry, construction, extraction, maintenance, production, transportation, and material moving), and of these, 36.1% of the workers were uninsured (Fronstin 2006). Other employment-related reasons for becoming uninsured include: (1) losing a job that provided for health insurance (e.g., employer going out of business or being laid off) and (2) divorce or death of a spouse who provided the health insurance through his/her employer (Institute of Medicine 2001).



Source: The Kaiser Family Foundation and Health Research and Education Trust: Employer Health Benefits 2006 Summary of Findings

Fig. 8 Percentage of firms offering health benefits, by firm size: 2005 and 2006

Geography: The highest percentages of the uninsured occur in the four U.S.-Mexico border states (California, Arizona, New Mexico, and Texas) and some southern states (Arkansas, Georgia, Florida, Mississippi, Louisiana, South Carolina, and Texas). These states appeared at least once in the top 10 uninsured states during 2004 to 2006 (*see* Fig. 9). However, all four U.S.-Mexico border states appeared in the top 10 uninsured states in all 3 years. The top 5 uninsured states – those with fewer than 10% uninsured in 2006 were: (1) Vermont, (2) Rhode Island, (3) Wisconsin, (4) Hawaii, and (5) Minnesota.

The 2008 edition of *Income, Poverty and Health Insurance Coverage in the United States; 2007* from the US Census Bureau shows 3- year averages of the percentage of people without health insurance by state from 2005 to 2007. Massachusetts, which has implemented a bold plan to provide medical insurance to a broader range of residents in the State, has jumped to the first place with the lowest percentage of people without health insurance coverage. Other state standings remain consistent with figures presented above (U.S. Census Bureau 2007a).

Top Ten Uninsured States for 2004 to 2006

Rank	2004		2005		2006	
1	***Texas***	***24.2***	***Texas***	***23.6***	***Texas***	***24.5***
2	**New Mexico**		**New Mexico**	**20.3**	**New Mexico**	**22.9**
3	*Florida*	*19.4*	*Florida*	*20.2*	*Louisiana*	*21.9*
4			**Arizona**	**19.6**	*Florida*	***21.2***
5			**California**	**18.8**	**Arizona**	**20.9**
6			*Georgia*	*18.3*	*Mississippi*	*20.8*
7	**California**	**18.0**				
8			*Louisiana*	*17.7*	*Arkansas*	*18.9*
9	**Arizona**	**16.7**	*Arkansas*	*17.5*		
10	*Mississippi*	*16.7*	*South Carolina*	*17.3*	**California**	**18.8**

Source: U. S. Census Bureau: Health Insurance Historical Table HI-4
Bold = Four U.S.-Mexico Border States
Italics =Southern States

Fig. 9 Top ten uninsured states for 2004–2006

Local and state programs to increase health insurance coverage will be reviewed in a later chapter.

Rural versus Urban: The demographics of the rural population are older, poorer, and less healthy compared to people living in urban areas. Among the 42 million non-elderly uninsured in the US based on March 2000 CPS data, 18% live in rural areas in 1999. Persons living in sparsely populated counties or counties not bordering a metropolitan area are less likely to be employer-sponsored. For example, the Kaiser Family Foundation reported that 70% of urban residents had employer-sponsored coverage in 1997, while only 66% of those living in counties next to metropolitan areas and 55% of residents in non-adjacent counties had health insurance through their employers (Kaiser Commission 2001). The probability of being uninsured of those in counties not bordering large cities were 50% higher than urban residents (22% versus 14%).

More than three-quarter (84%) of the rural uninsured are working or have workers in their families, and with 73% from families with at least one full-time worker. Among the uninsured who are poor, 47% of those in rural areas are from families with full-time workers compared to 38% of the poor urban uninsured. Rural residents (24%) between the ages of 45 and 64 are more likely to be uninsured than urban residents (19%).

Medical Care Research and Review reported that when health insurance offered, enrollment rates were similar for rural and urban workers at 68% (Kaiser Commission 2001). However, rural residents are less likely to have job-based coverage because their employers are less likely to offer them health insurance. This is primarily due to the *types* of business/industry employer located in rural areas. Small businesses that do not offer health insurance are very common in rural areas, such as farming, general labor, service, and repair work. One-third of rural workers are employed in firms with less than 25 employees and a third of these workers are self-employed. These combinations of small size businesses with lower wages are the major factors that contributed to the lower levels of job-based coverage. The rural medically uninsured will be further addressed in a later chapter.

