# Health Insurance Coverage and Medical Expenditures of Immigrants and Native-Born Citizens in the United States

Leighton Ku, PhD, MPH

There is substantial public policy disagreement in the United States about whether the nation should restrict or expand health care for immigrants. Polls show that roughly half of Americans believe that immigrants are a burden on the nation because they take jobs, housing, and health care from US-born citizens. Some further believe that "high rates of immigration are straining the health care system to the breaking point" or that "illegal aliens in this country are taking a large part of our health care dollars." But others believe that steps should be taken to bolster immigrants' health care, such as restoring their eligibility for Medicaid or having insurers pay for interpreter services for patients who are not proficient in English. 4-6

Researchers have found that immigrants' unadjusted per capita medical utilization and expenditures are actually much lower than those of US-born citizens. Mohanty et al. analyzed the 1998 Medical Expenditure Panel Survey (MEPS) and found that immigrants' average per capita medical costs were approximately half those of US-born citizens.7 Goldman et al. examined data from a 2000 Los Angeles survey and concluded that immigrants incurred a disproportionately small share of medical expenses, both government-paid expenses and overall expenses.8 These findings are consonant with studies showing that immigrants have less access to health insurance and use less health care than the native born. 9-14 However, previous research has not clearly examined the relationships among immigrants' health care expenditures, immigration status, and insurance coverage. To learn more about these relationships, I analyzed data from a recent nationally representative survey of adult US residents.

## **METHODS**

I analyzed data on nonelderly adults (19–64 years old) from the full-year consolidated data file of the household component of the 2003 MEPS, which was released in November

*Objectives.* I examined insurance coverage and medical expenditures of both immigrant and US-born adults to determine the extent to which immigrants contribute to US medical expenditures.

Methods. I used data from the 2003 Medical Expenditure Panel Survey to perform 2-part multivariate analyses of medical expenditures, controlling for health status, insurance coverage, race/ethnicity, and other sociodemographic factors

Results. Approximately 44% of recent immigrants and 63% of established immigrants were fully insured over the 12-month period analyzed. Immigrants' per-person unadjusted medical expenditures were approximately one half to two thirds as high as expenditures for the US born, even when immigrants were fully insured. Recent immigrants were responsible for only about 1% of public medical expenditures even though they constituted 5% of the population. After controlling for other factors, I found that immigrants' medical costs averaged about 14% to 20% less than those who were US born.

Conclusions. Insured immigrants had much lower medical expenses than insured US-born citizens, even after the effects of insurance coverage were controlled. This suggests that immigrants' insurance premiums may be cross-subsidizing care for the US-born. If so, health care resources could be redirected back to immigrants to improve their care. (*Am J Public Health*. 2009;99:1322–1328. doi:10.2105/AJPH.2008.144733)

2005.<sup>15,16</sup> MEPS is a nationally representative survey of the US civilian noninstitutionalized population, with an oversampling of Hispanics and Blacks. It includes data on demographic characteristics, health status indicators, insurance coverage, health care utilization, and medical expenditures. MEPS uses a longitudinal, overlapping panel design in which new respondents are recruited each year and are interviewed 5 times over a 2.5-year period. The survey is administered by the Agency for Healthcare Research and Quality (AHRQ).

Although AHRQ has released subsequent years of MEPS data since the 2003 data were released, immigrant indicators are not available for those years because of technical difficulties that affected those data (but not the 2003 data). The 2003 MEPS sample is drawn from households that responded to the National Health Interview Survey in 2001 or 2002, so it may underrepresent those who had recently entered the United States or who had recently left the military or an institution. MEPS had an

overall response rate of 64.5% for the 2003 full-year file. Data collected from household respondents were supplemented by information drawn from a medical provider component that validated data on medical events reported in the household survey and added information about medical expenditures from hospitals and other health care providers.

