

# **The Impact of Competitive Bidding on the Market for DME**

*By: Brian O’Roark, PhD and Stephen Foreman, PhD, JD, MPA*

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# **The Impact of Competitive Bidding on the Market for DME**

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**February 11, 2008**

## **Summary**

After two demonstrations limiting the supply of DME through bidding of franchises, CMS has determined to extend bidding for DME franchises to ten MSAs in 2008 and another 70 in 2009. This paper investigates the potential implications of the CMS efforts. We conclude that while artificial limitations on supply of DME may produce what CMS characterizes as short-run “savings,” the payments may represent payments for future market power by suppliers. DME is a competitive market both in theory and in practice. Artificial limits on supply will produce artificial shortages and access problems in the intermediate run (five to 20 years), will ultimately increase price and reduce social welfare and will, more likely than not, result in monopoly profits for the successful bidders that CMS will have little incentive or ability to regulate. The artificial limits on competition will create substantial dead weight loss and misallocation of scarce resources. Jobs will be lost in competitive firms and there will be severe employee dislocations and inefficiencies. Given the small size of national spending for DME and the lack of DME cost increases (particularly in comparison to hospital and physician care and prescription drugs), there does not appear to be much in the way of rationale for the franchise bidding scheme from a public benefit standpoint. Capture theory suggests that the competitive bidding scheme may well result in inefficient and questionable future relationships between CMS and the successful bidders. In truth, the market for DME is already more concentrated than the nature of the industry would suggest is natural. CMS should take steps to enhance competition in the market for DME rather than adopting artificial limitations.

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## 1. INTRODUCTION

Traditionally, the Centers for Medicare and Medicaid Services (CMS) has paid for durable medical equipment, prosthetics, orthotics, and supplies (DME) based on “reasonable cost” as defined by CMS.<sup>3</sup> From 2000 to 2002, CMS conducted a competitive bidding demonstration for DME. Unsuccessful bidders were excluded from the market. The demonstration reduced Medicare costs 17% to 22%. CMS plans to extend the competitive bidding program to 10 MSAs in 2008 and to 70 more in 2009.

As the largest purchaser of durable medical equipment and supplies in the United States, CMS justifies the proposed competitive bidding plan in terms of market efficiency. CMS claims that by bidding for the ability to provide medical equipment, the lowest prices will be assured, thereby garnering cost savings for Medicare.<sup>4</sup> However, the competitive bidding policy contains the seeds of serious long-run unintended consequences: Any short-run cost savings<sup>5</sup> will be more than offset by long-run increases as successful bidders gain market power over time.

Basic economic theory, as well as past experience, opposes restricting the number of suppliers in a market – for good reason. First, interference with competitive markets inevitably leads to higher, not lower, prices. Indeed, the customer base for medical equipment and supplies is expected to grow dramatically during the next 20 years. Artificially restricting the market now will lead to substantial market failure in 10 to 20 years. Second, government intervention in the market for DME will produce reduced efficiency, fewer transactions, and job losses. Third, the

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<sup>3</sup> Indeed, it is strange why CMS has determined that there is a problem with DME spending when CMS fixes DME price.

<sup>4</sup> In 2006, the average Medicare premium increased 13.2%, making the lure of reducing medical costs at any level quite attractive (Health Inflation News).

<sup>5</sup> Indeed, it is not clear that the results of the demonstration sites are generalizable. Also, it is more likely than not that the successful bidders were paying a one-time premium in order to gain a future monopoly. Rather than “savings” the short term reductions are probably in the nature of payment for a franchise fee.

health care industry generally is characterized by special interest capture. This will occur with DME just as it has occurred with hospitals and health insurers.

We will conclude by providing a look at the health care market itself. Durable medical equipment spending is a very small part of the overall health care spending. This calls into question why CMS is focusing on the DME market rather than on other aspects of health care spending that are clearly out of control.

## **2. COMPETITION ALREADY EXISTS SO WHY MESS WITH IT?**

United States antitrust laws promote and maintain competition in the marketplace. Generations of economists and businessmen have explained the benefits of competition and the position of the U.S. in world markets may be a result of this understanding. Mergers of firms are scrutinized by the Department of Justice (DOJ) and the Federal Trade Commission (FTC). Artificial limits on competition are so serious that collusion to limit competition is a criminal offense and may result in the award of treble damages.

