Home Health Care Fraud in the 1990s:
Did Region Play a Role?

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Abstract

The Medical Expenditure Panel Survey (MEPS) can be used to suggest patterns of over treatment and under treatment as components of health care fraud. This study identified likely over treatment in the provision of home health services in the rural South and West during the early and mid 1990s. (Reforms in 1997 reduced the amount of fraud.) These areas had significantly higher figures in home health care days, home health care charges, and home health care expenditures than other areas of the country at the same time. These findings suggest that Diane Vaughan's theories of organizational crime causation are true; i.e., this crime is caused by the prospect of falling profits, lack of regulation, and decentralization.

Introduction

Even with some under treatment existing due to managed care, patterns of over treatment will exist as long as fee for service remains one of the organizing principles for provider compensation. Accordingly, this article uses the Medical Expenditure Panel Survey (MEPS) to examine one of the more likely areas for ongoing over treatment: home health care fraud. Home health care is likely to be an area plagued by aggressive provider behavior for a number of reasons. It is poorly supervised, not subject to a high level of fiscal oversight, and the patient is rarely aware of the amounts being charged for his or her care. Because of increased opportunities for fraud, the number of home health care agencies increased exponentially during the early and mid 1990s, before reforms in 1997 began to control their proliferation. This article demonstrates that the amount of aggressive behavior by home health care agencies differed according to geographical areas and theorizes as to why these differences existed.

Organizational Deviance, Crime, and Fraud

Organizational deviance occurs when businesses break community norms in order to succeed. The norms of significant sections of such an organization must be deviant ones, even if not all departments behave in deviant ways. Managers must support misbehavior, and actors required to perform deviant roles must be socialized to do so (Ermann and Lundman, 2001). Such socialization depends upon actors perceiving business success to require innovative deviance (Merton, 1957). Deviance is thus likely to occur when local deviant norms begin to be

seen as "normal" through a process of differential association (Sutherland, 1978)-- that is by modeling and learning based upon one's experience within one's new [deviant] organization. Environmental factors making this more likely include falling company profits and increased presence of competition when business operations are decentralized and relatively unregulated because firms are naturally anxious to insure their own survival if they can (Vaughan, 1992). In large firms decentralization may be necessary for organizational deviance, because top managers can make relentless demands of subunits while giving them little formal discretion and providing inadequate resources with which to accomplish inflexible goals (Clinard, 1983). Unit managers are then likely to violate community norms in order to meet sales or revenue requirements set by higher headquarters, while providing top management the plausible excuse that it is not aware of this behavior. Because victims of these actions may never discover their victimization, or may feel themselves at a disadvantage *vis a vis* experts who have deceived them, they may feel disinclined to take action even if they become aware that they have been victimized (Schlegel and Weissburd, 1992).

A subset of organizational deviance, organizational fraud, constitutes actual *white collar crime*, whereas organizational deviance need not actually be criminal. Fraud is the use of deception to receive payments to which one is not entitled, and occurs frequently in health care (Anderson and Robinson 1992; Freudenheim 1993; Kerr 1991; Kerr 1992), because of the relatively undefined nature of many medical problems and medical interventions, as well as the screen of professional expertise behind which much practice occurs. "Estimates of the overall annual losses in the United States have ranged as high as $100 Billion" (Friedrichs 2004, p. 95). Significantly, much medical fraud occurs because practitioners and health care organizations believe that they have been underpaid by health insurers or the government relative to the amount of work they have done (Friedrichs 2004).

Home Health Care Fraud

Home health care, a system that provides services for patients when they leave the hospital but require continuing care, is especially vulnerable to fraud. In order to qualify for the service under Medicare, a major payer for home health care, one must be homebound and require one or more of the following on a continuing basis: (1) intermittent skilled nursing, (2) physical therapy, or (3) speech pathology services (Federal Register 1995). Most of this care entails a nurse or nursing assistant coming to a patient's home several times a week and tending to his or her surgical wounds, use of orthopedic support devices, personal hygiene, and/or passive and active exercise. , Home health care is particularly susceptible to fraud because of its unique characteristics, as follows:

> (1) Medicare covers an unlimited number of visits per patient.