Who are the most likely to be uninsured in the US: Although there is not a single group that is uninsured in the US, there are population characteristics that increase the likelihood that one will be uninsured. The more characteristics one has, greater is the probability that one will become uninsured. Those characteristics include:

- Younger adult males, especially those 18–25 years of age, are more likely to be uninsured than older adult males.
- Younger adult males are more likely to be uninsured than young adult females due to Medicaid eligibility requirements.
- Minorities are more likely to be uninsured than Whites.
- Hispanics are more likely to be uninsured than other minority groups.
- Even though most American Indians have the availability of Indian Health Service their rating is still higher-than-average of uninsured.
- Lower income persons, especially those below the 200% of FPL, are more likely to be uninsured than higher income persons.

- Unemployed persons are more likely to be uninsured than employed persons.
- Part-time and seasonal employees are more likely to be uninsured than full-time employees.
- Employees of small firms are more likely to be uninsured than employees of large firms.
- Residents living in US -Border and some southern states are more likely to be uninsured than other parts of the country.
- Rural residents are more likely to be uninsured than urban residents.

Health Consequences of the Medically Uninsured

One of the major barriers to the access of healthcare is being uninsured – not having the means to pay for health services. The uninsured do not have a medical home or a regular source of care that provides the full spectrum and needed continuity for the prevention of disease and maintenance of optimal health status. Thus, many uninsured seek care through healthcare safety net providers such as community health centers, free clinics, public health facilities, school-based health centers, and ERs. Most of these safety-net providers do not provide a full continuum of care for the uninsured, but provide immediate relief or treatment for the problem at hand. Community health centers for example, provide ambulatory services, but not hospital services.

There are many health consequences as a result of not receiving preventive and ongoing health services as well as services in a timely manner. Many of the uninsured will forego preventive services; the uninsured are less likely to be screened for serious illnesses. The uninsured are more likely to postpone or fail to receive needed medical care. Not receiving care in a timely manner may result in entering the healthcare system in poorer health or at a more advanced disease stage. This leads to the uninsured frequently having worse health outcomes, and requiring more intensive and expensive care (e.g., longer hospitalization) than those with private health insurance or publicly financed health coverage programs (e.g., Medicaid) as a result of seeking care with more serious symptoms or illnesses. Even if the uninsured receive care, they may not be able to follow-up with treatment such as prescription drugs or surgery. The uninsured may not fill their prescription drugs because they cannot afford it. Thus, there is no improvement in their health conditions, chronic or acute, and conditions may even become worse. In addition, there may be a delay with follow-up physician visits or diagnostic tests such as laboratory tests or X-rays.

Studies have shown that the uninsured who cannot afford to pay for health services frequently do not have a personal physician or healthcare provider, and receive fewer needed medical visits. Preventive visits in the uninsured population also rank less than in the insured population. Adults who have been uninsured for more than 1 year are three to four times more likely to not have had their blood pressure checked or any cancer screenings completed. This lack of access to timely

preventive care causes more than 20,000 uninsured adults to die prematurely each year (Kaiser Family Foundation 2008).

The State Health Access Data Assistance Center (SHADAC 2006) reported: 56.8% of the uninsured adults (18–64 years) did not have a personal physician or healthcare provider compared to 15.5% of the insured adults. In addition, 41.1% of the uninsured adults were unable to see a physician when needed due to the *cost*; whereas, only 9.2% of the insured adults reported the same circumstance in the past 12 months. SHADAC also reported the uninsured adults were less likely to have received recommended cancer screenings than insured adults. For example, uninsured adult women ages 40–64 who did not receive a mammogram in the past 2 years was reported as 50.8%; whereas, insured adult women who did not receive a mammogram for the same time frame was only 22.8%. The review of other preventive cancer screening tests such as Pap smears, PSA tests, and sigmoidoscopies or colonoscopies yield the same findings. Uninsured adult women who had not had a pap smear in the past 3 years were 24.6% with insured women reporting 12.2%. Nearly 75% of uninsured men ages 40–64 had not had a PSA in the past 2 years compared to 52.2% in their insured counterparts. The uninsured adult population had lower sigmoidoscopies or colonoscopies than the insured population with 74.2% never having had one. The insured population reported 50.5% not having either diagnostic screening (SHADAC 2006). In addition to these illustrated cancer screenings, other health screenings are also lower in the uninsured population. For example, uninsured adults not receiving hypertensive screening were reported at 19.5%, with the insured adults at 5.6%. Lastly, uninsured adults reported no cholesterol screening at 40.5%, compared to the insured rate of 18% (Hadley 2006).