## **Immigration Status**

Although MEPS does not indicate immigrants' legal status, the MEPS data allowed us to define 3 immigration-status categories: recent immigrants, who had been in the United States for fewer than 10 years; established immigrants, who had been in the United States for 10 years or more; and US-born citizens. Based on census data, the Pew Hispanic Center has estimated that in 2003 46% of recent immigrants to the United States (those who had been in the United States for fewer than 10 years) were undocumented, 42% were legal noncitizens (lawful permanent residents or refugees),

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6% were temporary legal immigrants (e.g., admitted with visas), and 5% were naturalized citizens. The center also estimated that among immigrants who had been in the United States for 10 or more years, the majority (52%) were naturalized citizens, 31% were legal noncitizens, and 17% were undocumented immigrants. About two thirds of those who were undocumented immigrants were recent immigrants (Jeffrey Passel, PhD, Pew Hispanic Center, written communication, March 2008). Thus, the length of time that an immigrant has been in the United States is a useful indicator of legal status. Recent immigrants are primarily undocumented or legal noncitizen immigrants, whereas established immigrants are primarily naturalized citizens or legal noncitizens.

Legal immigrants who have been in the United States for at least 5 years are eligible for Medicaid, so I also performed alternative analyses distinguishing immigrants who had been in the United States for fewer than 5 years from those who had been in the United States for 5 or more years. However, this subdivision reduced the sample size of recent immigrants by more than half and impaired statistical power. In addition, these analyses did not capture Medicaid coverage of undocumented immigrants or of refugees.

#### **Demographic and Medical Variables**

Race, ethnicity, nativity, and other demographic and health status variables were selfreported. Activity limitations were assessed with a composite measure of whether the individual had any limitations in activities of daily living, limitations in instrumental activities of daily living, functional limitations, or sensory limitations (e.g., blindness) during the previous year. The presence of chronic conditions was assessed based on whether the person had been diagnosed as having arthritis, diabetes, coronary heart disease, hypertension, or emphysema. Insurance coverage was evaluated on a monthly basis and was divided into public insurance (Medicaid, Medicare, State Children's Health Insurance Program [SCHIP], and other state or local programs) and private insurance (including employer-sponsored and individual insurance). For adults aged 19 to 64 years, public insurance coverage was primarily Medicaid, and private coverage was primarily employer-sponsored insurance.

I constructed 4 primary categories of annual medical expenditures: public, private, self-paid, and total. The public category comprised expenditures paid by Medicaid, Medicare, SCHIP, other public insurance programs, or other public direct-payment sources, including the estimated value of free care or unpaid monies for care provided by public providers. Private expenditures comprised private insurance payments and other private payments other than self-paid expenses. MEPS does not estimate the value of free care or bad debt for care provided by private health care providers. Selfpaid expenses were out-of-pocket expenditures, such as deductibles or copayments, or for services or goods that were not covered by the person's insurance (this category does not include consumers' share of insurance premiums). The total category was the sum of all 3 subcategories of expenditures (public, private, and self-paid).

## **Analyses**

For multivariate analyses, I created 2-part models. The first used logistic regression models to identify whether a person had had any medical expenditure during the previous year, and the second used linear regression models for those who had a positive expenditure, with the natural logarithm of the medical expenditure as the dependent variable. Such models are widely used for highly skewed, heteroskedastic dependent variables, such as medical expenditures, which can range from zero to very high values. Results from the logistic and linear regression models (which used both the estimated probability of having had an expenditure and the estimated expenditure level, conditional on having had an expenditure) were used to retransform estimates into linear annual dollar estimates via the Duan smearing estimator method. 17,18

To illustrate the independent effects of immigration status and use both components of the 2-part model, I used a simulation exercise known as the method of recycled predictions. For the sample of US-born adults, I applied model coefficients to estimate annual expenditures per person based on a variation in immigration status (with all other characteristics held constant), that is, on the basis of being a US-born adult (the baseline), an established immigrant, or a recent immigrant. Thus, all

characteristics except immigration status were constrained to be the same. Standard errors were computed by weighted jackknife methods replicated 11391 times. 19

In general, all results I discussed are statistically significant with 95% or better confidence, unless stated otherwise. Because MEPS uses a clustered, stratified survey design, all analyses presented are weighted analyses, adjusting for complex survey design. I used SAS version 8.2 (SAS Institute Inc, Cary, NC) or Stata version 10 (StataCorp LP, College Station, TX) to conduct all analyses.