There are many reasons why competition is desirable. For starters, prices tend to be lower and consumer options greater. More generally, competition maximizes total “social welfare.”<sup>6</sup> Often, these desired outcomes run counter to the wishes of business. Competition is a difficult environment in which to work. Costs must be controlled, prices tend to be forced down, and profits tend to be reduced. This is good for consumers. While it is difficult for producers, competition forces them to do their best. In this environment everyone gains.

The essence of a competitive market is (1) many small sellers, (2) homogenous products, (3) perfect information regarding quality and price and (4) free entry and exit. The market for medical equipment and supplies is at least workably competitive if not perfectly so.

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<sup>6</sup> When economists use the term social welfare they are speaking of the greater good for everyone.

There are certainly “many” DME suppliers, most of them small, particularly in comparison to large health insurers and for that matter the Center for Medicare and Medicaid Services itself. A quick internet search of business directories produces a 37-page directory for medical equipment and supplies firms. The Medicare approved supplier search engine has so many suppliers for a five state region that the states are divided for search engine use. In April 2006 there were 166,000 active suppliers registered with the National Supplier Clearinghouse.<sup>7</sup> By anyone’s classification, this is more than enough suppliers to categorize the industry as competitive.

Medical equipment and supplies are produced in accordance with published specifications. As noted in CMS’ Booklet on Durable Medical Equipment, “A supplier enrolled in the Medicare program will have a Medicare supplier number. Suppliers have to meet strict standards to qualify for a Medicare supplier number.” Prices for equipment and supplies are (or can be known) at the time of purchase. Accordingly, medical equipment and supplies represent relatively homogenous products – and information regarding quality and price is well known.

For the Medicare program, beneficiaries pay 20% of Medicare approved medical equipment costs (after satisfying a deductible) and CMS pays 80%. Medical equipment suppliers accept CMS payment as payment in full and do not balance the bill. In essence, CMS regulates Medicare price – but it would not have to do so. In any event, price is known.

Finally, entry into the medical equipment and supply market is relatively easy. CMS approval for medical equipment suppliers is straightforward and reinforces product homogeneity and information accessibility.<sup>8</sup> Suppliers must show that they:

- fill orders from their own inventory or under a contractual arrangement,
- oversee delivery of equipment,

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<sup>7</sup> [http://www.cms.hhs.gov/competitiveacqfordmepos/01\\_overview.asp](http://www.cms.hhs.gov/competitiveacqfordmepos/01_overview.asp)

<sup>8</sup> <http://oig.hhs.gov/oei/reports/oei-04-99-00670.pdf>

- answer questions and complaints from beneficiaries,
- maintain and repair rental equipment,
- maintain a physical address at the business site,
- comply with State and Federal licensure requirements,
- honor warranties on equipment,
- accept the return of substandard equipment,
- disclose consumer information (a list of standards) to beneficiaries,
- comply with ownership disclosure provisions of the Social Security Act,
- have appropriate liability insurance.
- comply with Medicare law,
- make no material misrepresentations on their application,
- provide documentation of compliance with standards to CMS upon request,
- notify beneficiaries that they may rent or purchase certain items,
- ensure application is signed by someone whose signature binds the supplier,
- agree not to transfer or reassign a supplier number,
- have a business phone at the facility, and a listing in the phone directory,
- agree not to telemarket to beneficiaries, except in limited circumstances, and
- receive payment in their own name for drugs used with DME.

While lengthy, these standards are not burdensome. In addition, CMS will soon require all suppliers to be “accredited” by an approved accreditation organization – a requirement that was originally set in place as part of Round 1 of competitive bidding. Other than capital investment or, in some cases, payment of royalties, entry into the market is relatively burden free. Exit from the market is equally easy.

In short, the market for medical equipment and supplies is both theoretically and practically competitive and without government intervention, could reasonably be expected to be so for a long time. Regulating this industry by reducing entry fundamentally changes the nature of the market, and while government price controls are viewed as a way around the high priced nature of non-competitive markets, history does not provide support for such a view.

## DEREGULATION (NOT MARKET RESTRICTION) PROVIDES ACCEPTED BENEFITS TO CONSUMERS

The trend in industries over the past 20 years has been one of deregulation. The economic literature is replete with studies that show consumer benefits flowing from deregulation. If an industry can behave competitively, deregulation helps to establish lower prices and greater availability of products to promote consumer welfare. Prices are lower and service is better. Deregulation in many industries has shown to be a tremendous success in terms of price reduction. For example, Crandall and Ellig (1997) show that in the market for long distance telephone calls 10 years after deregulation customers were saving between 40 and 47% over the regulated market. Airline fares had dropped 27%. Truck shipping costs had dropped between 27 and 57% and railroad rates had dropped 44%.