(2) Beneficiaries pay no co-payments except on medical equipment.
(3) Patients do not receive explanations of benefits (EOBs) for bills submitted for home health services.
(4) There is limited direct medical supervision of home health care services provided by non-medical personnel. (Health and Human Services 1995)

Unlimited coverage is a virtual invitation to fraud because there are no limits to what can be paid out to providers. Because they are not required to make co-payments, patients are likely to be indifferent to the amounts charged. Without EOBs, patients will not usually even be aware of these amounts. Lastly, lack of medical supervision means that a licensed physician is unlikely to acknowledge responsibility for charges. Even if one is involved, he or she can claim not to have been aware of abusive practices.

Because of these considerations, this sector is likely rife with illegality (Sparrow 1996). In services provision, fraud can include claims for visits not made, visits to beneficiaries not homebound, visits to beneficiaries not requiring a qualifying service, and visits not authorized by a physician. Fraud also frequently occurs through claims for indirect costs; that is, funds provided by Medicare to cover overhead expenses not authorized under the category of direct visits. These have historically included claims for "entertainment, travel, lobbying, gifts, and other expenses unrelated to patient care such as luxury automobiles and cruises" (Health and Human Services 1995). Kickbacks also occur in home health care. Agencies pay physicians referral fees, offer beneficiaries free services for switching agencies, or provide hospitals free "discharge planners," who are actually shills for these agencies. They are also apt to provide illegal incentives to retirement homes for referring their residents en masse. Home health care agencies can quickly serve these residents by perfunctory "gang visits," while collecting a separate fee for each elderly person (Health and Human Services 1995).

Historically, total home health care spending substantially increased from $3.1 billion in 1990 to $16.7 billion in 1996. The home health care percentage of Medicare payments rose from 2.9 percent in 1990 to 9 percent in 1997. The number of home health care agencies increased from 5,730 to 10,518 between 1990 and 1997. The average number of visits per beneficiary doubled from 33 to 76 per year (Health and Human Services 1998). Such provider flooding of health care markets often marks situations where illegality is present because of a perceived need to compete hard to survive. It can also signal the existence of large amounts of profit potential available in these markets (McConnell and Brue 1992). When the number of psychiatric hospitals tripled in Texas between 1984 and 1988, these facilities used illegal means to recruit business (Vandenburgh 1999). In home health care, approximately 40 percent of Medicare payments should not have been made according to the federal government, and resulted in losses of $2.6 billion in the 15-month period immediately prior to 1998 (Health

and Human Services 1998). Medishares Home Care of Tennessee billed the government at least $1.2 million for unnecessary services between 1994 and 1996. Lubbock Care Associates submitted more than $500,000 in fraudulent claims to Medicare prior to 1998 (Department of Justice 1999).

The Question of Geographical Variation

Patterns of variation may occur in home health care fraud. One likely difference is regionalism. The Northeastern and Midwestern parts of the United States received most of the Northern European immigration in the latter part of the nineteenth and early part of the twentieth centuries (Phillips 1999). This area still values European-style social legislation and tends toward well-regulated health and social service infrastructures. Much of the union organizing activity of the twentieth Century took place in this section of the country. The presence of a majority of the Catholics in the United States in this area has influenced construction of a large number of religious not-for-profit hospitals (Bluestone and Bluestone 1993). Because the bulk of heavy industry is also located there, urban areas are larger (Rubin 1996), leading to the construction of larger hospitals than those found in other areas. This combination of non-profit status, regulation, and size of facilities suggests the general likelihood of staid, non-aggressive behavior on the part of health care organizations.