The Urban Institute examined the medical care sought after and obtained by uninsured and insured non-elderly individuals following an unintended injury or onset of a chronic condition. The uninsured were less likely to obtain any medical care than the insured individuals for either of the health problem. However, regardless of healthcare coverage, there was a greater likelihood that medical care would be obtained for onset of a chronic condition than unintended injury (Hadley 2007).

Uninsured adults with chronic health conditions are more likely than the insured adults to have substantially higher unmet health needs. A Robert Wood Johnson Study in 2005 reported that 49% of uninsured adults with chronic conditions reported foregoing needed medical care or prescription drugs due to the cost. Thirty-four percent of the uninsured reported unmet needs for medical care as well as unmet needs for prescription drugs (Davidoff and Kenny 2005). This same study showed that more than half of the uninsured adults with arthritis-related conditions (59%), diabetes (57%), heart disease (56%), and asthma (52%) had an unmet need for either medical care or prescription drugs (Davidoff and Kenny 2005). For these four health conditions, the unmet need for prescription drugs was also far higher than the average of 34% for arthritis-related conditions (47%), diabetes (43%), heart disease (42%), and asthma (42%). The impact of unmet medical and prescription needs in the uninsured population has huge implications for health outcomes.

Lastly, this impact on individual health outcomes in the uninsured can have a significant impact on the US population life expectancy. Premature death can be

attributed to the inability to access the needed medical care due to the lack of health insurance. The Kaiser Commission on Medicaid and the Uninsured (2002) estimates that the effect of extending insurance coverage to all US residents would reduce mortality rates of the uninsured by 10–15%. The Institute of Medicine (Health Care Leadership Council 2007) estimates the number of unnecessary deaths in the uninsured population to be 18,000 each year.

Economic Cost of the Medically Uninsured

The economic cost of lacking health insurance extends beyond the uninsured individuals and their families. The Institute of Medicine (IOM 2003) reported that the financial, physical, and emotional well-being of all members of the uninsured family may be in jeopardy if any individual becomes ill or injured and incurs substantial medical bills (Democratic Policy Committee 2003). The uninsured or "self-pay" individuals are usually penalized for not having insurance by being charged higher fee-for-service rates for healthcare services and *not* given the discounts afforded to insured patients (Robert Wood Johnson Foundation 2006). A study published in *Health Affairs* (Himmelstein et al. 2005) found that an uninsured patient paid up to twice as much as an insured patient for care. To pay for the accrued medical bills, families may have to cut back on basic living expenses such as food, heat, or rent, may have to use up or close saving accounts, borrow from other family members and friends, obtain loans or a second mortgage on their home, or declare bankruptcy (IOM 2003; Long 2003; Schwartz and Artiga 2007b).

High uninsured rates have negative economic impacts on society and the healthcare system. The society costs include: (1) lost health and reduced length of life, (2) higher costs for publicly supported health programs such as Medicaid and Medicare, (3) increased financial risks and anxiety in families, and (4) financial stresses for – and instability of – healthcare providers in communities with high uninsured rates (IOM 2003; Kellermann 2003). By default, the many state, county, and municipal health facilities serve as providers for their uninsured populations (Kellermann 2003). Public funding for the safety-net may be considerable depending on the community uninsured rate. Using 2004 dollars, the Kaiser Commission on Medicaid and the Uninsured Report found that federal, state, and local governments covered as much as 85% of the estimated $41 billion spent on uncompensated care (Hadley et al. 2004). This cost was paid mostly by the taxpayers.

The impact on the healthcare system reported by the IOM include: (1) the uninsured use fewer services and are less able to pay the full cost of care, which creates financial pressures and lowers revenues for healthcare providers in high-uninsured areas, (2) to avoid the burden of uncompensated care, physicians and hospitals in high-uninsured areas may reduce services, scale-back staffing, limit hours, relocate or close, (3) hospitals with high uninsured rates offer fewer services, and (4) public health departments in high-uninsured areas may have to divert resources away from public health activities that benefit the entire community it

order to provide care to the uninsured (Democratic Policy Committee 2003; Public Health Reports 2003).

