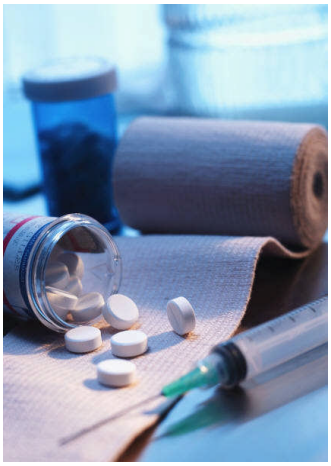

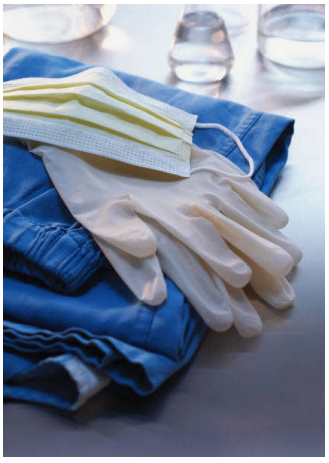

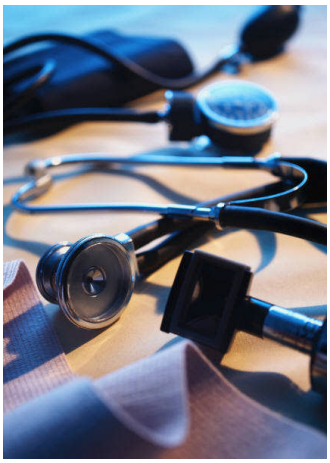

A 2008 Update of Cost Savings and a Marketplace Analysis of the Health Care Group Purchasing Industry

July 2009

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EXECUTIVE SUMMARY

In light of current economic circumstances, there is considerable interest and discussion throughout the country on how to keep health care costs low while preserving service quality. To this end, the health care group purchasing industry makes a significant contribution by continually working to bring down health care costs. Group Purchasing Organizations (GPOs), large national health care purchasing organizations and smaller regional purchasing entities, help health care providers realize cost savings by aggregating purchasing volume and using that leverage to negotiate discounts with manufacturers, distributors, and other vendors. GPOs negotiate on behalf of hospitals and affiliated health care providers to contract for the best value in their purchase of supplies and services. GPOs' bulk buying power helps hospitals and other health care organizations save money by purchasing products and services at lower cost than the individual facilities could purchase themselves.

That GPOs have a significant impact on the marketing and movement of health care commodities in the U.S. and produce substantial savings by removing costs from across sales and supply chains is not an issue. Through the power of aggregated purchasing volume and negotiated contracts with manufacturers, distributors, and vendors, GPOs assure that providers and patients receive needed products and services while realizing significant cost savings. However, while GPO practices result in savings, it is the extent of these savings that has remained a question.

To answer this question, the Health Industry Group Purchasing Association (HIGPA) commissioned a study to examine the size of the GPO marketplace and GPO market penetration and finds that GPOs realize significant costs savings in U.S. national health expenditures. Using the most recent data available, **the study estimates that in Calendar Year 2008, GPOs saved the nation up to $64 billion – with savings to public health care programs ranging from $16 billion to $36 billion.** The study also estimates that Medicare realized savings of between $8 billion and $17 billion in CY 2008 with savings to Medicaid ranging from $5.7 billion to more than $12 billion.

Objective

This study was undertaken to estimate the size, market penetration, and cost savings associated with GPOs in the U.S. health care system – savings generated through their practices in both the private and public sectors, including Medicare and Medicaid.

General Conclusions

- Group purchasing plays an important role and has a significant impact on the U.S. health care system, by providing efficiencies to medical sales supply chains thereby resulting in major cost savings to hospitals and patients.

- ❖ GPOs have a significant impact on the marketing and movement of health care commodities in the U.S. which translates into a reduction in health care costs.

- ❖ GPOs produce substantial savings by removing costs from across sales and supply chains, not by simply contracting for the cheapest products. GPO members and customers receive financial benefits through up-front pricing discounts and reduced administrative costs.

- ❖ GPOs make a major contribution to the U.S. health care industry as a whole by improving not only incremental costs but also much larger systems and processes; these benefits lead to better use of staff and lower total costs.

