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# Unauthorized Immigrants Spend Less Than Other Immigrants And US Natives On Health Care

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ABSTRACT Unauthorized immigrants and other immigrants who have been in the United States for less than five years have few options for accessing health care through public programs. In light of the ongoing national debate about immigration reform and the impact of the Affordable Care Act on immigrants, we examined differences in health care spending by nativity and legal status using Medical Expenditure Panel Survey data for the period 2000–09. We found that unauthorized, legal, and naturalized immigrants together accounted for \$96.5 billion in average annual health care spending, compared to slightly more than \$1 trillion for US natives. Unauthorized immigrants' share of health care spending was \$15.4 billion-the smallest of the groups. Just 7.9 percent of unauthorized immigrants benefited from public-sector health care expenditures (receiving an average of \$140 per person per year), compared to 30.1 percent of US natives (who received an average of \$1,385). Policy solutions could include extending coverage to unauthorized immigrants for the prevention and treatment of infectious diseases or granting them access to the Affordable Care Act's insurance marketplaces, which start in 2014. The final version of federal immigration reform might also include strategies to expand immigrants' access to health care.

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mmigration has been a controversial subject of public discourse and policy efforts in the United States for decades, as both citizens and policy makers debate whether or not immigrants are responsible for lost jobs, lower wages, overcrowded emergency departments (EDs), and economic decline in the United States.<sup>1,2</sup> Today unauthorized immigrants and people who immigrated less than five years ago have few options for accessing health care through public programs, leaving those immigrants the choice between paying for care out of pocket or securing private insurance.

The safety net available to immigrants consists largely of hospital EDs and federally qualified

health centers. Such limited access to highquality health care and to medical homes is not optimal, and it has merely shifted the financial burden of paying for the care of immigrants from publicly funded programs to private health insurance plans.<sup>3</sup>

The question of immigrants' use of health services has been addressed by a group of recent studies, all of which have concluded that health care use and spending are lower among immigrants than among people born in the United States.<sup>4-13</sup> One recent report compared differences in access to care by nativity and legal status and found that the percentage of unauthorized immigrants who lack health insurance has been growing over the past few years, and that there

were persistent differences in uninsurance rates across immigration statuses, even after poverty levels were accounted for.<sup>14</sup>

These findings imply that restricted access to health insurance among unauthorized immigrants potentially translates into higher out-ofpocket health spending for immigrants and higher costs to providers of uncompensated care for immigrants. However, these possible results have not yet been established in the research literature.

# **Immigrant Health Policy**

Recent attempts at immigration reform have centered on whether unauthorized immigrants should be granted a path to citizenship that could make them eligible for public services.<sup>2</sup> Proponents of policies that restrict immigrants' access to public services believe that public policies should support tax-paying citizens rather than immigrants who may not have paid taxes or whose tax payments are not yet sufficient to justify access to publicly funded programs.<sup>15-17</sup> The proponents also believe that restricting immigrants' access to public services is necessary to prevent people who are unprepared to support themselves from entering the country. Policies that restrict access to public resources, such as government health care programs, are believed to deter immigration in general, and illegal immigration in particular.<sup>18,19</sup>

Opponents of policies that restrict immigrants' access to public services believe that such policies may endanger public health because immigrants might not seek treatment for infectious diseases.<sup>3</sup> The opponents do not believe that restrictive policies deter immigration. In their view, immigrants come to the United States in search of economic opportunities, not publicly funded services.<sup>20</sup>

Historically US public policy has restricted immigrants' access to health care.<sup>1,3,21</sup> Even the Affordable Care Act includes language that specifically blocks unauthorized immigrants from participating in public health insurance programs and the private health insurance marketplaces called exchanges that will be established in 2014.<sup>2</sup> Under the health reform law, naturalized citizens with proof of citizenship are eligible for the same array of benefits as US natives. However, immigrants who are lawfully present in the United States are subject to a five-year waiting period before they become eligible for Medicaid and the Children's Health Insurance Program (CHIP) and can buy health insurance in the exchanges. States may waive this waiting period by using state funds to subsidize immigrants' costs for these programs.