The South and West, by contrast, did not receive massive waves of immigrants and did not adopt as much regulative social legislation in response to union pressure. Because the United States already possessed an industrial core, these areas still remain more rural (Phillips 1999). Industry is likely to be agriculture, information, or light manufacturing. Firm size is likely to be small, and to be located in the competitive (as opposed to monopoly or state) sector of the economy (O'Connor 1975), where wages and benefits lag behind the large-scale industries of the North and near Midwest. With few exceptions, city size is also likely to be smaller, with cities having smaller size health facilities, which are more to be likely for-profit. It is no accident that virtually all of the for-profit hospital systems that emerged during the period 1970-1995 began and are headquartered in the South (Lindorff 1992). Health firms there are not as likely to be non-profit in nature or religiously owned.   Because of hospitals' small sizes, they stand to gain more than Northern facilities in terms of economies of scale from joint administration or joint purchasing if they are purchased and agglomerated. Active buying and selling of Southern and Western hospitals throughout the 1980s and 1990s helped create health care markets based upon seeking maximum profit, rather than fulfilling public service missions.

Similarly, the two areas also differ in degree of regulation, with the South and West far less likely to be highly regulated. All but two of the states abolishing federally initiated certificate of need (CON) regulations (mandating community health care construction planning) by the mid-1990s are located there (Burda

1971). In addition, these areas give greater cultural approval to aggressive entrepreneurism in health care (Vandenburgh 1999). Significantly in terms of white collar crime, they also appear to be seats of much of the boiler room (telephone scamming) activity taking place outside of New York City (Stevenson 2000). This may occur as much due to the general transient quality of Sunbelt businesses -- which conveniently have lower barriers to entry (experiencing low rents, utilities, and taxes) -- as to differences in social norms, however.

Because of these factors, it is important to confirm whether regional variation accounts for different, more aggressive utilization patterns in the South and West. Because home health care is closely linked to other health entities, depending on them as it does for referrals, it should reflect any general level of aggressiveness, hence organizational fraud, found in regional health care markets. Because home health care receives less scrutiny, the level of aggressiveness found may actually be higher than in other regional health markets.

Because both the Northeast-Midwest and the South-West contain urban and rural areas, one can also speculate that there is a rural-urban difference, as well as a regional one. It is likely that home health care agencies in rural areas are more aggressive, because they receive less supervision from referring physicians and health organizations. This is in line with Vaughan's (1992) formulation that organizational structure can be a precipitating factor in organizational deviance, with a distributed organization more likely to deviate. A referral network is not, strictly speaking, one organization, but because referral sources exert a degree of potential control on agencies (because they can dry up business), it may function like one in some ways.

Data and Design

A central issue in white collar crime studies is the problem of obtaining data, since persons engaged in dubious business pursuits are not anxious to reveal their activities (Friedrichs 2004). To be sure, one can carry out a variety of studies examining legal system responses, but this means studying these phenomena at some remove from actual crime. It is of greater interest to monitor crime activity itself. It is a rare occurrence when ordinary business data can be used to infer white collar crime activity, but this is occasionally possible. In a study of physician stipends prompting higher psychiatric hospital admission rates, Vandenburgh (1999) used Texas Department of Health data to show that a pattern of deviance existed, as high "physician contract fees" led to high admissions and increased competition led to a greater tendency to pay these fees.

The United States Agency for Health Care Research and Quality (AHRQ) provides the Medical Expenditure Panel Survey (MEPS) data. The last year for

which all data are available prior to substantial reforms that ameliorated much of the home health fraud situation is 1996. The data represents a stratified sample of approximately 21,000 actual or potential health care consumers. The sampling frame is the United States population. The survey is obtained by repeated visits to panel members during the year in order to determine their utilization patterns. In addition, each member's health care providers are contacted in order to corroborate utilization and determine costs. Because the sample is stratified, and because there is an interest in protecting the confidentiality of individual panel members, it presents some disadvantages in terms of geographical exploration. In spite of the fact that a possible use of MEPS is to determine local variations in medical practice, the smallest geographical unit available is a full census region. And because of sampling artifacts likely to occur due to the need to build a representative stratified sample, it might be difficult to generalize about small regional differences even if it were possible to identify them in the data. In spite of these deficiencies, however, it is possible to perform a rough geographical analysis of potentially abusive home health utilization patterns because United States Census Regions 1 and 2 represent the Northeast and Midwest sections of the country, and Census Regions 3 and 4 represent the South and West portions of the country. The use of two combined census regions, as opposed to the four possible, makes it likely that regional differences are due to real differences as opposed to stratification artifacts.