#### **RESULTS**

Immigrant and US-born adults differed in many ways (Table 1). Compared with their USborn counterparts, recent immigrants (those who had been in the United States for fewer than 10 years) tended to be younger and established immigrants (those who had been in the United States for 10 years or more) were slightly older. Both recent and established immigrants were far more likely to be Hispanic or Asian and less likely to be Black, non-Hispanic; White, non-Hispanic; or other. Immigrants were likely to be poorer, to be less educated, and to live in the West compared with nonimmigrants.

Immigrants were much less likely than USborn adults to report being in fair or poor health, to have 1 of the chronic health conditions examined (arthritis, diabetes, coronary heart disease, hypertension, or emphysema), or to have an activity limitation. Recent immigrants appeared to be healthier than established immigrants, who were in turn somewhat healthier than US-born citizens. This may be a result of immigrants having more undiagnosed ailments because they receive less medical care.

## **Health Insurance Coverage and Medical Expenditures**

Table 2 shows that immigrants were more likely to be uninsured and to spend longer periods being uninsured than were their USborn counterparts. However, contrary to stereotypes that immigrants are mostly uninsured and rarely have private insurance, almost half (44%) of recent immigrants and about two thirds (63%) of established immigrants were

TABLE 1—Characteristics of Adults Aged 19 to 64 Years, by Immigration Status: Medicare Expenditure Panel Survey, 2003

	US Born, No. or %	Established Immigrant <sup>a</sup>		Recent Immigrant <sup>b</sup>	
		No. or %	Р	No. or %	Р
Unweighted sample size	14 446	3166		1 461	
Mean age, y	40.7	42.0	<.001	33.0	<.001
Race/ethnicity					
Hispanic	6.7	45.3	<.001	51.9	<.002
Non-Hispanic Black	12.5	7.4	<.001	7.4	<.00
White/Other	79.8	24.0	<.001	19.8	<.002
Asian	1.0	23.4	<.001	20.9	<.001
Women	51.3	49.9	NS	48.8	<0.1
Married	55.8	65.2	<.001	59.6	<0.1
Health measures					
Activity limitations <sup>c</sup>	23.1	15.3	<.001	6.4	<.00
Chronic conditions <sup>d</sup>	31.8	24.2	<.001	8.4	<.00
Fair or poor health	11.4	12.0	NS	5.6	<.00
Income					
Below 100% of poverty level	10.2	12.6	<0.1	14.8	<.00
100%-199% of poverty level	13.7	20.7	<.001	31.4	<.00
200%-399% of poverty level	30.4	30.1	NS	30.6	NS
400% or more of poverty level	45.7	36.7	<.001	23.2	<.00
Employed	76.2	75.6	NS	73.6	<.05
Education					
Less than high school diploma	11.0	3.0	<.001	36.6	<.002
High school diploma	54.4	37.4	<.001	31.6	<.00
Any college	34.6	32.6	NS	31.8	NS
Region					
Northeast	18.1	22.6	<.001	19.7	NS
Midwest	24.9	11.5	<.001	11.3	<.00
South	37.2	24.8	<.001	36.5	NS
West	19.9	41.1	<.001	32.4	<.00

Note. NS = not statistically significant. Significance levels compare mean values for immigrants to mean values for US-born adults.

insured for all 12 months of the analysis period. Although immigrants are less likely to be fully insured than are nonimmigrants (P<.001), full-year coverage, primarily from private insurance, is nonetheless relatively common among immigrants. Recent immigrants were less likely to be publicly insured than were US-born residents (P<.001). This is not surprising; undocumented immigrants and legal noncitizen immigrants who have been in the United States for fewer than 5 years are ineligible for

Medicaid (except for coverage of emergency care or for state-funded coverage). 9,20

The bottom half of Table 2 provides data on respondents' average annual medical expenditures. The average total annual medical expenditure of recent immigrants (\$1308) was less than half that of US-born citizens, and the average total annual medical expenditure of established immigrants (\$1950) was about two thirds that of the US-born citizens (\$3156; P<.001 for both comparisons). Immigrants had

lower public and private medical expenditures than did US-born citizens. Analyses also indicated that immigrants, and recent immigrants in particular, had lower medical utilization: they had fewer medical visits, inpatient admissions, outpatient hospital visits, and emergency medical visits (data not shown).