## COSTS OF REGULATION

More consumer choices also lead to preferred outcomes. In competitive markets, firms are driven to reduce costs. The least cost provider has a competitive advantage. Understandably, sellers would like to have protection from competition. This is why they seek trade barriers against foreign firms, and why they expend so many resources attempting to obtain artificial barriers to entry.<sup>9</sup> Why are artificial barriers so bad? First, firms with market power do not have incentives to innovate and to take other steps to keep prices down. Equally important, when prices rise the number of people who can afford the product declines. From an economic standpoint higher prices means less trade and poorer economies. In health care there are practical problems: reduced trade means less access to needed health care.

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<sup>9</sup>This is normally referred to as rent seeking in the economic literature.

The law of demand tells us that as prices go up, the amounts people are willing and able to buy fall. This creates what economists refer to as a “dead weight,” or welfare loss. These losses are particularly poignant in areas where competition is eliminated. To artificially limit competition is to make a conscious decision to increase dead weight loss. Maybe not right away, but just as soon as producers determine that there are no reasonable alternatives to their products.

To prevent shortages in artificially constrained markets, one of two things must happen. The first, and the most efficient, is that prices must go up. However, as noted above, CMS fixes DME price. After exit of a large number of firms from the market, suppliers of DME will demand price increase. Thus, if we want to maintain the future provision of medical supplies, CMS will have little choice but to agree to price increases.<sup>10</sup> The other, and far less preferable option, is that government will have to subsidize the industry so they can afford to keep prices low. This works against the purpose of the bidding process, which, if you recall is to keep prices down. The subsidization merely reallocates the cost to another line in the budget.

Moreover, holding prices artificially low causes other distortions. Consumers do not properly value such goods and services with artificially low prices, and tend to over consume these items. For example, Lutz and Davis (2007) showed that welfare losses are enormous in the natural gas industry due to the price controls. The welfare loss for natural gas is also substantial because consumers who most value the goods may not necessarily be served. This is similar to the findings of Glaeser (1996) who notes that when prices are regulated, the wrong people get goods and services. In other words, goods are not allowed to flow to those people who value them the most.

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<sup>10</sup> This follows the pattern where firms and regulators have been powerless to deal with recent increases in the cost of health insurance.



Katsoulucos and Ulph (1994) explain that in an oligopolistic industry<sup>11</sup>, losses from public welfare rise. Firms spend substantial amounts to maintain a protected position. Additional welfare losses occur as regulators attempt to push prices closer to marginal cost.<sup>12</sup> Lower price is not what oligopolistic producers' desire, so they typically lose their incentive to control cost, particularly if price is regulated. This process, sometimes called "gold-plating," results in excessive spending that the regulator has no incentive or ability to police. Regulators rely on the premise of reasonable return when setting prices in a regulated industry. According to the FTC v. Hope Natural Gas ruling<sup>13</sup> a dual standard for reasonableness is set where earnings should be based on what a similar firm in a non-regulated industry might earn. The second part of reasonableness is that earnings should be enough to add to the capital stock thereby allowing the firm to serve its customers. If firms have no incentive to keep costs low, the regulator, relying on the Hope Standard, will allow prices to rise to maintain the reasonable rate of return (Wood, 2004). Thus, as Katsoulucos and Ulph (1994) conclude, regulated firms do not put enough resources into their research and development as this might cause costs to fall.

The CMS competitive bidding scheme will, at best, artificially create oligopoly markets for the supply of DME. The conduct of the DME suppliers can be predicted to follow the pattern shown for oligopolies by Katsoulucos and Ulph.

Regulations also tend to lead to "x-inefficiency" (Leibenstein 1973). X-inefficiency occurs because producers have little incentive to combine their inputs in an output maximizing fashion. Once the industry is effectively regulated, the monopoly provider will begin to seek rate

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<sup>11</sup> Oligopolies are industries where there are a few suppliers of a good. Oligopoly theory is complex, and incorporates a significant number of variations on firm behavior. Carlton and Perloff (2005) provide a comprehensive examination of oligopoly theory.