In order to see whether geographical region and rural/urban location made differences in the aggressiveness of home health care for 1996, a two-model regression study was conducted using the MEPS dataset for that year. First obtained were patient-level measures of central tendency for agency home health expenses, charges, and days of care by patient. Although it would have been more desirable to call out these statistics by home health care agency, the MEPS dataset does not provide this information. There are quite a number of significant differences between geographical region and rural/urban locations (not shown), but these were considered noteworthy, absent the use of several controls in the quasi-experimental design. If, for example, there are a larger number of available older panel members in the South and West due to retirement there, and these members utilize more services and more expensive services, then a bias not due to geographical factors is created.

In this study, the dependent variables, Home Health Agency Expenses, Home Health Agency Total Charges, and Home Health Agency Days, all operating in straightforward ways, are regarded as proxy indicators of organizational aggressiveness and likely fraud as they mount up. This is defensible because of the high numbers involved in many of the individual cases. Some home health care consumers utilized over 700 home health care days in 1996. In addition, the use of the control variables Age, which adjusts for the likely effect of seniority on the dependent variables, Nights in Hospital, which adjusts likely illness acuity, and Insurance, which adjusts for the effects of being covered for medical

conditions, tend to place home health care regions on a more level playing field for comparison. The independent variables are region (with Northeast-Midwest coded 1, else 0) and urban (in MSA is coded 1, outside 0) in Model 1, and Rural South and West (coded 1, else 0) in Model 2. The means and ranges of the dependent variables were (1) Home Health Provider Days Mean 1.32, Range 0-710; (2) Home Health Agency Expenses Mean 94.49, Range 0-14,317; and (3) Home Health Visit Charges Mean 124.61, Range 0-18,880.

Because most consumers receive low amounts of home health, the distributions of the dependent variables are very skewed positively. However, the essential linear relationship of the independent variables and the dependent variables is maintained. For this reason a regression methodology is appropriate to evaluate the data.

Findings

Controlling for Age, Nights in Hospital, and whether an individual is insured, no pattern of aggressiveness is apparent when examining Home Health Care Provider Days in terms of the effects of Northeast-Midwest and Urban (MSA) (Table 1, Model 1). If, however, we examine the effect of rural South and West separately (Table 1, Model 2), results are significant for this variable, with the amount of home health care treatment rising by nearly a day. This is even more important when it is noted that the Northeast-Midwest had higher positive outliers than the South and West on all three dependent variables.

Table 1. Non-standardized Coefficients of Regression of Home Health Care Provider Days and Selected Independent Variables

Independent Variable	Home Health Provider Days	
	Model 1	Model 2
Age	0.09*** (0.01)	0.09*** (0.01)
Nights in Hospital	0.61*** (0.03)	0.61*** (0.03)
Insured	0.79*** (0.30)	0.78*** (0.30)
Northeast-Midwest	-0.27 (0.24)	---
MSA	-0.39 (0.28)	---
Rural South and West	---	0.81** (0.34)
R-squared	.04	.04

Note: Standard errors in parentheses
     *** p<.01, ** p<.05, * p<.10

When Home Health Care Agency Expenses are considered, rural location becomes significant, pushing these expenses up by $43.00 (Table 2, Model 1). In Model 2, the effect of rural South and West is even greater, increasing this figure by $56.72.