The results for very recent immigrants (those who had been in the United States for fewer than 5 years) were similar but somewhat more pronounced. Half of the very recent immigrants (50%) were uninsured for all 12 months of the analysis period, and their mean total medical expenditure was a scant \$768 per year, about one fourth that of native-born citizens (analyses not shown).

Table 2 also presents average expenditures for 3 fully insured subpopulations: those insured for all 12 months (whether by public insurance, private insurance, or a combination of the 2), those privately insured for all 12 months, and those publicly insured for all 12 months. Even when immigrants had full-year private health insurance coverage, medical expenditures for recent immigrants (fewer than 10 years of US residence) were roughly half the size, and for established immigrants about two thirds the size, of the medical expenditures of US-born citizens. Recent immigrants who had public insurance for a full year had expenditures about one sixth the size of the expenditures of US-born citizens.

Table 3 compares the aggregate distribution of the nonelderly adult population and their medical expenditures by immigration status. Although recent immigrants make up 5.1% of the national population of adults, they only incur 2.3% of the total medical expenditures for adults and just 1.4% of total public medical expenditures for adults. Established immigrants make up 11.6% of the national population of adults, but they incur only 7.8% of the total medical expenditures for adults and 8.9% of public medical expenditures. Immigrants as a group consume a disproportionately small share of medical care in the United States.

## Characteristics Affecting Medical Expenditures

I used 2-part multivariate models to analyze per-person annual medical expenditures for those who had any insurance coverage in the sample year. My findings regarding the effects of immigration status and several other key

<sup>&</sup>lt;sup>a</sup>Defined as having lived 10 or more years in the United States.

<sup>&</sup>lt;sup>b</sup>Defined as having lived fewer than 10 years in the United States.

<sup>&</sup>lt;sup>c</sup>Activity limitations include activities of daily living, instrumental activities of daily living, and other functional or sensory limitations.

<sup>&</sup>lt;sup>d</sup>Chronic conditions include diagnosed arthritis, diabetes, coronary heart disease, hypertension, and emphysema.

TABLE 2—Health Insurance Coverage and Medical Expenditures of Adults Aged 19 to 64 Years, by Immigration Status: Medicare Expenditure Panel Survey, 2003

	US Born, Mean	Established Immigrant <sup>a</sup>		Recent Immigrant <sup>b</sup>	
		Mean	Р	Mean	Р
Insurance coverage					
No. average months uninsured	2.21	3.56	<.001	5.85	<.001
No. average months publicly insured	1.31	1.22	NS	0.80	<.001
No. average months privately insured	8.74	7.35	<.001	5.37	<.001
Insurance for prior year					
% uninsured all year	13.6	24.2	<.001	42.8	<.001
% insured all year	75.1	63.4	<.001	43.5	<.001
% publicly insured all year	8.9	8.2	NS	4.5	<.001
% privately insured all year	67.4	55.5	<.001	38.9	<.001
Annual medical expenditures by type, \$					
Total medical expenditures	3156	1950	<.01	1308	<.001
Public medical expenditures	533	376	<.001	135	<.001
Private medical expenditures	1991	1141	<.05	949	<.05
Self-paid medical expenditures	635	433	<.001	224	<.001
Mean total expenditures, \$					
For those insured all year	3499	2511	<.001	1401	<.001
For those privately insured all year	3211	2154	<.001	1405	<.001
For those publicly insured all year	8009	4927	<.001	1269	<.001

Note. NS = not statistically significant. Significance levels compare mean values for immigrants to mean values for US-born adults.

TABLE 3—Distribution of Population and Medical Expenditures of Adults Aged 19 to 64 Years, by Immigration Status: Medicare Expenditure Panel Survey, 2003

	US Born, %	Established Immigrant, <sup>a</sup> %	Recent Immigrant, <sup>b</sup> %
Proportion of total adult population	83.3	11.6	5.1
Medical expenditures			
Proportion of total medical expenditures	90.0	7.8	2.3
Proportion of public medical expenditures	89.8	8.9	1.4
Proportion of private medical expenditures	90.2	7.2	2.6
Proportion of self-paid medical expenditures	89.5	8.5	1.9

<sup>&</sup>lt;sup>a</sup>Defined as having lived 10 or more years in the United States.

variables on medical expenditures are detailed in Table 4. Being a recent immigrant or an established immigrant was independently associated with both a reduced likelihood of using any medical care in the year and with lower total medical expenditure levels, compared with US-born adults. The models also showed that being Hispanic, non-Hispanic

Black, Asian, or less educated (including having less than a college degree) also reduced medical utilization and expenditures. By contrast, having private or public health insurance, being a woman, having fair or poor health, having activity limitations, and having chronic diseases increased both the likelihood of medical care and the level of expenditures.

