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Uncompensated Care Cost: A Pilot Study Using Hospitals in a Texas County

ALBERTO COUSTASSE, ANDREA L. LORDEN, VISHAL NEMARUGOMMULA, and KARAN P. SINGH

Abstract

The financial ramifications of uncompensated care cost (UCC) on the healthcare industry have been difficult to quantify. With the lack of a standardized definition of *uncompensated care* and the need to account for the uninsured, indigent, and immigrant populations, the authors identified $190 million of UCC from Southwestern border hospitals for emergency room treatment of undocumented immigrants and $934 million of uncompensated care charges for 23 hospitals in a Texas county, which translated to $353 million of UCC. Although lawmakers passed the Medicare Prescription Drug Improvement and Modernization Act (2003) to address the growing imbalance, the shortfall of funds highlights the growing crisis and need for policy intervention.

Numerous problems in the U.S. healthcare industry have been studied and reported in the literature (Chassin, Galvin, and the National Roundtable on Health Care Quality 1998; Institute of Medicine [IOM] 2002, 2004; Ashby 2002). Some of these concerns were addressed in President Clinton's 1994 Healthcare Reform Proposal (White 1994; Bilheimer and Colby 2001). Although this initiative did not pass into law, it allowed the struggles of the healthcare industry to be publicly debated among scholars and healthcare professionals. One of the issues highlighted in the proposal was uncompensated healthcare costs (Gage and Regenstein 1999; Bilheimer and Colby 2001).

In the present article, we detail the process of a descriptive study of uncompensated care (UC) in the United States using hospital data from Tarrant County, Texas, located in the Dallas–Forth Worth metroplex. We include the methods by which hospitals are paid for care provided, an estimation of real costs from Tarrant County hospital charges, and policy implications of UC.

Definitions of *UC* vary greatly from hospital to hospital, community to community, and state to state (American Hospital Association [AHA] 2006). Ashby (2002) defined *UC* as the cost of care that is not paid directly by patients or insurers to hospitals and providers. The United States--Mexico Border Counties Coalition (USMBCC) and MGT of America (2002) defined *UC* as the charges that providers are unable to collect for services provided. The USMBCC also described bad debt charges and charity care charges as two distinct types of uncompensated care USMBCC and MGT of America 2002). The AHA has combined hospital bad debt and charity care costs to estimate total hospital unreimbursed care provided to the medically indigent and underinsured. Although UC can include other unfunded costs of care, such as underpayment from Medicaid

and Medicare, it should be noted that the AHA UC figures do not include Medicaid or Medicare underpayment costs (AHA 2006). Last, the Centers for Medicare & Medicaid Services, U.S. Department of Health and Human Services (CMS; 2005), defined *UC* as the uncollected and unrecoverable cost of services rendered to the uninsured and indigent population. Included is the cost of care, expressed in undiscounted hospital charges, provided to eligible recipients of state healthcare benefits less any reimbursement for those services by the state, Medicaid, or another payer. However, CMS also stated that UC does not include bad debt or payer discounts (CMS 2005).

Generally, UC data are expressed in terms of hospital charges. Nevertheless, charge data can be misleading, particularly when comparing different types of hospitals or hospitals with different payer mixes. For this reason, the AHA data on hospital UC have been expressed in terms of costs. The Association of American Medical Colleges (AAMC; 2005)--which represents approximately 400 major teaching hospitals and health systems, all 125 accredited U.S. allopathic medical schools, and 96 professional and academic societies--agrees with the AHA regarding inclusion of bad debt in the calculation of uncompensated care cost (UCC).

Many of the data that CMS collects in hospital cost reports are tied to payment and the Medicare trust fund whose data CMS ensures are audited rigorously. Data on UC do not impact Medicare payment, and hence they are not audited. Furthermore, the most complete data-collection instrument utilized in the cost report is relatively new. Because hospitals are still adjusting to reporting UC data in a standard format, the UC data are less consistently reported to CMS than are data used to request payments (AHA 2006).