Our study builds on earlier research by comparing medical expenditures for unauthorized immigrants, legal residents, naturalized citizens, and US natives. Our results, combined with prior reports on immigrants' access to care, can contribute to the policy debate on immigration reform and provide insights into the effects of national health policies on unauthorized immigrants' use of health care.

### Study Data And Methods

**DATA AND ANALYSES** We used data from the 2000–09 Medical Expenditure Panel Survey (MEPS) to examine health care expenditures by nativity and legal status. MEPS is a large-scale, nationally representative in-person survey managed by the Agency for Healthcare Research and Quality. MEPS respondents are randomly selected from respondents to the National Health Interview Survey (NHIS), which means that data from MEPS respondents can be merged with their responses to the NHIS. We examined the most recent ten-year period for MEPS, 2000–09, because it provided the most statistical variation for analysis of the target population.

For respondents who report using health care services, MEPS asks their providers for data on respondents' annual expenditures for inpatient and outpatient care and services provided in the ED, a physician's office, and other settings. We defined expenditures as reimbursements in dollars, and we categorized them by source of payment, including out of pocket, private insurance, and public insurance programs such as Medicare and Medicaid. We calculated total annual expenditures by source of payment and adjusted them for inflation; all expenditures reported here are in 2009 dollars. We also calculated the percentage of respondents who received uncompensated care-that is, any health care for which the provider was not reimbursed.

The NHIS categorizes immigration status as US native, naturalized citizen, and noncitizen resident. The last category includes legal permanent residents, legal conditional residents—for example, the spouse of a US citizen—and unauthorized immigrants.

To estimate medical expenditures associated with these immigrants, we developed a multistep imputation procedure. First, we used a multivariable regression model to predict medical expenditures for all noncitizen immigrants. We then used the model to impute medical expenditures of unauthorized and legal resident immigrants based on differences in demographic, economic, and other characteristics between these two categories of immigrants. Thus, differences in medical expenditures after this imputation pro-



#### Annual spending on emergency care

Unauthorized immigrants spend an average of \$54 per year in the emergency department, compared to \$138 per year for US natives. cedure reflect differences in caseload composition between unauthorized and legal resident immigrants.

This imputation procedure is based on an authoritative source of information on the size and characteristics of the unauthorized immigrant population.<sup>22</sup> We provide more information about this method in the online Appendix.<sup>23</sup>

To analyze health care expenditures, we employed a two-step model. We started with a logit model to estimate the likelihood of noncitizen immigrants' having any annual health care spending. A log-linear regression was used to model expenditures for those likely to have them. Duan's smearing method was used to retransform predictions from the log-linear regression.<sup>24</sup>

In the second step, information on the distribution of demographic and economic characteristics for unauthorized immigrants was used with the regression models to predict annual health care expenditures and uncompensated care for the average unauthorized immigrant.<sup>22</sup> For health care expenditures, the predicted probability of unauthorized immigrants' having any spending from the logit model was multiplied by the dollar estimates of their spending from the log-linear regression to derive overall average health care expenditures predicted for unauthorized immigrants for each health care setting. Using a similar procedure, we also estimated health care expenditures for legal resident immigrants.

**LIMITATIONS** The first limitation of the study is that demographic characteristics of unauthorized immigrants may have changed since 2009, the date of the report on which this study is based.<sup>22</sup> Second, the methods employed by previous researchers and their assumptions about the unauthorized immigrant population have limitations that may affect the current study.<sup>22</sup>

In general, high-quality data about the legal status of immigrants are lacking. As a result, we must rely on the indirect methods described above to study unauthorized immigrants. The lack of information on legal status implies that differences in health care outcomes across groups represent differences in demographic and economic characteristics between unauthorized and legal immigrants.