Specific Findings

- ♦ U.S. Health care sector. ***In CY 2007, U.S. national health expenditures totaled over $2.3 trillion or about 17 percent of U.S. GDP***. This included over $2.2 trillion in spending on health services and supplies. Personal health care expenditures (e.g., hospital care, professional services, nursing home care, home health care, etc.) were almost $2.0 trillion. Public sector health care programs accounted for $974 billion in personal health care expenditures, with the federal government responsible for 73 percent of this amount.

- ♦ Size of GPO marketplace. Based on the most recent data in the Centers for Medicare and Medicaid services' National Health Expenditure Accounts (NHEs), ***the total potential GPO marketplace for CY 2008 was $367 billion***. This sum reflects total hospital non-labor and total nursing home non-labor expenditures.

- ♦ GPO Marketplace penetration. Previous examinations suggest that the upper threshold of GPO market penetration (i.e., expenditures channeled through GPOs) is 80 cents of each dollar of non-personnel expenditures. Providers report that approximately 72 percent of their purchases are made through GPOs. The GPO share of the health care marketplace is estimated at between 72 and 80 percent of hospital and nursing home non-labor expenditures. ***For CY 2008, the total GPO marketplace penetration (hospitals and freestanding nursing homes) ranged between $263 billion and $293 billion*** (roughly 11-12 percent of the total national health care expenditures).

- ♦ GPO Savings. Hospitals and nursing homes report that they save between 10 and 18 percent by channeling their purchases through GPOs. ***For CY 2008, GPOs generated overall savings for the U.S. health care system of between $29 billion and $64 billion. Over 5 years (CY 2007 – CY 2011) the health care system would realize savings of between $164 billion and $361 billion. In CY 2008, GPOs saved public health care programs a significant amount of money—between $16 billion and $36 billion***. In CY 2008, GPO-related savings to the federal government would have totaled between $12 billion and $28 billion. State and local government savings would have totaled between $3 billion and $7 billion. Medicare realized savings up to $17 billion in CY 2008 and Medicaid saved up to $12 billion.

A 2008 Update of Cost Savings and a Marketplace Analysis of the Health Care Group Purchasing Industry

INTRODUCTION

This report is the most recent in a series of studies for the Health Industry Group Purchasing Association (HIGPA) on the importance of GPOs in the U.S. health care system and the savings that are generated through GPO business processes. It includes estimates of the size of the GPO marketplace, GPO market penetration, and the savings that GPOs generated through their business practices in 2008 (CY 2008) in both the private and public sectors including Medicare and Medicaid. It does not account for the cost of resources (FTEs) to conduct contracting currently performed by GPOs.

In 1996, Muse & Associates conducted a study for the Health Industry Group Purchasing Association (HIGPA) on the impact of expanding access to the federal supply schedule for health care products to all public entities.[1] This was followed by an analysis of trends in non-labor health care costs in 1998.[2] A new study on the role of group purchasing organizations (GPOs) in the U.S. health care system was conducted in 2000.[3] The 2000 study was partially updated and expanded in 2002 to examine the impact on public health expenditures if additional restrictions were imposed on GPO contracting processes.[4] The 2002 study was updated in 2005 and again in 2008.[5,6] However, in the 2008 report, the focus was shifted to emphasize the savings that GPOs generate rather than the impact of an erosion in savings due to new legislative or regulatory mandates. With the recent release of new data by the Centers for Medicare and Medicaid Services (CMS), HIGPA requested that the 2008 study be updated again to incorporate this newly available information.

The report is organized into eight sections. Following this brief introduction, the role and contributions of GPOs in the U.S. health care system are discussed. The next section describes the objective of the study. After that, the primary dataset and the important parameters used in the study are described. This is followed by an overview of the methodology that was

[1] Muse & Associates, The Federal Acquisition Streamlining Act of 1994: The Effect of Federal Supply Schedule Expansion on Expenditures for Health Care Products, October 1996.
[2] Muse & Associates, Trends in Non-Labor Costs and Implications for the Health Care Marketplace, October 1998.
[3] Muse & Associates, The Role of Group Purchasing Organizations in the U.S. Health Care System, March 2000.
[4] Muse & Associates, The Role of Group Purchasing in the Health Care system and the Impact on Public Health Expenditures if Additional Restrictions are Imposed on GPO Processes, September 2002.
[5] Muse & Associates, A Cost Savings and Marketplace Analysis of the Health Care Group Purchasing Industry, June 2005.
[6] Locus Systems, Inc., A 2007 Update of Cost Savings and a Marketplace Analysis of the Health Care Group Purchasing Industry, January 2009.

employed in the analysis. The final section of the study provides estimates and projections of the overall savings attributable to GPOs for the total health care sector and for individual public sector health care programs. The report concludes with a short summary of the major findings.