<sup>12</sup> In a perfectly competitive market, price will equal marginal cost. That is the customer is only willing to spend what it costs to produce a product. If the price is higher than marginal cost the consumer can go elsewhere to purchase the product at a lower price because of the large number of sellers.

<sup>13</sup> The Hope Standard is based on the ruling in the courts in FPC v. Hope Natural Gas in 1944.

increases because they are no longer forced to adhere to strict budgetary restraints that prevail in competitive markets.

Finally, regulation clearly reduces the incentive to innovate. The examples of the natural gas and airlines industries show that many unexpected innovations occurred after those industries were deregulated. The “hub systems” that developed after deregulation increased the ability of these industries to move product faster. Additionally, the telephone industry now has what seems like an infinite number of options available for the consumer; however, these options only became available after deregulation (Crandall and Ellig). Regulation of the US medical equipment and supplies industry (which could be fairly characterized as innovative) threatens to bring with it a lack in innovation.<sup>14</sup>

In short, CMS claims that increased market intervention in DME will produce “savings.” This contention flies in the face of decades of study, empirical observation and economic theory. Market deregulation – not increased regulation – is more likely to create cost savings which will lower prices.

#### MARKET CHANGES: AN INCREASE IN DEMAND AWAITS

The population in the U.S. above the age of 65 is projected by the U.S. Census Bureau to increase to 20.7% of the population by 2050. This is shown in Table 1. Over the same time, the percentage of people over the age of 85 is expected to increase from two percent to five percent of the population. With increases in technology, life expectancy is also becoming longer. This means the demand for medical equipment and supplies will grow dramatically. Increased

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<sup>14</sup> Indeed, artificial regulation of the DME market could well result in moving research and development in yet one more industry where the US has held a worldwide lead to other countries.

demand coupled with reduced supply is a recipe for huge price increases. This is basic economics. Economies ignore these precepts at their peril.

**Table 1: Percentage of the U.S. population over the age of 65**

Year	Percentage of Population
2010	13%
2020	16.3%
2030	19.6%
2040	20.3%
2050	20.7%

SOURCE: U.S. Census Bureau population projections

Price controls inevitably lead to market shortage. Assuming price controls are successfully set and maintained below a market determined price<sup>15</sup>, there will be those who get the product, whether it be healthcare, gasoline, an apartment, or bread, who are made better off.<sup>16</sup>

Meanwhile, those who are not fortunate enough to acquire the good or service under the price control must resort to other means such as waiting in lines, bribery, or worse.

The simple solution for these shortages is to let the price rise. However, if that is not economically or politically palatable, another solution is to increase the available supply of a good. While governmentally provided production is historically inefficient and market solutions are preferred, government could instead improve the market condition by reducing barriers to entry.

Classically, when governments regulate price, sellers compete based on quality and service. The market for DME currently reflects this. However, CMS has proposed to restrict even this limited quality and service competition in the market for DME by competitively bidding “franchises” to Medicare suppliers. As has been pointed out though, limiting supply is a

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<sup>15</sup> This assumption presumes regulators are able to accurately determine what the market price would be without their interference. If, as in the case of the minimum wage, the market sets prices higher than the price control, the price control is useless.

<sup>16</sup> This happiness of course, assumes that product quality does not change, which is itself a heroic assumption.

recipe for disaster.<sup>17</sup> Economies of scale are important aspects of production, but in a market where competition is alive and well, and small firms make up 85% of the market, economies of scale would not be a reasonable justification for limiting entry in this case. Otherwise the market would adjust without the need for external limitation.

## FRAUD

CMS now claims that the competitive bidding process is needed to eliminate fraud from the DME program; however, competitive bidding processes are rife with distortions related to information asymmetry and with differences in quality. Despite the assertions of eliminating fraud, there is no evidence that if fraud exists competitive bidding will eliminate it – or, for that matter, that the level of any existing fraud justifies the increased costs and inefficiency that will occur when the remaining DME suppliers are given market power.

Wolinsky (1995) has analyzed the markets for “credence” goods. These are goods for which the seller has information that the buyer does not. Additionally, the buyer may never know whether the product he or she purchased is actually provided or that it has been provided properly since the buyer is not an expert. Wolinsky shows that the asymmetrical information between buyers and sellers is likely to lead to a mark up in costs.