Table 2. Non-standardized Coefficients of Regression of Home Health Care Agency Expenses and Selected Independent Variables

Independent Variable	Home Health Care Agency Expenses	
	Model 1	Model 2
Age	6.86***	6.88***
	(0.45)	(0.45)
Nights in Hospital	40.97***	40.98***
	(2.37)	(2.37)
Insured	54.11**	56.41**
	(24.73)	(24.65)
Northeast-Midwest	8.29	---
	(19.68)	
MSA	-43.34*	---
	(23.46)	
Rural South and West	---	56.72**
		(28.50)
R-squared	.03	.03

Note: Standard errors in parentheses
       *** p<.01, ** p<.05, * p<.10

Similarly, the effect of the initial independent variables on Home Health Care Agency Charges is unremarkable (Table 3, Model 1). However, residing in the rural South and West is significant, with this area increasing charges by $65.05 (model 2).

Table 3. Non-standardized Coefficients of Regression of Home Health Agency Charges and Selected Independent Variables

Independent Variable	Home Health Care Agency Charges	
	Model 1	Model 2
Age	9.09***	9.11***
	(0.61)	(0.61)
Nights in Hospital	55.28***	55.29***
	(3.26)	(3.26)
Insured	68.29**	71.38**
	(34.03)	(33.92)
Northeast-Midwest	15.37	---
	(34.03)	
MSA	-45.98	---
	(32.28)	
Rural South and West	---	65.05*
		(39.22)
R-squared	.03	.03

Note: Standard errors in parentheses
       *** p<.01, ** p<.05, * p<.10

Absent the later reforms, the data appear to confirm the hypothetical relationship between the Southern and Western regions and more aggressive behavior by home health care organizations, but only if the agencies serve patients in rural areas. Note, again, that rural location alone, has a positive effect on Home Health Care Agency Expenses experienced by patients. This is not likely to be due to increased utilization of home health care as an alternative to hospitalization. Rural patients, at least in the South and West, spend significantly longer periods in the acute hospital (from dataset). Thus, it may be the increased lack of scrutiny from other medical entities that occasions these higher amounts.

Conclusion

This study demonstrated that in 1996, controlling for age, acuity, and the presence of insurance, a combination of the South-West regions and rural locations contribute significantly to increased days and charges in terms of home health care consumed. This may indicate an aggressive pattern indicating the presence of fraud. Rural location alone almost achieves significance in terms of increased home health care expenses. This pattern is not

true of South-West urban areas, indicating that regional practice variation does not play a role. It is possible that increased entrepreneurism, a lack of large non-profit medical entities, and a lack of scrutiny may account for this pattern.

This study has potential deficiencies. One possible challenge is the notion that legitimate regional practice variation may be responsible for elevated utilization patterns in the rural South and West. If this were indeed the case, however, these variations would likely be found in southern and western *urban* areas as well, where they are not found. Providers may be more aggressive in their services in rural areas, as evidenced by higher actual home health care expenses in rural areas in both the North and Midwest and the South and West. However, global rural-urban differences in charges and days of utilization are not remarkable. It is quite possible that the difference in actual expenses is partly due to differences in reimbursement systems, such as differences in the amount of managed care.

One might also argue that perhaps more home health care is legitimately used in the rural South and West because of less hospitalization, i.e. some of the care that might have taken place in a hospital was shifted to a home care setting. This is unlikely, however, because this area is characterized by longer hospital stays than other areas of the country (from dataset), suggesting, by default, that business considerations drive the increased utilization, charges, and expenses.

These findings, insofar as they may suggest aggressive deployment of home health care in a deviant manner, suggest that Diane Vaughan's theories as to white collar crime causation are generally true. The South and West have less regulation. An influx of home health firms (likely to be heavier in the South and West due to relaxing of CON requirements in those areas) has made profitability more problematic. And much home health care in rural areas has decentralized, therefore coming under less scrutiny. Accompanying these classical formulations is the notion of an aggressive regionalism in entrepreneurial businesses in the South and West, which feeds the lack of regulation as well as the general aggressiveness of businesses. For these reasons, the aggressiveness of home heath care business in these areas should not come as a surprise.

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