# **Study Results**

US natives spent more than \$1 trillion on health care annually during the study period (Exhibit 1). Unauthorized immigrants, legal residents, and naturalized citizens collectively spent \$96.5 billion annually. Naturalized citizens accounted for most of this spending by immigrants, and unauthorized immigrants had the smallest share: just 1.4 percent of total medical spending in the United States.

One reason health care spending for unauthorized immigrants was so low is that only 60 percent of this population had any health care expenses within a given twelve-month period, compared to 87 percent for US natives (Exhibit 1). Unauthorized immigrants were more than twice as likely as US natives to receive uncompensated care. However, this may not be surprising, considering that unauthorized immigrants are much more likely than US natives to lack health insurance.<sup>14</sup>

Unauthorized immigrants had the lowest expenditures of any group across all health care settings (Exhibit 2). For example, average ED expenditures for unauthorized immigrants were \$54 per year, compared to \$138 per year for US natives. On average, US natives had six times as much outpatient spending as unauthorized immigrants did. And compared to US natives, unauthorized immigrants received a larger share of their care in a physician's office.

Only 7.9 percent of unauthorized immigrants had spending for health care from public sources, and that spending averaged about \$140 per person per year (Exhibit 3). In contrast, 30.1 percent of US natives had spending from public sources, for an average of \$1,385 per person annually. For each dollar of public spending, unauthorized immigrants had nearly \$8 from private sources on average. The ratio for US natives was \$1.76 of private spending for every dollar of public spending.

# **Policy Implications**

Consistent with the results of other studies on immigrants and health spending in the United

#### EXHIBIT 1

Health Care Spending By Nativity And Legal Status Of Respondents To The Medical Expenditure Panel Survey, 2000–09

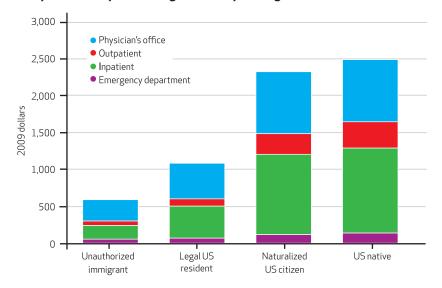
	Status			
	Unauthorized immmigrant	Legal resident	Naturalized citizen	US native
PERCENT OF POPULATION HAV	ING:			
Any health care expenses Any uncompensated care	60 5.9	72 4.7	83 2.3	87 2.8
EXPENDITURES				
Average annual (millions of 2009 \$) Percent of US expenditures	15,370 1.4	28,473 2.5	52,621 4.7	1,028,229 91.4

**SOURCE** Authors' calculations based on data from the Medical Expenditure Panel Surveys, 2000–09. **NOTE** Details on the calculations can be found in the Appendix (see Note 23 in text).

## WEB FIRST

#### EXHIBIT 2

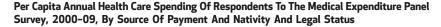
Per Capita Annual Health Care Spending Of Respondents To The Medical Expenditure Panel Survey, 2000–09, By Care Setting And Nativity And Legal Status

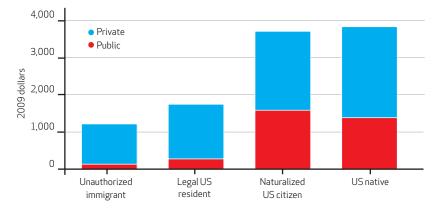


**SOURCE** Authors' calculations based on data from the Medical Expenditure Panel Surveys, 2000–09.

States, our findings show that unauthorized immigrants have lower health care spending overall but higher rates of receiving uncompensated care than legal immigrants and US natives.<sup>11-14</sup> Lower use and spending have been partly explained in previous research as the result of a selection effect—healthy people migrate to the United States and stay in the country longer, while unhealthy people do not migrate at all or stay for shorter periods, returning to their coun-

#### EXHIBIT 3





**SOURCE** Authors' calculations based on data from the Medical Expenditure Panel Surveys, 2000–09. **NOTES** "Private" is out-of-pocket payments and reimbursements from any private insurer. "Public" is reimbursements from any federal or state government program, including Medicare and Medicaid. try of origin.<sup>25,26</sup> Other studies have shown that immigrants lose their health advantage over time and begin to have health profiles similar to those of US natives.<sup>27,28</sup> Our results are consistent with these hypotheses because we found a stepped relationship between spending and level of acculturation: US natives spent the most on health care, naturalized citizens spent nearly as much as US natives, and unauthorized immigrants spent the least.

