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A growing market. As obesity rates rise, so do the opportunities for marketers of specialized services

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Marketing Health Services

2003 Winter

A Growing Market; As obesity rates rise, so do the opportunities for marketers of specialized services

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Almost two out of three American adults are currently classified as overweight or obese, and the skyrocketing economic cost of obesity in the United States includes direct medical costs (estimated at 5%-7% of national health expenditures), lost productivity of workers, and other often intangible but real costs. And the phenomenon of obesity is spreading at an alarming rate, not just in industrialized countries but also in developing countries, where it exists alongside malnutrition.

While the advent of such widespread obesity is well-known, what is less well-known is the impact that this epidemic is having on suppliers of medical services. This article helps provide some insight into the impact of obesity on medical care with a case study of the market for bariatric hospital beds and related services.

Expanded Needs

Bariatrics is the branch of medicine concerned with the causes, prevention, and treatment of obesity. Bariatric patients have special needs including high weight capacities and greater width for beds, commodes, walkers, and other items. Although in the past a standard hospital bed accommodated patients weighing less than 300 pounds, major manufacturers now are producing standard beds for patients weighing as much as 500 pounds. This is sufficient for the majority of morbidly obese patients. These standard beds, however, may have dimensions that can be uncomfortable for very large patients. In addition, lift and transfer capabilities are extremely helpful as very large patients are often difficult to transfer between wheelchairs and beds. Rolling over bariatric patients can also be problematic for anyone of modest physical stature, and special capabilities are appreciated by both patients and providers.

Bariatric beds are a subsector of the larger market for specialty beds, which also includes beds for pulmonary care, wound care, and vascular care patients. An important feature of the beds is the mattresses, which employ air cushioning systems to help distribute the patient's weight to minimize pressure sores, a common difficulty for the morbidly obese. Specially designed mattress overlays that can inflate or deflate also continually help relieve pressure on the skin.

Non-bariatric specialized beds and standard beds are often reasonable substitutes for bariatric beds and are used for a majority of the morbidly obese population (weighing less than 500 pounds). The large selection of beds available varies in weight capacity, dimensions, support systems, and other characteristics.

Several other products are marketed along with beds, including bariatric wheelchairs, walkers, and lift and transfer

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equipment. They are commonly marketed in a basket to equip hospital rooms and are often rented instead of purchased. Hospitals commonly used group purchasing organizations (GPOs) to procure beds and a wide range of related products. This role as middleman confers monopsony power and facilitates lower prices for supplies, which can be passed on to insurers and the public. GPOs have received favorable treatment with respect to antitrust laws, and the domination of the market by GPOs has recently caused public policy concern, particularly regarding barriers to entry that new firms encounter when seeking to market to hospitals.

Estimating Demand

This analysis concentrates on the supply, demand, and market trends of bariatric beds and related equipment in major cities within Arkansas, Louisiana, Oklahoma, and Texas. University of North Texas Health Science Center researchers identified existing and potential markets for bariatric equipment using hospital and demographic data. The potential market measures the maximum level of demand that would exist if bariatric beds were used to accommodate all of the morbidly obese inpatient population. These estimates represent the high end of the range for these beds since many patients may be accommodated by standard or other specialty beds.

Most healthcare facilities optimize use of bariatric beds by either rotating beds within wards or renting bariatric beds when required. Substitution of other specialty beds for bariatric beds significantly decreases current demand for bariatric beds. While the morbidly obese account for at least 2%-3% of the population, this does vary considerably from area to area. Typically only 1% of hospital beds are specialized bariatric beds. Therefore, only a fraction of the morbidly obese inpatient population currently uses bariatric beds.

Hospitals are eager to constrain costs, especially non-reimbursed ones, and Medicare and other insurers commonly do not reimburse for treatment with a primary diagnosis of morbid obesity. We estimated the current market for bariatric hospital beds and equipment in cities of the four-state region assuming the usage rate is 1%. This yielded an estimate of 556 bariatric beds across 20 urban areas with about two-thirds of these being in Texas.

Market Potential

The potential bariatric services market is considerably higher than the current market, leaving opportunity for growth of services including gastric bypass surgery, treatment for diabetes, heart disease, and eating disorders. Exhibit 1 shows that approximately 4%-5% of each state's population has a body mass index (BMI) of 38 or more. These estimates were obtained from respective state health departments. The estimated percentage of the population with a BMI of 38 or more ranges from 2.1 in Fort Smith, Ark., to 8.0 in Brownsville- McAllen, Tex.

The potential bariatric sector is estimated by multiplying the percentage of a Metropolitan Statistical Area's (MSA) morbidly obese population by the number of staffed hospital beds in the respective MSA. Exhibit 1 shows this potential market in the right-hand column. Total demand in all 20 urban areas is 2,403 beds, more than four times the estimated current market and indicative of the current use of non-bariatric beds for morbidly obese patients.