The models showed that immigrant status both reduced the likelihood of using any health services and reduced expenditures for those who used such services; therefore, the combined effect of immigrant status on medical expenditures was larger than either effect separately. As described earlier, I used the models to estimate the differences in medical expenditures for the US-born sample if they had had the same characteristics (such as health status, insurance, and race/ethnicity) as the immigrant population, differing only in terms of being US born, an established immigrant, or a recent immigrant. The models showed that the estimated annual total medical expenditure of an average recent immigrant was \$3066 (95% confidence interval [CI]=\$2995, \$3136), or about 20% less than the baseline average for a US-born adult with the same characteristics (\$3814; 95% CI=\$3728, \$3899). The average established immigrant's estimated total expenditures were \$3297 (95% CI=\$3222, 3372; *P*<.001), or 14% less than the average for a US-born adult with the same characteristics. Similarly, the estimated average private and public medical expenditures associated with being a recent or established immigrant were less than those of being a US-born adult (analyses not shown).

These results differ somewhat from those reported by Mohanty et al., who used 1998 MEPS data.<sup>8</sup> One reason for this difference is that the relative expenditures for US-born adults and immigrants changed between 1998 and 2003. Average, unadjusted expenditures for nonelderly US-born adults grew 68% from 1998 to 2003, whereas average, unadjusted expenditures for nonelderly immigrants grew 39% during the same period, slightly more than half as much. Thus, on an unadjusted basis, the nativeimmigrant expenditure gap grew. Mohanty et al. reported that, after adjustment, immigrants' medical expenditures were 55% lower than those who were US born, a gap wider than the one I found. The reason for this discrepancy is that, although Mohanty et al. made adjustments to retransform the logit and linear regression estimates, they did not hold other characteristics of their population constant to isolate the effects of immigration status. By contrast, I used the method of recycled predictions to control for other differences in characteristics of the US-born and immigrant populations.

<sup>&</sup>lt;sup>a</sup>Defined as having lived 10 or more years in the United States.

<sup>&</sup>lt;sup>b</sup>Defined as having lived fewer than 10 years in the United States.

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TABLE 4—Two-Part Multivariate Models of Factors Associated With Annual Medical Expenditures Among Adults Respondents Aged 19 to 64 Years With Any Health Insurance Coverage: Medicare Expenditure Panel Survey, 2003

Factor	Model 1: Likelihood of Having Any Medical Expenditures in Year, OR (95% CI)	Model 2: Log of Medical Expenditures, Among Those Above Zero, Coefficient (95% CI)	
Immigration status			
US born (Ref)	1.00		
Recent immigrant <sup>a</sup>	0.61 (0.45, 0.81)	-0.19 (-0.37, -0.01)	
Established immigrant <sup>b</sup>	0.74 (0.58, 0.94)	-0.13 (-0.25, -0.02)	
Race/ethnicity			
Non-Hispanic White (Ref)	1.00		
Hispanic	0.68 (0.55, 0.85)	-0.19 (-0.28, -0.10)	
Non-Hispanic Black	0.50 (0.41, 0.60)	-0.22 (-0.32, -0.12)	
Asian	0.61 (0.45, 0.82)	-0.36 (-0.51, -0.22)	
Gender			
Men (Ref)	1.00		
Women	3.35 (2.92, 3.85)	0.46 (0.40, 0.52)	
Education			
Any college (Ref)	1.00		
Less than high school diploma	0.46 (0.36, 0.58)	-0.31 (-0.41, -0.20)	
High school diploma	0.62 (0.52, 0.74)	-0.16 (-0.22, -0.10)	
Self-reported health status			
Good/very good/excellent (Ref)	1.00		
Fair/poor health	1.83 (1.34, 2.50)	0.68 (0.60, 0.76)	
Functional limitations			
No limitations (Ref)	1.00		
Any limitations	2.35 (1.81, 3.05)	0.57 (0.49, 0.64)	
Chronic disease			
None (Ref)	1.00		
Has chronic disease	3.86 (3.10, 4.82)	0.59 (0.52, 0.65)	
Income			
≥400% of poverty level (Ref)	1.00		
Income below poverty level	0.64 (0.49, 0.84)	0.06 (-0.05, 0.18)	
100%-199% of poverty level	0.59 (0.48, 0.74)	-0.10 (-0.19, -0.01)	
200%-399% of poverty level	0.78 (0.67, 0.91)	-0.07 (-0.13, -0.01)	
Months of insurance			
Public	1.08 (1.04, 1.12)	0.06 (0.04, 0.07)	
Private	1.08 (1.05, 1.10)	0.05 (0.04, 0.06)	