THE ROLE AND CONTRIBUTIONS OF GPOS

The health care sector is a major component of the U.S. economy. In 2007, the most recent calendar year for which CMS estimates are currently available, health care comprised 16.2 percent of total gross domestic product.[7] The health care sector consists of a complex set of relationships among manufacturers, distributors, providers, benefit administrators, regulators, payers, and of course patients, the ultimate end users. Organized group purchasing has existed in the U.S. health care system in some form since at least the early 1900s.

Group purchasing plays an important role and has a significant impact on the U.S. health care system, bringing efficiency to sales supply chains which result in overall cost savings to providers and patients. By organizing providers into purchasing groups that command significant market share, it is possible to negotiate contracts, with associated volume discounts, with manufacturers and suppliers that afford providers the best possible and most appropriate products at the most competitive prices. The volume discounts that group purchasing members receive are attractive to purchasing agents and administrative personnel and help reduce costs for providers and the health care system.

The health care group purchasing industry in the U.S. is composed of both large, national purchasing organizations and smaller regional purchasing entities. Collectively, these organizations are referred to as GPOs. GPOs negotiate on behalf of hospitals and affiliated health care providers to contract for the best value in their purchase of supplies and services and help providers realize savings by aggregating purchasing volume and using that leverage to negotiate discounts with manufacturers, distributors, and other vendors.[8,9] GPO members and customers receive financial benefits through up-front pricing discounts, patronage dividends and distributions, and reduced administrative costs.

GPO contracts cover virtually everything hospitals, nursing home, and other health care providers buy, offering discounted prices on supplies and equipment related to almost every aspect of a health care facility (Exhibit 1).[10,11] In their role as agents, brokers, and facilitators, GPO work closely with their members, customers, and vendors to develop fair and progressive

[7] Centers for Medicare and Medicaid Services, 2007 National Health Expenditures Projections 2007-2017, January 2008.
[8] The Lewin Group, Assessing the Value of Group Purchasing Organizations, May 2003, P. 3 and p. 16.
[9] Schneller, Eugene, The Value of Group Purchasing – 2009: Meeting the Needs for Strategic Savings, Health Care Sector Advances, Inc., April 2009.
[10] Schlag-Mendenhall, M., In Search of a Cost-Control Cure-All, Sanitary Maintenance, March 1988.
[11] Lewin, op. cit., p 4.

contracts for goods and services that deliver innovative programs to meet the objectives of both at mutually agreed upon prices. They present opportunities, choice, and flexibility to their members and customers who can then make their own decisions about which goods and services to obtain. Thus, GPO members and customers are able to select the medical commodities and services they require in a timely manner and at substantial discounts on the prices they are charged, while suppliers receive significant volume.

Exhibit 1
Most Widely Use GPO Contracts

Med/Surgical Supplies	Access to Capital
Medical Equipment	Collections
Pharmaceuticals	Insurance
Dietary	Distribution
Data Processing	Equipment Maintenance
Waste Management	Laundry
Energy/Utilities	Management Consulting
Physician Preference Items	Market Research
Strategic Planning	Risk Management
Claims Processing	Telecommunications

GPOs produce substantial savings by removing costs from across sales and supply chains, not by simply contracting for the cheapest products.[12] By obtaining the best value on the products that their members and customers indicate are most medically appropriate for their use/needs, GPOs have evolved partnerships with both providers and suppliers. Through ongoing consultation with their members, GPOs seek to identify and understand their members' needs and objectives. They then work with their trading partners to develop innovative contracts and programs to meet these needs. The ultimate goal is to achieve savings, not just in terms of the unit costs of individual products, but also in total supply chain management, the overall process by which medical commodities are ordered, delivered, inventoried, paid for, used, and disposed of, including quality improvement and patient safety. Lower costs result from a broad range of improvements in business processes for sourcing, procuring, receiving, storing, transferring, and consuming health care commodities. These improvements include quality control programs, training and education, information sharing/best practice guidelines (e.g., new models/methods to evaluate drugs, devices, therapies, and other products; appropriate staffing models; superior methods offering greater value; inventory control; product evaluations; emerging technologies; etc.), and new software systems (electronic infrastructure/connectivity)

[12] L. Burns and J. Lee, Hospital Purchasing Alliances: Utilization, Services and Performance, Hospital Care Management Review, 2008, 33(3): 203-215.

to streamline business processes and the movement of products. GPOs often act as a bridge between health care providers in an otherwise chaotic health care "system."