With roots in housing the infirm and the poor, the hospital mission to provide care has evolved with technology, societal demands, levels of charity care, and the populations they serve. This includes the methods used to finance their mission. In passing the Emergency Medical Treatment and Active Labor Act (EMTALA; 1986), the government required all healthcare facilities providing Medicare or Medicaid services, regardless of the healthcare facility's mission, to care for all in need of emergency medical assistance, regardless of abilityto pay or citizenship status (Health Policy Staff, Missouri Foundation for Health 2005). While EMTALA has been providing funding through the Medicare Prescription Drug Improvement and Modernization Act (MMA; 2003) for qualified portions of the uncompensated emergency care, other sources of UC have grown (TrailBlazer Health Enterprises 2006). These sources include nonemergent care for the uninsured, underinsured, or indigent populations, and bad debt attributable to unwillingness by parties to pay bills or those applying for personal bankruptcy because of excessive medical bills (Buczko 1994; Brotman 1995; Himmelstein et al. 2006).

The Kaiser Commission on Medicaid and the Uninsured (Hadley and Holahan 2004) reported the burden placed on U.S. hospitals by UC to be approximately $25.6 billion. Because this enormous financial burden impacts recipients of care, providers, and third-party payers, UC has remained a prevalent issue in the U.S. healthcare system. Recipients of healthcare services have contended with inflated healthcare charges, high insurance premiums, and other financial costs that have been identified as one of the main barriers in access to healthcare services (Carrillo et al. 2001).

Identified Reasons

The most commonly cited cause for UC is the use of healthcare services by the uninsured, underinsured, poor, and immigrant populations (Anderson 2006). Clearly, the financial burden placed on the healthcare system requires efficient use of its limited resources. However, this has been hindered by the lack of access to primary care by the uninsured, underinsured, and immigrant populations, and it has forced these populations to access primary healthcare through more costly emergency rooms (Centers for Disease Control and Prevention [CDC] 2005; Texas Hospital Association [THA] 2006). The politically controversial provision of healthcare to the immigrant population has also contributed significantly to UC. The immigrant population grew to 10.5 million authorized individuals in 2003, and the number of illegal immigrants, though hard to determine, has been estimated at over 10 million (Hoefer, Rytina, and Campbell 2006). Immigrants are often cited as a considerable drain on the healthcare system; however, 76% of the uninsured people are U.S. citizens (Code Red 2005). It is interesting that no significant relation has been identified between UC expenditures and a state's percentage of noncitizen immigrants (Castel et al. 2003). Prior to this finding, California enacted Proposition 187, which required federally funded healthcare facilities to deny services to immigrants and report them to the government (Ziv and Lo 1995; Mailman 1995). Although the costs associated with urgent care management for trauma, burn treatment, and premature infant care have also been identified as contributors to increased UC because of their unpredictability and tendency to often exceed insurance limits, the impoverished population faces multiple and complex comorbidities, which have also led to significantly increased UC (IOM 2004; Anderson 2006). In fact, the economic burden created by the costs of a serious or prolonged illness is the single most common cause of family bankruptcy (IOM 2002).

Funding

Currently, hospitals are partially paid for providing healthcare services to the uninsured through funding mechanisms within the federal and state governments, and the majority of the funds comes from Medicaid. Under CMS, three mechanisms exist for hospitals to obtain payment. First, Disproportionate Share Hospital (DSH) funds are distributed according to federal laws requiring Medicaid to pay higher rates for hospitals serving a disproportionately large number of Medicaid and low-income patients. These funds come from CMS and match state Medicaid funds to offset hospitals' expenses from these types of patients (CMS 2002, 2005). Second, Upper Payment Limit (UPL) is a financing mechanism used by Texas to provide supplemental payments to hospitals when patients have reached their insurance payment ceiling. Diagnosis Related Groups (DRGs) have defined their reimbursements to hospitals according to diagnosis or procedure and then risk-adjusted them by age, complications, coexisting conditions, or discharge status (CMS 2002; Texas Health and Human Commission 2006).