It should be noted that lower health care spending by unauthorized immigrants does not necessarily mean that this population requires less care than US natives and other immigrant groups. A recent comparison of self-reported disease and disease measured in a medical assessment showed that undiagnosed disease explained a large portion of the apparent health advantage of recent immigrants.<sup>29</sup> This lack of awareness of disease is not surprising given immigrants' reduced access to health care and lower levels of education, compared to those of US natives.

However, the key policy implication of this finding has to do with health reform and the cost of immigration. If it is true that immigrants have a high prevalence of undiagnosed disease, then improved access to care that may come from health reform for legal immigrants who have lived in the United States for at least five years could uncover health problems that are in need of medical attention. Given that unauthorized immigrants will continue to be blocked from access to care under health reform, it is likely that disease among that population will remain undiagnosed.

As federal policy gradually restricted immigrants' access to health care during the past few years,<sup>1,3,21</sup> states wrestled with their own policies in relation to health services for immigrants. In 2011, 197 bills concerning immigration policy were enacted in different states, out of 1,607 such bills that were introduced in state legislatures. Fifteen states enacted twentythree laws related to immigrants and health care, most of which focused on defining eligibility requirements for public insurance and insurance marketplaces and on the licensing of health care providers and interpreters.<sup>30</sup> In 2012 twenty-five states introduced legislation to restrict access to health care and limit eligibility to participate in the new state health exchanges. However, several new laws provide coverage through Medicaid, CHIP, or both to additional groups of immigrant children and pregnant women, regardless of their year of entry or legal status.<sup>31</sup>

Even in states that have no health policy related to immigrants' access to health care, it is

a problem for local governments and public hospitals not to provide unauthorized immigrants with acute care because not providing such care would be illegal, according to the Emergency Medical Treatment and Active Labor Act of 1986. In addition, many providers consider it unethical to turn such people away. Additional policies need to be developed at the local level in cases where state and federal policy fails to help local communities address the health needs of unauthorized immigrants and cover the costs of caring for them.

The experience of some European countries that provide limited access to health care for undocumented immigrants may provide insights for US policy makers.<sup>32</sup> Like the United States, most European countries give all undocumented immigrants access to emergency services and provide limited access to additional care for certain segments of the population, such as pediatric and maternity care for children and pregnant women. However, some European countries provide greater access to certain types of services, such as the prevention and treatment of infectious diseases, or allow immigrants to purchase health insurance-in contrast to the US ban on immigrants' use of the new health insurance exchanges, noted above. Switzerland allows undocumented immigrants to purchase private insurance, although both premiums and cost sharing are high. Spain covers immigrants through its National Health System if they have registered as residents of a municipality.

It must be acknowledged that it is easier to provide coverage to unauthorized immigrants in countries with universal health care than in countries such as the United States that lack universal coverage. A universal system provides care for anyone, regardless of citizenship status or ability to pay.<sup>32</sup> Even without a universal system, though, the United States could learn from the approaches that other developed countries have used to provide immigrants with access to health care. For instance, allowing unauthorized immigrants to purchase private health insurance through federally facilitated or state-based insurance marketplaces would give immigrants another option for obtaining coverage. And since prior research on immigrants, especially recent arrivals in the United States, indicates that they are healthier than US natives and immigrants who have been in the country longer, such a policy would probably not increase insurance premiums.<sup>26,27</sup> Another policy option to consider is providing coverage for the prevention and treatment of infectious

diseases, especially because uncontrolled contagious diseases could endanger public health.<sup>3</sup>