Through such improvements in supply chain management, the efficiency and cost-effectiveness of clinical care processes are also enhanced, resulting in better clinical outcomes across episodes of care and provider settings and in savings to both the health care system and the ultimate consumer, the patient. For some providers, the efficiencies and savings realized through group purchasing are significant to their economic viability and their ability to provide services, especially as third-party payers, including governments, seek ways to lower their own costs.

The role of GPOs and their contributions to the U.S. health care industry, therefore, go beyond unit costs of individual products and encompass a much broader focus on systems and processes. Collectively, these improvements lead to increased efficiencies, better use of staff, and lower total costs. Thus, the role and contributions of GPOs result in savings to providers, patients, and the entire health care system.

OBJECTIVE

There is no question that GPOs have a significant impact on the marketing and movement of health care commodities in the United States which can be translated into a reduction in health care costs. However, the size of the impact remains a question. In response to HIGPA's request, the current study seeks to develop updated estimates of the size of the contribution that GPOs make. The primary objective of the updated study is to:

- Estimate the size of the GPO marketplace, GPO market penetration, and the savings that GPOs generated through their purchasing and other business practices in CY 2008, especially in the public sector of the health care market.

HIGPA believes that it is important that its members examine these issues in order to better understand the size and characteristics of the health care system, their role in bringing efficiencies and cost savings, and how new legislative and/or regulatory requirements might affect the group purchasing industry and GPO-related savings.

DATA

The primary data used in this study were compiled from the CY 2007 version of the National Health Expenditure Accounts (NHEs) and (CY 2008-CY 2018) projections released by the CMS Office of the Actuary in January 2009. These were the most recent NHE data available when the study began. For present purposes, CY 2007 will serve as the baseline year. CY 2008 will be the actual focus of the study.

Published since 1964, The NHEs are an annual series of statistics presenting total national aggregate health expenditures estimates and projections for specific calendar years.[13] Within the NHEs, "Total National Health Expenditures" equals the sum of health services and supplies plus investment. "Health Services and Supplies" represents spending for all medical care provided during the year. It is the sum of personal health care expenditures, government public health activity, and program administration and the net cost of private health insurance. "Personal Health Care Expenditures" measures the total amount spent to treat individuals with specific medical conditions.

Hospitals are a major component of the health care sector as well as a primary segment of the GPO marketplace. The nursing home industry is also a significant market for GPOs. However, health care delivery has undergone many changes in recent years and will continue to evolve. In addition to hospitals and nursing homes, GPO members and customers may now include a broad range of health care providers and settings (i.e., hospices, ambulatory surgery centers (ASCs), clinics, outpatient rehabilitation centers, continuous care/assisted living facilities, etc.) Unfortunately, little hard data are available to examine the potential marketplace or GPO penetration for these other types of providers. For example, there are no line items in the NHEs for ASCs. Neither is there any national level or industry data on total expenditures, labor-non-labor expenditure splits, or GPO penetration rates for these other provider types. Due to the lack of data, ASCs and these other types of providers have been deleted from the analysis. Thus, our estimates of the size of the GPO marketplace and the savings that GPOs generate err on the conservative side.

PARAMETERS FOR THE 2008 UPDATE

To maintain continuity with the 2005 and 2008 studies and to minimize the amount of time and costs to complete the project, HIGPA opted to reuse most of the parameters and the same basic methodology that were used in these earlier studies regarding the non-labor component of health care expenditures, GPO market penetration rates, and estimates of GPO savings. As will be seen below, these parameters are employed at specific points in the analysis.