High uninsured rates have *significant* impacts on the business community and the nation's economic productivity. To make up for financial losses due to extensive uncompensated care of the uninsured, health providers have to charge more for health services, and these are reflected in health insurance company contracts. Thus, the health insurers have to increase their premium costs to compensate for the higher health provider charges. This cost is passed on to the employers who provide health insurance to their employees. A USA Families study in 2005 reported that health insurance premiums for families who have insurance through their private employers paid on an average $922 higher in 2005 due to the cost of healthcare for the uninsured that was not paid for by the uninsured themselves or by other sources of reimbursement (Family USA 2005). Employers also bear the costs of uninsurance through workers who miss work, leave their jobs, or retire early for health reasons. A 2005 study from the Commonwealth Fund found that 69 million workers reported missing days due to illness for a total of 407 million days of lost time at work (IOM 2003).

Providing universal health care coverage for the US population could have a significant impact on the nation's economy. The IOM (2003) estimated that the potential economic value gained from providing health insurance for all Americans (leading to improved health and longer life spans) would be between $65 billion and $130 billion a year (Democratic Policy Committee 2003). The estimate was based on higher expected lifetime earnings due to improved productivity and educational and developmental outcomes (Robert Wood Johnson Foundation 2006).

Later chapters will discuss how other developed countries have provided universal healthcare coverage to their populations, and how community, state, regional and other programs are attempting to provide health coverage to a broader base of their populations in the US.

References

American College of Physicians (2004) Patient-centered, physician-guided care for the chronically III: The American College of Physicians Prescription for Change, Oct 2004. Available at: http://www.worldcongress.com/events/nw600/pdf/luminarySeriesPDF/Tooker_1.pdf. Accessed 28 Sept 2009

U.S. Census Bureau (2007a) Health Insurance Historical Tables 4, 6 and 7. Available at http://www.census.gov/hhes/www/hlthins/historic/hihistt4.html. Accessed 9 July 2007

U.S. Census Bureau (2007b) Annual Social Economic (ASEC) Supplement Table HI10. Available at http://pubdb3.census.gov/macro/032007/health/h01001.htm. Accessed 30 Sept 2007

U.S. Census Bureau (2008) Income, Poverty, and Health Insurance Coverage in the United States: 2007. Available at http://www.census.gov/prod/2008pubs/p60-235.pdf. Accessed 28 Sept 2009

Centers for Disease Control and Prevention (2007a) Behavioral risk factor surveillance system: Prevalent data nationwide 2005. Available at: http://apps/need.cdc.gov/brfss/display.asp?cat=HC&yr=2005&qkey=868&state=UB. Accessed 1 Oct 2007

Centers for Disease Control and Prevention (2007b) Summary of health statistics for the U.S. population: National Health Interview Survey 2005. Series 10, Number 233

Davidoff A, Kenny G (2005) Uninsured Americans with chronic health conditions: Key findings from the National Health Interview Survey. Robert Wood Johnson Foundation, pp 1–22. Available at: http://www.urban.org/UploadedPDF/411161_uninsured_americans.pdf. Accessed 28 Sept 2009

Democratic Policy Committee (2003) The uninsured in America: Expert panel spotlights Consequences of not having health insurance. Available at: http://democrats.senate.gov/dpc/dpc-new.cfm?docname=fs-108-1-355. Accessed 1 Oct 2007

DeNavas C, Proctor B, Smith J (2007) Income, poverty, and health insurance coverage in the United States: 2006. U.S. Census Bureau, Current Population Reports: Consumer Income. pp 1–78

Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (2005) Overview of the uninsured in the United States: An analysis of the 2005 Current Population Survey. Issue Brief, pp 1–11

U.S. DHHS (2008) 2007 National Healthcare Disparities Report. U.S. Agency for Healthcare Research and Quality, Rockville, MD

Doty MM, Holmgren AL (2006) Health care disconnect: Gaps in coverage and care for minority adults. Commonwealth Fund. Issue Brief, pp 1–11

Eng HJ, Resnick C, Yordy K, DuVal M, Vogel R, Brill J, Paz-Ono E, Parces M, Voloudakis M, Khandokar I, Clarihew B, Jacobs J (2002) Health care coverage in Arizona: Full Assessment. Southwest Border Rural Health Research Center, pp 1–55

Family USA (2005) Paying a premium: The added cost of care for the uninsured. A Report by Family USA, pp 1–17