Federal immigration reform is another possible strategy for addressing immigrants' limited access to health care and the high costs of uncompensated care. The immigration reform proposal now pending in the Senate-the Border Security, Economic Opportunity, and Immigration Modernization Act-focuses on improving border security and providing visas and a path to citizenship for unauthorized immigrants. Although providing a path to citizenship could eventually improve access to health care for unauthorized immigrants, the proposed legislation would create a provisional legal status for unauthorized immigrants, involving a \$500 fine every six years and no convictions for a felony or three or more misdemeanors. People in this category would not qualify for welfare or federal benefits, including the Affordable Care Act's tax subsidies and credits. However, they would be eligible to apply for a green card after spending ten years in the United States, paying a \$1,000 penalty and any back taxes, and proving gainful employment. The border security triggers described in the proposal would also have to be met.

This proposal has limitations. But depending on the final version of the legislation, immigration reform has the potential to increase the number of immigrants who are eligible to access the health care system.

# Conclusion

Our study found that unauthorized immigrants have lower health care expenditures and higher rates of receiving uncompensated care than legal residents, naturalized citizens, and US natives. This finding is largely attributed to a history of policies that block access to health care for this population. Although there is clearly a need for better data about unauthorized immigrants, we believe that our findings on these differences in health care expenditures are probably conservative estimates of the true effect of unauthorized immigrant status on health care spending.

We have described some policy changes that could improve access to care for unauthorized immigrants and recent immigrants, such as allowing them access to preventive and treatment services for infectious diseases or giving them access to insurance marketplaces. Federal immigration reform could also address immigrants' limited access to health care, assuming that there is the political will to do so.

# 5.9%

#### Receive uncompensated care

An estimated 5.9% of unauthorized immigrants receive care that providers are not reimbursed for, compared to 2.8% of US natives.

#### NOTES

- Hero RE. Immigration and social policy in the United States. Annu Rev Polit Sci. 2010;13:445–68.
- 2 Capps R, Fix M. Immigration reform: a long road to citizenship and insurance coverage. Health Aff (Millwood). 2013;32(4):639–42.
- 3 Mohanty SA. Unequal access: immigrants and U.S. health care. Washington (DC): Immigration Policy Center; 2006.
- **4** Mohanty SA, Woolhandler S, Himmelstein DU, Pati S, Carrasquillo O, Bor DH. Health care expenditures of immigrants in the United States: a nationally representative analysis. Am J Public Health. 2005;95(8):1431–8.
- 5 Goldman DP, Smith JP, Sood N. Immigrants and the cost of medical care. Health Aff (Millwood). 2006;25(6):1700–11.
- **6** Ku L. Health insurance coverage and medical expenditures of immigrants and native-born citizens in the United States. Am J Public Health. 2009;99(7):1322–28.
- 7 Huang AJ, Yu SM, Ledsky R. Health status and health service access and use among children in U.S. immigrant families. Am J Public Health. 2006;96(4):634–40.
- 8 Prentice JC, Pebley AR, Sastry N. Immigration status and health insurance coverage: who gains? Who loses? Am J Public Health. 2005; 95(1):109–16.
- Stimpson JP, Wilson FA, Eschbach K. Trends in health care spending for immigrants in the United States. Health Aff (Millwood). 2010;29(3): 544-50.
- **10** Tarraf W, Miranda PY, González HM. Medical expenditures among immigrant and nonimmigrant groups in the United States: findings from the Medical Expenditures Panel Survey. Med Care. 2012;50(3): 233–42.
- **11** Ortega AN, Fang H, Perez VH, Rizzo JA, Carter-Pokras O, Wallace SP, et al. Health care access, use of services, and experiences among undocumented Mexicans and other Latinos. Arch Intern Med. 2007; 167(21):2354–60.
- 12 Berk ML, Schur CL, Chavez LR, Frankel M. Health care use among undocumented Latino immigrants. Health Aff (Millwood). 2000;19(4): 51–64.
- 13 Dubard CA, Massing MW. Trends in

emergency Medicaid expenditures for recent and undocumented immigrants. JAMA. 2007;297(10): 1085–92.