Texas and Tarrant County Hospitals

Texas had a total of 520 acute care hospitals as of November 2006, of which 45% were owned by for-profit organizations, 30% were nonprofit organizations, and 25% were public hospitals. The payment of healthcare costs for the indigent population is allocated to the counties through the Indigent Health Care and Treatment Act (1989). This legislation directed counties to

establish hospital districts, support public hospitals, or create a County-Based Indigent Health Care Program (CIHCP) to meet the county's responsibility (Texas Health and Safety Code 1985). Although the act is effective in establishing minimum standards of healthcare for indigent persons, it does not take into account the geographic, economic, and demographic differences that complicate the uniform delivery of healthcare across counties (Amarasingham, Pickens, and Anderson 2004). The difficulties caused by these circumstances are illustrated by the decision in September 2004 by Tarrant County to discontinue provision of nonemergency care to undocumented immigrants, a growing trend in Texas (Warner 2004). Given that Texas has the nation's highest uninsured rate at 24.6% (Bishop & Associates 2002; U.S. Census Bureau 2006; Taxpayers Network 2008) and an illegal-immigrant population estimated to be more than 1 million (Immigration and Naturalization Services Office of Policy and Planning [INS] 2000), Texas hospitals spent more than $9.2 billion in UC in 2004 (THA 2006). With the uninsured and underinsured populations driving the uncompensated trauma care costs to unmanageable levels (Strayhorn 2003, 2005) and 80% of those who lack insurance being employed full- or part-time (Hadley 2003; THA 2006), it is no surprise that a panel of state medical schools warned of an impending healthcare crisis as the ranks of the uninsured explode and urban public hospitals strain under the burden (Code Red 2005). In addition, it was revealed that more than 200,000 Tarrant County residents--or about 15% of the population--could not afford healthcare during illness (Barbee 2006).

METHOD

To identify uncompensated care, we used data from three sources: (*1*) the USMBCC and MGT of America 2002 report "Medical Emergency Cost of Uncompensated Care in Southwest Border Counties," (*2*) the CMS report "Federal Reimbursement of Emergency Health Services Furnished to Undocumented Aliens: FY 2006" (CMS 2006), and (*3*) the 2004 Texas Hospital Association survey that the Center for Health Statistics within the Texas Department of State Health Services (THA 2004) compiled. We describe each of the data sets below:

1. The USMBCC report was developed and compiled by a management research and consulting firm (MGT of America) in 2002 (USMBCC and MGT of America 2002). Having collected demographic, socioeconomic, and health data, which included the number of hospital and emergency room visits per 1,000 persons, we used a set of 19 metrics to construct an individualized statistical profile of the border counties. Seven counties, all in Texas, experienced difficulty in obtaining some data elements and had unverifiable data, leaving 17 of 24 counties with verifiable data. We used the following variables from the USMBCC report: county and state, total UC for hospitals, and estimated UC for hospitals because of undocumented aliens.

2. The "Federal Reimbursement of Emergency Health Services Furnished to Undocumented Aliens: FY 2006" report was compiled by CMS (2006). In the present study, we based state inclusion criteria on a state's either having an estimated illegal population of at least 250,000 persons or sharing a border with Mexico. We used the following variables from the CMS report: estimated unauthorized resident population, state allocations based on percentage of undocumented aliens, number of apprehensions of undocumented aliens by state, and state allocations based on the number of state alien apprehensions (CMS 2006).

3. The 2004 THA survey (THA 2004) was compiled by the Center for Health Statistics of the Texas Department of State Health Services and addressed charity care charges and financial data for acute care Texas hospitals. Further, the survey provided hospital data utilizing two formats. First, the annual survey of hospitals provided the state's only comprehensive source of information on UC, beds and utilization, revenue, Medicare--Medicaid utilization, and types of hospital services. Second, the annual statement of community-benefits standards form collected charity care, government-sponsored indigent healthcare, and other community benefits information. From this study, we used the following variables: number of beds, hospital type of ownership, charity charges, bad-debt charges, and total UC charges (Texas Department of State Health Services 2005).

We based the cost–charge ratios developed to estimate total uncompensated care costs on Friedman et al.'s (2002) model. Their model reflects hospital characteristics such as hospital size by the number of beds, whether the setting is rural or urban, hospital's type of ownership, and whether each hospital is a teaching or nonteaching hospital.