This would not be mitigated by a bidding process. In fact, Kamerschen (1998) shows that increased market power, which will be the case as a result of the bidding process, is relevant to determining the potential for practicing fraud. Put another way, if some DME suppliers are currently practicing fraud and are not discovered, they have a competitive advantage. We should expect that they would also be willing to factor their advantages derived from fraud into their

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<sup>17</sup> A quick review of one regulated industry supports this. Cable television is a heavily regulated industry where government prohibits entry. According to surveys, in the cable television sector, price and service satisfaction are ranked among the lowest industries (American Society for Quality).

bids – which would make them more likely to be the successful bidders. And, with market power derived from their successful bids they would be even less likely to be discovered. If they were discovered it would be harder to replace them.

Whitford (2007) notes that there has been scant attention paid to the prospect for collusive behavior in public bidding. If formation of a collusive cartel is a goal of colluding firms, they will affirmatively embrace competitive bidding because collusive behavior becomes easier when there are fewer firms to monitor within a cartel. In fact, Whitford continues, without controlling for the costs of preparing a bid, which includes asymmetries of information, fewer bids are likely to be made. According to Bajari and Fox (2005), collusion is likely in the bid structure for U.S. mobile phone spectrum auctions even with the threat of a bidding war. Similarly, awarding DME franchises runs the risk of producing price collusion at a level that would be impossible under the current DME supplier structure where thousands of firms compete.

Furthermore, the allegations of fraud are vague and unquantified. Even if there is some fraud<sup>18</sup> (not surprising in an industry of this size) there is no indication that its magnitude is in any way material. Observers have concluded that there is approximately five to 10 % fraud in the food stamp program. Despite this, we have neither eliminated the program nor competitively bid franchises to grocery stores. Overall, when most of the benefits of a program are getting to beneficiaries we cannot justify terminating the program or injecting massive inefficiency into it merely to eliminate fraud. While fraud is always a problem, inefficiency can be a greater problem, particularly when it takes the form of distorting the entire structure of an industry.

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<sup>18</sup> CMS pervasively regulates DME firms. If there is fraud CMS has the resources and the ability to root it out. Creating a concentrated market for DME based on this fraud would be a classic case of two wrongs not making a right.

Crawley and Whitford (2007) show that imperfect competition limits the success of bidding processes. The idea that bidding for DME franchises will eliminate the bad behavior of firms in the DME industry is particularly ludicrous. If CMS is concerned about bad behavior it can and should deal with it directly.

Regardless of the reason, the CMS barrier to entry for DME will work against the objective of keeping prices under control. A large company that simply gets larger to address the needs of a growing market, while small businesses are driven out, can be expected to become the epitome of inefficiency. It will have no need to innovate, and in healthcare, innovations are vital. There will be no need to control costs. Unless regulators become vigilant, and they typically have little incentive or ability to do so, the same problems that plagued utility providers will come to afflict this industry as well.

### **3. CONSEQUENCES OF GOVERNMENT INTERFERENCE**

Given that full price and quality competition in the market for medical equipment and supplies would produce gains for all and that such competition could be achieved in this market, what impact can be expected from the competitive bidding that has been proposed?

The Theory of the Second Best suggests that government intervention to deal with imperfections in markets usually works to reduce social welfare rather than improving it. In the current situation what this implies is that if there are problems in the market for medical equipment and supplies based on the lack of price competition, further limits on competition by eliminating competitors from the market will do more harm than good.

Medicare's fixing price schedules, forbidding balanced bidding, and separating consumer responsibility for price from the consumer's (and the doctor's) decision process, will further

undermine the incentive to work towards a viable solution. Indeed, rather than limiting competition by competitively bidding Medicare medical equipment and supply franchises, Medicare should investigate mechanisms that will restore full price competition to the market and reduce the dead weight losses that already exist.

Two hundred years' experience with industry and recent experience with health care insurers shows that firms in concentrated industries cut production and raise price. For example, after 15 years of merger and consolidation, health insurance in the U.S. is now dominated by large health insurance firms with monopoly power. Aetna-US Healthcare, United and Anthem-Wellpoint each provide health insurance to tens of millions of people. Local Blue Cross firms provide health insurance to millions. What have we learned from this experience? They have used market power to increase health insurance premiums by double-digit amounts for years. Their administrative costs and profits are now approximately 20% of premiums – up from 8% fifteen years ago and they enjoy tens of billions of dollars of profits on an annual basis.