Note. OR = odds ratio; CI = confidence interval. The models also were controlled for age, employment, marital status, and region of country, but the coefficients were generally not significant.

Table 2 shows that, on an unadjusted basis, recent immigrants' medical expenses were approximately half those of US-born adults, and established immigrants' medical expenses were about two thirds those of

US-born adults. These results suggest that slightly less than half of the overall (unadjusted) gaps in medical expenditures between immigrants and US-born citizens are attributable solely to immigrant status and that

slightly more than half of the overall gaps are attributable to other characteristics, including insurance coverage, health status, and race/ethnicity.

#### **DISCUSSION**

My analysis of a nationally representative survey found that immigrants had significantly lower medical expenses than their US-born counterparts, even after controlling for level of health insurance coverage and other confounding factors. These findings suggest that, contrary to stereotypes, insurance premiums paid for immigrants may actually be cross-subsidizing the medical expenses of those who are born in the United States.

## **Immigrants' Lower Medical Expenditures**

As noted by Mohanty et al. and Goldman et al., the low per-person medical expenditures for immigrants indicate that immigrants consume a disproportionately small share of the nation's health care costs and do not create a major financial burden for the nation's health care system.<sup>7,8</sup> Recent immigrants are responsible for a little more than 1% of the amount spent by federal, state, and local governments for health care, although they constitute 5% of the adult population. Recent administrative data also reinforce these findings. In 2006 and 2007, US hospitals, emergency physicians, and ambulance companies documented providing an average of \$221 million per year of uncompensated emergency care for undocumented aliens under a special federal reimbursement program called Section 1011, which equals about 0.03% of total American hospital expenditures.<sup>22,23</sup> (These estimates adjust values upward when payments were subject to a pro rata cap on payment, so they reflect the actual value of uncompensated care). The Section 1011 data are conservative because some providers probably did not seek reimbursement under the program. However, because any public or private emergency care provider was eligible for federal reimbursement, those who provided any substantial amount of uncompensated care for the undocumented had a strong incentive to seek payment.

I found that even when immigrants were fully insured over the course of a year, their medical expenditures were approximately one half to two thirds as much as those of US-born

<sup>&</sup>lt;sup>a</sup>Defined as having lived 10 or more years in the United States.

<sup>&</sup>lt;sup>b</sup>Defined as having lived fewer than 10 years in the United States.

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adults. Even after adjusting for health status, race/ethnicity, gender, health insurance coverage, and other factors, I found that immigrants' medical costs averaged about 14% to 20% less than those of US-born citizens.

#### **Potential Cross-Subsidies**

I also found that a substantial portion of immigrants was insured but still incurred very low levels of medical expenditure. This finding raises the intriguing possibility that insurance payments made on behalf of immigrants are actually cross-subsidizing care for US-born citizens. It is not possible to say with certainty whether this cross-subsidization is actually taking place, because the MEPS household data do not include total health insurance premiums. On the one hand, insurers do not appear to use factors like race, ethnicity, or national origin in setting or risk-adjusting health insurance premiums, and most states explicitly prohibit insurers and managed care plans from discriminating on the basis of race, ethnicity, or national origin.<sup>24</sup> On the other hand, it is possible that immigrants or their employers are selecting less costly insurance plans, such as plans with higher cost-sharing, which could lead to lower total immigrant medical expenditures. However, immigrants' out-ofpocket payments for care are much lower than those of native citizens, which is not what one would expect if immigrants were subject to higher cost-sharing.