RESULTS

The UCCs for hospitals in the 17 reported Southwestern border counties and estimated costs due to undocumented aliens in 2000 are presented in Table 1. The counties that reported the highest expenditures were San Diego County in California and El Paso and Hidalgo Counties in Texas, with costs because of undocumented immigrants of $76,185,000, $30,102,000, and $19,666,000, respectively. When we combined and analyzed the 17 counties by state, California, with only two border counties, led with the highest UCCs because of undocumented aliens ($79,024,000). Of UC dollars, Arizona's border counties had the highest percentage of UCC due to undocumented aliens (31.7%), whereas New Mexico's border counties had the lowest (13.2%). On further examination of these four border states, New Mexico's border counties spent the fewest estimated UC dollars ($45,430,000), whereas Texas's border counties had the highest estimated UCCs ($393,265,000).

Uncompensated emergency health services were partially paid through federal funds provided by the MMA (2003). We examined allocations to seven states that had an estimated 250,000 or more undocumented immigrants or that were Southern border states. These states included Arizona, California, Florida, Illinois, New Mexico, New York, and Texas. Although four of the five Southern border states met this population criterion, New Mexico estimated only 39,000 undocumented immigrants within its borders. California and Texas estimated undocumented immigrant populations of 2,209,000 and 1,041,000, respectively. These states led with the highest reimbursement allocations ($52,677,852 and $24,824,647, respectively). Other funding dollars allocated on the basis of apprehended illegal aliens for Arizona were $40,901,975. This amount reflected 600,838 apprehensions by Arizona, followed by Texas with $22,166,241 for 325,617 apprehensions. Illinois received no reimbursement for its 1,879 apprehensions (see Table 2).

TABLE 1. Estimated Uncompensated Care Costs in Southwestern Border Counties in 2000 (United States–Mexico Border Counties Coalition and MGT of America 2002)

County	Total uncompensated costs (thousands of $)	Estimated uncompensated costs due to undocumented aliens (thousands of $)	Estimated uncompensated costs due to undocumented aliens (%)
Arizona			
Conchise	5,925	1,698	28.7
Pima	75,934	24,650	32.5
Santa Cruz	1,612	385	23.9
Yuma	13,952	4,105	29.4
Total	97,423	30,838	31.7
California			
Imperial	10,995	2,839	25.8
San Diego	284,451	76,185	26.8
Total	295,446	79,024	26.7
New Mexico			
Dona Ana	43,678	5,455	12.5
Luna	1,752	563	32.1
Total	45,430	6,018	13.2
Texas			
Brewster	1,599	322	20.1
Cameron	56,047	14,903	26.6
Culberson	905	61	6.7
El Paso	185,393	30,102	16.2
Hidalgo	91,055	19,666	21.6
Maverick	4,625	901	19.5
Starr	1,942	406	20.9
Val Verde	5,342	994	18.6
Webb	46,357	6,320	13.6
Total	393,265	73,685	18.7
Grand total	831,564	189,565	22.8

In Tarrant County, Texas, 23 hospitals provided acute, rehabilitative, and long-term care in their facilities during 2004. In all, 16 facilities provided acute care, and most of these facilities belonged to three integrated health systems. Health System 1 included six hospitals and one rehabilitation facility and was the dominant healthcare organization in Tarrant County. One public hospital; one children's center, which acted as a referral center for the public hospital; and two rehabilitation systems with five private hospitals all existed in the county. There was also one stand-alone hospital belonging to another health system not present in Tarrant County (see Table 3).

DISCUSSION

Uncompensated emergency services have implications beyond the loss of hospital revenues. Healthcare costs and insurance premiums are rising, in part because of growing levels of UC. In turn, rising health insurance premiums threaten businesses'--particularly small businesses'--abilities to offer employees affordable healthcare benefits. Although Medicaid is the primary funding channel for the indigent and uninsured, the partial payments, which can take months to

process, do not do enough. In some instances, excessive unpaid medical bills for undocumented immigrants have forced local healthcare providers to reduce staff, increase rates, and cut back services (Code Red 2005; University of Texas System [UTS] 2006). Because the definition of *UC* is inconsistent in the literature and among agencies, the legislature's ability to provide funding and create payment channels has been complicated.