The reduction of competition in the market for medical equipment and supplies will follow a similar pattern. After reducing the number of firms in the industry, the remaining firms will raise prices, will increase their administrative costs and inefficiency and will increase profits. Having bid many of the small firms out of the market, there will be no alternative suppliers available to accomplish price reductions. The additional burdens imposed by the concentration will far outweigh any temporary gains in price or in administrative convenience.

#### FURTHER UNINTENDED CONSEQUENCES

Many, if not most, public policy changes have unintended consequences. In this case, the unintended consequences of public policy loom large. As has been detailed, increasing

concentration in the medical equipment and supply industry will result in increased prices and administrative cost inefficiencies. In the future when prices increase, medical equipment and supply prices will spin out of control – just like health insurance costs have done. Medicare beneficiaries currently pay 20% of the cost of their medical equipment and supplies. Medicaid pays the cost for patients who do not have Medicare. Some patients pay for equipment and supplies out of pocket.

When the patient (or their family) cannot afford the cost of medical equipment and supplies in the home setting, he or she is a candidate for admission to a long-term care facility. Long-term care is quite expensive, in excess of \$60,000 per year per patient. Even a small increase in long-term care admissions will result in huge increases in medical care costs, all of which are inefficient because it will relate to misplaced public policy.

In short, before implementing any competitive bidding scheme that reduces competition in the market for medical equipment and supplies, Medicare and Congress should carefully calculate the potential additional costs that may be attributable to future price increases and increased long-term care demand.

## EMPLOYMENT

Yet another troubling aspect of this proposal is that the reduced number of competitors will lead to the loss of employment in this industry. According to the CMS, 85% of the DME suppliers are small. Based on the CMS final rule<sup>19</sup>, the industry classifications that will be most affected by this ruling would be NAICS 446110 – Pharmacies and drug stores, and NAICS –

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<sup>19</sup> <http://www.cms.hhs.gov/quarterlyproviderupdates/downloads/cms1270f.pdf>



532291, Home health equipment rental.<sup>20</sup> The concentration ratios<sup>21</sup> of these two industries reveals that they are already more concentrated than a fully competitive industry would be. Specifically, the top four firms in the Pharmacy and Drug Store sector control 52.8% of all sales and account for 59% of the paid employees.

The next four firms in this industry comprise only 8.2% of sales and 62,110 employees. The next 12 largest firms only hold 4.6% of the market, and add 36,617 employees. The next 30 firms add only 2.8% to sales, while adding only 17,724 workers.

The top 4 firms in Home Health Equipment Rental control 68.2% of sales and 60% of all paid employees. The next four firms add 6.5% to total industry sales and 2,214 workers. The next 12 largest firms add 4.2% to sales, and 1,076 workers. The next 30 largest firms comprise 5.1% of sales, and add 1,727 workers. These data are shown in Table 2.

As a whole, these industries are already somewhat top heavy. The bidding process will inevitably add to this concentration. Early results confirm this. The bidding process has reduced the number of small businesses who can profitably enter this industry. While all firms were encouraged to submit bids, of the 15,000 firms expected to submit bids, only 2,200 were in a position to do so. More concentration, as has been shown in virtually every analysis, results in higher prices.

On the jobs front we can safely assume that in the initial phases of this bidding process, as small firms get pushed out of the market, there will be a loss of jobs. Using figures from the NAICS report, we can deduce that job losses will occur in the smaller firms. While limiting this inquiry to two NAICS numbers is probably an improper generalization of competitive impact, it

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<sup>20</sup> NAICS stands for the North American Industry Classification System. This is the way the U.S. Census Bureau classifies industries. The analysis here is based on the 2002 NAICS data which is the most recent available.

<sup>21</sup> Concentration ratios are calculated by taking the percentage of sales by the top n number of firms and dividing it by the industry total. The Census bureau reports n as the top 4, 8, 20, and 50 firms.

is consistent with the way that CMS has evaluated impact. If the top 50 firms in each industry survive unscathed, and the remaining firms are not able to compete, there is a potential for job losses in the drug store industry of 205,600 workers and in the home health equipment rental industry of 5,670 lost jobs. These individuals will likely find other jobs, probably with the very large DME providers, but the disruption itself will be significant, inefficient, and unnecessary. Even if these assumptions are reduced to 10% of this number, this would amount to over 21,000 jobs lost.