- 14 Zuckerman S, Waidmann TA, Lawton E. Undocumented immigrants, left out of health reform, likely to continue to grow as share of the uninsured. Health Aff (Millwood). 2011;30(10): 1997–2004
- **15** Martin J. Deterring illegal immigrant settlement: a guide to state and local action. 2nd ed. Washington (DC): Federation for American Immigration Reform; 2012.
- **16** Camarota SA. Illegal immigrants and HR 3200: estimate of potential costs to taxpayers. Washington (DC): Center for Immigration Studies; 2009.
- **17** Edwards JR. The Medicaid costs of legalizing illegal aliens. Washington (DC): Center for Immigration Studies; 2010.
- 18 Edwards JR. What the DACA ordered: the intersection of administrative amnesty and health reform.Washington (DC): Center for Immigration Studies; 2012.
- 19 Spalding M, Zuckerman J, Carafano JJ. Immigration reform needs problem-solving approach, not comprehensive legislation. Washington (DC): Heritage Foundation; 2013. (Issue Brief No. 3833).
- **20** Passel JS, Cohn D. US unauthorized immigration flows are down sharply since mid-decade. Washington (DC): Pew Hispanic Center; 2010.
- 21 Fremstad S, Cox L (Center on Budget and Policy Priorities). Covering new Americans: a review of federal and state policies related to immigrants' eligibility and access to publicly funded health insurance [Internet]. Washington (DC): Kaiser Commission on Medicaid and the Uninsured; 2004 Nov [cited 2013 May 14]. Available from: http:// kaiserfamilyfoundation.files .wordpress.com/2013/01/coveringnew-americans-a-review-of-federaland-state-policies-related-toimmigrants-eligibility-and-access-topublicly-funded-health-insurancereport.pdf
- **22** Passel JS, Cohn D. A portrait of unauthorized immigrants in the United States. Washington (DC): Pew Hispanic Center; 2009.

- **23** To access the Appendix, click on the Appendix link in the box to the right of the article online.
- 24 Duan N. Smearing estimate: a nonparametric retransformation method. J Am Stat Assoc. 1983; 78(383):605–10.
- **25** Palloni A, Arias E. Paradox lost: explaining the Hispanic and adult mortality advantage. Demography. 2004;41(3):385–415.
- **26** Eschbach K, Stimpson JP, Kuo YF, Goodwin JS. Mortality of foreignborn and US-born Hispanic adults at younger ages: a re-examination of recent patterns. Am J Public Health. 2007;97(7):1297–304.
- 27 Stimpson JP, Urrutia-Rojas X. Acculturation in the United States is associated with lower serum carotenoid levels: Third National Health and Nutrition Examination Survey. J Am Diet Assoc. 2007;107(7): 1218–23.
- 28 Peek MK, Cutchin MP, Salinas JJ, Sheffield KM, Eschbach K, Stowe RP, et al. Allostatic load among non-Hispanic whites, non-Hispanic blacks, and people of Mexican origin: effects of ethnicity, nativity, and acculturation. Am J Public Health. 2010;100(5):940–6.
- 29 Barcellos SH, Goldman DP, Smith JP. Undiagnosed disease, especially diabetes, casts doubt on some of the reported health "advantage" of recent Mexican immigrants. Health Aff (Millwood). 2012;31(12): 2727–37.
- **30** National Conference of State Legislatures. State laws related to immigration and immigrants: Immigration Policy Project [Internet]. Denver (CO): NCSL; [last updated 2012 Feb 22; cited 2013 May 15]. Available from: http:// www.ncsl.org/issues-research/ immig/state-laws-related-toimmigration-and-immigrants.aspx
- **31** National Immigration Law Center. Immigrants and the Affordable Care Act (ACA) [Internet]. Los Angeles (CA): NILC; 2013 Mar [cited 2013 May 17]. Available from: http:// www.nilc.org/document.html? id=157%20
- **32** Gray BH, van Ginneken E. Health care for undocumented migrants: European approaches. New York (NY): Commonwealth Fund; 2012.