In 2000, 23% of the UCC in Southwestern border hospitals (approximately $190 million) was allocated to treat undocumented immigrants for emergency medical services. Total UCCs for these hospitals were approximately $832 million, of which 47.3% were generated in Texas's border counties, as shown in Table 1. In comparison with other states, California and Arizona led with the highest reimbursement for UC through CMS and the MMA (2003), with $66,641,038 and $47,650,474, respectively. These figures were based on the percentage of the state population attributable to undocumented immigrant care and the number of illegal immigrants apprehended by authorities. Texas, with 3.6 times the number of illegal residents of Arizona, received only $46,990,888 (see Table 2).

To further complicate the issue, states use their funds differently. Most states distributed their funds through the DSH program or the UPL system to funnel money to the hospitals with the largest load of indigent patients. In this way, these funds are handled more like a block grant than like premiums based on a per-member-permonth basis. The Indigent Health Care and Treatment Act (1989) allocated responsibilities for the care of indigent persons to the county level, and a proposal to amend the legislation is currently under review. Legislators have realized that many county hospitals provide UC for the surrounding counties. As some counties with high rates of UC can no longer afford to provide *charity* care for local needy residents, legislators are working to develop a financial formula to address the discrepancy among county hospitals. Further, policymakers have the opportunity to move in new and creative directions, such as developing rural healthcare cooperatives, using waivers under the Health Insurance Flexibility and Accountability initiative (Tobler 2003) to achieve a Medicaid buy-in, addressing the high percentage of the working class uninsured in Texas, and increasing the floor of eligibility criteria for indigent care (Amarasingham, Pickens, and Anderson 2004). UC not only is a problem for emergency rooms, but also has been identified in acute care, rehabilitation, and long-term facilities. This sample of hospitals provided UC at charges of $982,161,442, of which nearly $500 million originated in charity charges. The estimated real cost is approximately $353 million, and although this number is an estimation of real costs, it demonstrates the magnitude of local UCC. Thus, it is important for hospitals to have well-defined policies and financial practices to cope with the impact illuminated by these numbers.

In the examination of costs associated with uncompensated care in Tarrant County, we encountered difficulties, as UC charges were available, whereas the cost–charge ratios were proprietary for each hospital and therefore absent from all public sources. Although we estimated cost–charge ratios through the model provided by Friedman et al. (2002), this limitation in the available data indicates the need for additional research and analysis.

Whether the volume of charity care is attributable to the inconsistent definition of *UC* or the presence of charity care in all healthcare settings is unclear. What is clear is that UC was found

TABLE 2. Federal Reimbursement of Emergency Health Services to Hospitals for Treatment of Undocumented Aliens: Fiscal Year 2006 Allocations, by State (Medicare Prescription Drug Improvement and Modernization Act of 2003)

State	Estimated unauthorized resident population, January 2000[a] (thousands)	Allocations based on percentage of undocumented aliens (fiscal year 2006; $)	Number of apprehensions[b] (July 2004–June 2005)	Allocations based on alien apprehensions ($)	Fiscal year 2006 allocations[c] ($)
Arizona	283	6,748,679	600,838	40,901,975	47,650,474
California	2,209	52,677,852	205,116	13,963,186	66,641,038
Florida	337	8,036,413	10,290	700,487	8,736,900
Illinois	432	10,301,871	1,879	0	10,301,871
New Mexico	39	930,030	69,943	4,761,340	5,691,370
New York	489	11,661,145	7,447	505,951	12,168,096
Texas	1,041	24,824,647	325,617	22,166,241	46,990,888

Note. Totals do not include amounts that will be rolled over from the fiscal year 2005 allocations.
[a]Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services 2006. [b]Statistic Division of Immigration and Naturalization Services (M. Hoefer, N. Rytina, and C. Cambell 2006). [c]Department of Homeland Security (CMS 2006).