TABLE 2: Concentration ratios for sales and Employment numbers

	<b>Pharmacies and Drug Stores</b>		<b>Home Health Equipment</b>	
	Concentration of sales (%)	Paid employees	Concentration of sales (%)	Paid employees
Top 4 firms	52.8	461,296	68.2	16,269
Top 8 firms	61.0	523,406	74.7	18,483
Top 20 firms	65.6	560,023	78.9	19,559
Top 50 firms	68.4	577,747	84.0	21,286

Source: U.S. Census Bureau, 2002 Economic Census

## SERVICE

Service is or should be another major concern related to CMS’ competitive bidding for DME franchises. Franchise bidding schemes contain built-in incentives that will reduce service to consumers, either through the pricing process itself, or in the event of what economists call “the winner’s curse.”

CMS already fixes prices in the market for durable medical equipment. In a competitive market where price is fixed, firms differentiate themselves in other ways in order to get a competitive advantage. In the market for durable medical equipment, non-price competition

takes the form of competing based on service, a clear benefit for consumers. For example, many DME firms provide 24-hour, seven-day-a-week service to attract customers. This is similar to the competition that occurred in the airline industry under regulation. Prices could not be the focus of competition, so airlines used “white glove service” to attract customers. After the industry was deregulated, prices fell dramatically. However, as everyone knows, service has eroded in an equally dramatic manner.

The difference between the airlines and the market for medical supplies is price. When competitive bidding eliminates competition in the market for DME, service will erode – but price will not be reduced.<sup>22</sup> In the airline industry, competition keeps prices low and the price competition offsets the service declines. Service may be sacrificed, but at least prices stay down.

In a market where competitors are kept out, not only will service fall, but prices will rise. An example of this is cable television. In the market for cable television (generally a competitively bid monopoly or oligopoly), prices continued to rise even though service was poor: customers were often forced to wait for repairs and other on-site services during the hours of 8 am and 4 pm. Once satellite television became viable, wait times dropped.<sup>23</sup> When DME franchises are awarded on the basis of competitive bidding, Medicare beneficiaries can expect substantial diminution in the quality of services provided to them by the few remaining DME suppliers.

When competitive bidding for franchises enters the picture, the incentive to provide service changes significantly. Firms seeking to ensure a successful bid will fix their bid relative to the consumer surplus that they can capture and the current costs that they can avoid. Thus, in

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<sup>22</sup> As discussed above, there may be a short term reduction in price as firms bid for franchises – but that reduction will be followed by a permanent price increase related to the market power awarded to successful bidders.

<sup>23</sup> Prices have not dropped appreciably, however. Successful cable franchise bidders have followed a strategy of providing basic service providing relatively poor coverage for what looks like a low price coupled with service that most consumers want at a relatively high price. In truth, the real price of cable continues to rise.

order to justify the franchise fee (the amount of price reduction in the successful bid), they plan to raise prices in the future and to cut costs – usually by reducing service.

Moreover, the economic literature contains a number of descriptions of “the winner’s curse.” Often the successful bidder will have the low bid because it has made mistakes in estimating its future costs at the time of bidding. In this case the firm that has won the bid has offered to sell the product at an inordinately low price, perhaps lower than it can afford. Thus, the firm must cut costs even below those that it estimated. The most likely target for cost reductions is customer service. This is made even easier by the lack of competition. Consumers have few alternatives so poor service becomes commonplace.

In short, the service provided to Medicare beneficiaries will probably fall victim to the proposed DME competitive bidding scheme – as will future prices paid by CMS and the public.

#### **4. LARGE DME FIRMS MAY WELL “CAPTURE” THEIR REGULATORS**

Capture theory suggest that when developing regulations, regulators naturally seek out those with expertise in the industry. Once these individuals have finished developing the rules, they are often hired by the firms now under the auspices of the regulations they helped craft. Indeed, there may be an expectation as they develop regulations that they will ultimately be hired by regulated firms due to their expertise. This theory, developed by George Stigler (1971), predicts that regulated firms will have greater profits than unregulated firms (and their customers will, as a result, be worse off). This is supported primarily by the reduction in competition that the regulated firms face. The downside of this for the market is that “captured” industries have

little or no incentive to control costs, or innovate. Instead, they expend their profits to artificially maintain their protected status – by fighting off competition.<sup>24</sup>

The literature shows significant support for Stigler's theory. Heinemann and Schuler (2004) address the propensity of financial institutions to be captured. Kalt (1994) identifies a situation in the lumber industry where, when trade duties prevail, capture has occurred, even when there is little empirical support for such an anti-trade position.