Fronstin P (2006) Sources of health insurance and characteristics of the uninsured: Analysis of the March 2006 Current Population Survey. Employee Benefit Research Institute. Issue Brief, pp 1–30

Hadley J (2006) Cover Missouri project report: Consequences of lack of health insurance on health and earnings. Missouri Foundation for Health, pp 1–21. Available at: http://www.urban.org/UploadedPDF/1001001_CoverMo1.pdf. Accessed 28 Sept 2009

Hadley J (2007) Insurance coverage, medical care use, and short-term health changes following an unintended injury or onset of a chronic condition. J Am Med Assoc 297(10):1073–1084

Hadley J, Holahan J, Cook A (2004) The cost of care for the uninsured: What do we spend, who pays, and what would full coverage add to medical spending? Kaiser Commission on Medicaid and Uninsured: Issue Paper, pp 1–14

Healthcare Leadership Council (2007) The uninsured. Available at: http://www.hlc.org/html/uninsured.html. Accessed 1 Oct 2007

Himmelstein DU, Warren E, Thorne D, Woolhander S (2005) Market watch:Illness and injury as contributors to bankruptcy. Health Aff 10:63–73. Available at: http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.63v1. Accessed 28 Sept 2009

Holahan J, Cook A (2007) What happened to the insurance coverage of children and adults in 2006? The Kaiser Commission on Medicaid and Uninsured. Issue Paper, pp 1–10

Institute of Medicine (2000) America's Health Care Safety Net: Intact but Endangered. National Academies Press. Available at http://books.nap.edu/openbook.php?record_id=9612&page=47. Accessed 28 Nov 2008

Institute of Medicine (2001) Coverage matters: Insurance and health care. National Academy Press, Washington, DC, pp 1–8

Institute of Medicine (2003) Hidden costs, value lost: Uninsured in America. pp 1–196

Kaiser Commission on Medicaid and the Uninsured (2002) Sicker and poorer: The consequences of being uninsured, pp 1–24

Kaiser Commission on Medicaid and the Uninsured (2006) Fast facts. Henry Kaiser Family Foundation

Kaiser Commission on Medicaid and the Uninsured (2006) The uninsured: A primer – key facts about Americans without health insurance, pp 1–45

Kaiser Family Foundation (2008) Five basic facts on the uninsured. Available at: http://www.kff.org. Accessed 29 Nov 2008

Kaiser Family Foundation and Health Research and Educational Trust (2005) Employer health benefits 2005 summary of findings, pp 1–8

Kaiser Family Foundation and Health Research and Educational Trust (2006) Employer health benefits 2006 summary of findings, pp 1–8

Kellermann A (2003) A shared destiny: Effects of uninsurance on individuals, families, and communities. Testimony before Subcommittee on Labor, Health and Human Services, and Education Committee on Appropriations, U.S. Senate. Available at: http://www7.nationalacademies.org/ocga/testimony/healthcareaccessaffordability.asp. Accessed 1 Oct 2007

Long S (2003) Hardship among the uninsured: Choosing among food, housing, and health insurance. The Urban Institute, pp 1–7

Okoro CA, Young SL, Strine TW, Balluz LS, Mokdad AH (2005) Uninsured adults aged 65 years and older: Is their health at risk? J Health Care Poor Underserved 16(3):453–463

Patchias EM, Waxman J (2007) Women and health coverage: The affordability gap. Commonwealth Fund. Issue Brief, pp 1–11

Public Health Reports (2003) Community consequences of lack of health insurance. Public Health Reports: News and Notes 118:382–383

Rhoades JA (2006) The uninsured in America: First half of 2005: Estimates for the civilian noninstitutional population under age 65. Agency for Healthcare Research and Quality, MEPS Statistical Brief #129

Robert Wood Johnson Foundation (2006) The consequences of uninsurance. Available at http://statecoverage.net/coverage/consequences.htm. Accessed 1 Oct 2007

Schwartz K (2007a) Spotlight on uninsured parents: How a lack of coverage affects parents and their families. Kaiser Commission on Medicaid and Uninsured, pp 1–7

Schwartz K, Artiga S (2007b) Health insurance coverage and access to care for low income noncitizen adults. Commonwealth Fund, Issue Brief, pp 1–11

State Health Access Data Assistance Center (SHADAC) (2006) The coverage gap: A state by state report on access to care, pp 1–25