Exhibit 1

Regional analysis of obesity rates

MSA	Number of Staffed Beds in Each MSA [Hospital Statistics 2002]	Percentage of Total Population With BMI >38	Potential Bariatric Sector
Texas			
Houston	11,055	4.5	497
San Antonio	4,468	6	268
Dallas	7,757	3	233

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Brownsville/McAllen	2,121	8	170
Fort Worth-Arlington	3,483	3.5	122
Austin-San Marcos	2,167	4.9	106
Beaumont-Port Arthur	1,826	5.5	100
Corpus Christi	1,678	3.6	60
Abilene	578	4.6	27
Tyler	900	2.6	23
Texarkana	461	4.6	21
Total	36,494	4.6	1,627
Oklahoma			
Oklahoma City	3,657	5.1	187
Tulsa	2,604	3.7	99
Total	6,251	4.6	296
Arkansas			
Little Rock	2,793	2.9	81
Fayetteville-Springdale- Rogers	742	4.8	36
Fort Smith	896	2.1	26
Total	4,431	4.3	143
Louisiana			
New Orleans	5,674	4.1	233
Alexandra	1,839	4.1	75
Shreveport	710	4.1	29
Total	8,223	4.1	337

Note: Study supported in part by SizeWise Rentals Inc.

One of the limitations of this study is the conservative assumption that the morbidly obese are hospitalized at the same rate as the total population. In fact, the obese population is likely to utilize more inpatient days than the non-obese population because it is at a higher risk of developing health problems. Data regarding hospital services by weight or BMI were not available. Our estimates then understate the size of bariatric markets.

Obesity is a problem for all groups of Americans but is more serious in black and Mexican communities. The highest rates of obesity reported in the National Health and Nutrition survey were for African-American and Mexican females with rates of 51% and 40%, respectively. This may explain why Brownsville-McAllen, with a population predominately of Mexican origin, has such a high prevalence of morbid obesity. It is also of concern that many minority communities, especially Hispanics, lack access to providers as a result of poor insurance coverage. This suggests that, in addition to suffering much more from obesity, Hispanics and African Americans are likely to have

more difficulty accessing bariatric services.

Obesity is one of the most important public health epidemics of our time and its incidence is expected to rise. It is also clear that a responsive medical supply and services industry will meet new demand generated by this epidemic. The bariatric market is already rapidly expanding. A 2002 Frost & Sullivan estimate expects it to more than quadruple by 2008. Acute care settings (hospitals) dominate the bariatric segment of the specialty bed market with around 83% of market share. The alternate care market, including home care and long-term care, accounts for most of the remainder of bariatric bed sales and is also growing rapidly. Perhaps bariatric products will eventually come to be used widely in homes to provide the same kind of assistance that they're now providing in hospitals.

Morbidly obese patients have existed for much longer than bariatric products. Bariatrics is not yet considered a necessity, and use of non-bariatric beds and equipment for bariatric patients is used in the majority of cases. Yet a much larger population of bariatric patients and the growing acceptance of their special needs are likely to change the perception of what is a medical necessity and what is merely convenience or luxury. This perception can alter insurer policies toward reimbursement of bariatric services and, at some point, create more demand for this new health subsector.

Associated with the more ubiquitous nature of the epidemic is increasing acceptance of special needs of the obese, especially the morbidly obese. (This has been complemented by increasing reliance on gastric bypass surgery as a leading option for addressing severe obesity.) New products and services tailored for the obese, and efforts to market these products, have met with an increasingly receptive audience. The growth of the bariatric market in the United States, however, is constrained by the reluctance of both public and private insurers to make provisions to reimburse providers for specialized services. Providers remain hard pressed to generate cost savings wherever possible, explaining why the bariatric market remains at only a fraction of its potential at this time.

About the Authors

At the time this paper was written, the authors were all associated with the Department of Health Management and Policy, School of Public Health, University of North Texas Health Science Center. Aravind Rao Nemarkommula is a physician and is doing a residency at the University of Arkansas. He may be reached at arvindnema@hotmail.com. Karan Singh is a professor in the Department of Biostatistics in the School of Public Health at the University of North Texas and may be reached at ksingh@hsc.unt.edu. Kristine Lykens is an assistant professor in the Department of Health Management and Policy at the school and may be reached at klykens@hsc.unt.edu. Peter Hilsenrath is an economist and a professor in the Department of Health Management and Policy at the school. He may be reached at philsenr@hsc.unt.edu.

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GRAPHIC: Illustration, no caption; Exhibit, Obesity trends among U.S. adults 2001, Source: Centers for Disease Control and Prevention