TABLE 3. Uncompensated Care Charges: 2004 Texas Hospital Annual Survey of Tarrant County Healthcare Facilities (Texas Department of State Health Statistics 2004)

Facility	Beds	Type	Bad debt charges ($)	Charity charges ($)	Total charges ($)	Charge–Cost ratio	Estimated total costs ($)
Health System 1							
Hospital A	378	NFP	31,204,730	17,160,761	48,365,491	0.34	16,444,266
Hospital B	710	NFP	34,679,484	69,581,670	104,261,154	0.34	35,448,792
Hospital C	234	NFP	99,266,390	25,201,376	124,467,766	0.43	53,521,139
Hospital D	18	FP	8,567,442	33,332	8,600,774	0.39	3,354,301
Hospital E	78	NFP	3,675,167	2,326,551	6,001,718	0.49	2,904,841
Hospital F	157	NFP	7,336,326	6,654,632	13,990,958	0.43	6,016,111
Rehabilitation facility	15	NFP	2,155	166	2,321	0.49	1,137
Total			184,731,694	120,958,488	305,690,182		117,690,587
Health System 2							
Hospital A	523	NFP	15,785,403	9,217,344	73,537,491	0.34	25,002,747
Hospital B	190	NFP	12,051,610	4,276,815	16,328,425	0.43	7,021,222
Hospital C	77	NFP	836,836	NA	836,836	0.49	410,049
Total			28,673,849	13,494,159	90,702,752		32,434,018
Health System 3							
Hospital A	326	FP	41,984,080	5,158,813	47,142,893	0.33	15,557,154
Hospital B	320	FP	14,827,875	3,002,497	17,830,372	0.33	5,884,022
Hospital C	144	FP	26,829,385	2,608,420	29,437,805	0.33	9,714,475
Total			83,641,340	10,769,730	94,411,070		31,155,651
Rehabilitation System 1							
Facility A	62	FP	335,999	517,678	853,677	0.39	332,934
Facility B	60	FP	524,921	81,994	606,915	0.39	236,696
Facility C	65	FP	568,997	10,875	579,872	0.39	226,150
Total			1,429,917	610,547	2,040,464		795,780
Rehabilitation System 2							
Facility A	80	FP	8,522	0	8,522	0.39	3,323
Facility B	55	FP	199,960	0	199,960	0.39	77,984
Facility C	160	FP	2,340,045	0	2,340,045	0.33	772,214
Total			2,548,527	0	2,548,527		853,521
Other individual facilities							
Public hospital	459	PUB	102,032,000	331,706,000	433,738,000	0.34	147,470,920
County Children's Medical Center	282	NFP	18,401,588	1,520,049	19,921,637	0.43	8,566,303
Hospital System 4 Hospital A	213	NFP	11,248,296	21,423,824	32,672,120	0.43	14,049,011
Long-term Hospital	70	FP	436,690	0	436,690	0.39	170,309
Total			132,118,574	354,649,873	486,768,447	1.59	170,256,543
Grand total			433,264,774	500,529,515	982,161,442		353,222,112

Note. FP = for profit; NFP = not for profit; PUB = public; NA = not available.

in nonprofit, for-profit, and public hospitals. With reported UC charges amounting to almost $1 billion for one county in Texas, the anticipated costs must be significant for the rest of Texas and the United States. Undocumented immigrants, uninsured persons, underinsured persons, and impoverished persons have contributed significantly to UC. High costs and low levels of compensation are threatening the viability of emergency rooms and public hospitals around the nation. In the present study, we illustrated the escalating crisis created by uncompensated healthcare, with its multitude of financial, social, and health ramifications. Despite myriad complex issues associated with UC and the attempt by the MMA to address the growing imbalance, the shortfall of funds highlights the growing crisis and the urgent need for policymakers to intervene.

Further research detailing the extent and composition of UCC is also needed. By identifying these costs, healthcare administrators can allocate available funds efficiently while addressing the need for additional funding. To develop more effective programs and policies to support the economic viability of the healthcare facilities that provide healthcare to the uninsured, underinsured, immigrant, and indigent populations, healthcare stakeholders need a solid foundation of accurate cost information.

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