Cross-subsidies are not inherently problematic; an important function of health insurance is to pool risks and use premiums collected from the healthy to pay for the medical care of those who need it. But a cross-subsidy from immigrants to US-born citizens is more problematic in light of evidence of immigrants' limited access to care, 9-13 and such a situation would certainly contradict the assumption that those born in the United States are underwriting the medical care of immigrants. There is little doubt that immigrants' access to health care needs to be improved; thus, the possibility that immigrants are cross-subsidizing care for their US-born counterparts suggests that immigrant health care could be improved if resources were diverted away from immigrant cross-subsidies for US-born citizens and rechanneled into immigrants' care.

To effect such a rechanneling, insurers both public and private-could take steps to reduce language barriers by paying for interpretation or other language services for patients with limited English proficiency. Language barriers contribute to poor access to care, increased risks of medical errors, unnecessary medical testing, avoidable hospitalizations, and patient dissatisfaction with the medical care they receive. 12,25-28 Providing interpreters also has been shown to stimulates patients' use of primary care services.<sup>29</sup> Although federal civil rights policy already requires health care providers to offer free interpretation or language assistance to patients with limited English proficiency,<sup>30</sup> a primary stumbling block is that insurance usually does not pay for language services, giving providers a disincentive to actually provide these services. Private insurers and Medicare do not pay for interpretation, and only a handful of state Medicaid programs pay for them.31

In addition, insurers—particularly public payers-could make efforts to increase the supply of providers, particularly primary care clinicians, who practice in areas with higher concentrations of immigrants. Even though immigrants are responsible for a disproportionately small share of medical expenditures across the nation, they may create more of a burden in areas with high or rapidly growing immigrant populations. Areas with rapid growth in Hispanic populations, predominantly in the South and Midwest, often have an insufficient number of safety-net providers, such as community health centers or public or charitable hospitals, causing the capacity of these providers to be sorely challenged.<sup>32</sup> Insurers could provide incentives for clinicians and safety-net facilities to practice in medically underserved areas, such as those whose immigrant populations have

Finally, the government could improve the equity of access to health insurance by reinstating legal immigrants' eligibility for Medicaid and SCHIP, undoing the restrictions imposed under 1996 federal legislation.<sup>5,9</sup> This would help increase the number of low-income immigrants who have health insurance coverage, reducing the number of uninsured US residents and lessening the strain on safety-net care providers.

#### **Limitations**

A limitation of this study is that MEPS, like other national data sets, does not include data on legal or citizenship status of immigrants. However, census data do indicate that recent immigrants are primarily undocumented or legal noncitizens and that established immigrants are primarily naturalized citizens or legal noncitizens. Recent or undocumented immigrants may be undersampled in MEPS, although the distributions of recent and established immigrants and USborn adults are similar to those found in census data. Data on medical expenditures are subject to measurement error, and aggregate national medical expenditures in the 2002 MEPS were about 13.8% below those reported in the National Health Expenditure Accounts.21

#### **Conclusions**

There is little reason to believe that the United States is spending "too much" on health care for immigrants. The medical care used by immigrants—both recent and established—is small compared with the amounts used by their US-born counterparts. But we might be able to spend more wisely and fairly. Resources could be rechanneled to support additional care for immigrants, such as language services and additional primary care and coverage; to reduce health care disparities; and to improve the quality of care provided to Hispanics, Asians, and other foreign-born people.

#### **About the Author**

Leighton Ku is with the Department of Health Policy, School of Public Health and Health Services, George Washington University, Washington, DC.

Requests for reprints should be sent to Leighton Ku, Department of Health Policy, The George Washington University, 2021 K St NW, Suite 800, Washington, DC 20006 (e-mail: leighton.ku@gwumc.edu).

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## **Human Participant Protection**

No protocol approval was necessary, because the data used were secondary survey data that contained no identifying information.

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