Textbooks also provide numerous examples of the occurrence of capture. We might expect that the market for textbooks would be competitive since there are numerous, qualified educators and production costs are no longer high. Despite this, textbook production and sale is an oligopoly and firms spend billions to maintain their protected position.

In many instances a regulated person helps write the regulations. For instance, lawyers must earn a law degree to practice. Since lawyers comprise the bar and grade bar exams, they can effectively limit entry and maintain a limited supply of competitors (Carton and Perloff). Additional support is provided by Spiller (1990) who shows that 49% of patronage appointee regulators went to work in the private sector in related fields after working in government. Peltzman (1976) concludes that capture is likely to occur to benefit well-organized groups with a strong incentive to seek the protection of regulators. This is accomplished at the expense of less-organized groups, typically consumers.

Will those who work in CMS, who put together the competitive bidding scheme, ultimately find employment with the limited number of firms who are allowed to supply DME after the demise of competition? If history is any guide, they will. When they get there, what will they find? Not competition that is in the public interest. Instead, they will discover an

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<sup>24</sup> Indeed, the concentration discussion in the preceding section suggests that the proposed competitive bidding scheme may be more easily explained by capture than by any desire to reduce costs.

industry characterized by insider knowledge and networks, high levels of profits, and substantial executive compensation.

## **5. WHY DME?**

According to national health expenditure figures provided by CMS, in 2005, the latest year for which statistics are available, total US health care spending was almost \$2 trillion (\$2000 billion), \$1.9 trillion for health services and supplies. The makeup of this spending was as follows:

- \$611 billion for hospital care
- \$421 billion for physician services
- \$201 billion for prescription drugs
- \$143 billion for administrative costs and net cost of private health insurance
- \$121 billion for nursing home care
- \$86 billion for dental services
- \$57 billion for other personal health care
- \$55 billion for other professional services
- \$47 billion for home health care
- \$34 billion for non-durable medical products
- \$24 billion for durable medical equipment

Only 1.3% of this spending went for durable medical equipment and another 1.8% for non-durable medical products. By contrast, 33% went to hospital care, 23% to physician care, and 11% to prescription drugs. Moreover, over the past five years the annual average spending increase was 12% for health insurance administrative costs, 11% for prescription drugs, 9% for home health care, 8% for hospital care, and 8% for physician care. Durable medical equipment spending increases averaged 4.4% during the past five years and other non-durable medical product spending increased 2.5%.

Based on these figures a case could be made that spending for medical equipment and supplies in the U.S. is not a problem at all. From 2000 to 2005 the consumer price index rose

13.4%. During this time, spending for non-durable medical equipment and supplies rose 13% and durable medical equipment and supply spending rose 24%. Physician spending increased 46%, hospital spending increased 47%, other personal health care spending increased 54%, home health spending increased 56%, prescription drug spending increased 66%, and health insurance administrative costs increased 76%. The increases for health insurance administrative costs, prescription drug costs and hospital costs are particularly problematic since government-approved consolidation in these industries over the past decade has been dramatic.

All of this suggests that current DME competitive bidding proposals will have a similar impact on the medical equipment and supply industry – not to reduce costs – but to dramatically increase them.

Even if medical equipment and supply spending is somehow construed as a problem, the problem pales in comparison to other health care spending in terms of both size and price increases. The size of spending in other health care cost sectors is as much as thirty times that for durable medical equipment and twenty times that for non-durable medical equipment. Furthermore, cost increases for other sectors of health care spending are two to three times that experienced for medical equipment and supplies. All of which suggests that CMS would be better advised to concentrate on rapidly escalating costs for administration of health insurance, for hospital care, for physician care and for prescription drugs rather than exerting resources and political capital on such a small part of the health care cost equation.

## **6. CONCLUSION**

In short, the proposed competitive bidding for medical equipment and supplies will increase concentration and will reduce competition. Medicare already regulates price and, if price is truly too high, could reduce it. This leaves us to ask, what will we gain from competitive bidding? Administrative convenience or capture, appear to be the only justifiable reasons. There may be a short-run advantage to CMS if successful bidders are willing to cut price (or pay a premium) to gain market power, and it may be easier to regulate fewer firms. However, in the long-run, the bidding scheme will have traded a competitive market for a government-mandated concentrated market. As a result, we will have traded small, short-run benefits for major, long-run problems – poor public policy indeed.



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