Non-Labor Component

The hospital non-labor component of total hospital expenditures is estimated to be 44.6 percent. This figure was compiled from a review of several years of the American Hospital Association's Hospital Statistics and confirmed by a survey of providers. The corresponding non-labor component for nursing homes is 25 percent. It was determined both by discussion with nursing home industry representatives and a review of nursing home cost report data.

[13] Additional information about the NHEs may be found on the CMS website at www.cms.hhs.gov/nhe/default.asp.

GPO Marketplace Penetration Rates

In earlier versions of this study, industry estimates suggested that 80 cents of each dollar of non-personnel (i.e., non-labor) expenditures is channeled through GPOs. Providers reported that approximately 72 percent (71.71%) of their non-labor expenditures are made through GPOs. More recently, Schneller has reported that hospitals, on average, purchase 72 percent of their goods through GPOs.[14] Thus, the industry estimate (80%) can serve as an upper boundary and the provider estimate (71.71%) the lower threshold to approximate GPO market penetration.

GPO Savings

Providers surveyed[15] reported that they save between 10 percent and 15 percent by channeling their purchases through GPOs. They base such claims on detailed analyses and cost comparisons that they have conducted. The Lewin Group also surveyed hospital purchasing professionals and found that, on average, they save 10.4 percent of the costs of goods by purchasing through GPOs, confirming the lower savings estimate.[16] Schneller, on the other hand, reports overall savings resulting from GPO purchases of 18 percent. Since it is difficult to decide on a precise value, we use all three of the savings rates (10%, 15%, and 18%) to approximate the range of savings that GPOs produce. The consumer price index for medical care (CPI-M) for 2008 (3.7%) and population growth factor of 2.0 percent are used to inflate the estimates forward for five-year and ten-year periods.[17] The total inflation factor used in the current study is, therefore, 5.7 percent.

METHODOLOGY

Data on the health care sector of the U.S. economy are published annually by CMS in the NHEs. For purposes of this study, we use the CY 2007 data release (see Table 1), the most recent NHE data that are currently available. CY 2007 was selected to serve as the baseline year and CMS projections for 2008-2018, which are based on the 2007 NHEs, are used in determining the estimates for the 2008 update.

For CY 2007, CMS has estimated that national health expenditures totaled over $2.2 trillion, 16.2 percent of U.S. gross domestic product. Health services and supplies ($2.098 trillion) are estimated to have accounted for over 93 percent of total national health expenditures. Personal health care expenditures, which include spending on hospital care, professional services, nursing homes, home health care, retail outlet sales of medical products, and public

[14] Schneller, op. cit., p. 11.
[15] Muse & Associates, September 2002, op. cit.
[16] Lewin, op. cit., p. 16
[17] For present purposes, utilization is held constant.

health activities, totaled $1.878 trillion. Public sector health care programs[18] accounted for over $974.2 billion (46%) of expenditures for health services and supplies with the federal government responsible for $712.9 billion (73%) of this amount (see Table 4). Public sector expenditures for personal health care totaled $850.6 billion. National health expenditures for hospitals and freestanding nursing facility care,[19] the two sectors of the health care market of greatest interest to GPOs, are estimated to have been $696.5 billion and $131.3 billion, respectively, in CY 2007. Together, hospital care and freestanding nursing facility services accounted for approximately 44 percent of all personal health care expenditures.

For CY 2008, CMS has projected total national health care expenditures of $2.379 trillion, about 17 percent of gross domestic product (Table 1). Health services and supplies are thought to have totaled $2.227 trillion, the same proportion of total national health care expenditures (93.6%) as they were in CY 2007. Personal health care expenditures were about $1.993 trillion, 6.1 percent higher than in 2007, with public sector expenditures of $910.8 billion (see Table 5). Total health expenditures for hospital care were $746.5 billion in 2008. Freestanding nursing facility care totaled $137.4 billion. Together hospital and freestanding nursing home expenditures accounted for 44 percent of total personal health care expenditures.

Estimation of CY 2008 savings attributable to GPOs begins with the CMS projections based on the CY 2007 NHEs. A “top down” methodology is used to calculate the savings that GPOs generate. This approach begins with total national health expenditures. The data are then disaggregated into various components of health expenditures. From the disaggregated data, the size of the potential GPO marketplace is estimated and the GPO market share determined. Estimates of the dollar savings that result from GPO practices are then determined.

[18] Public sector health care programs include Medicare, Medicaid, other state and local public assistance programs, Workers’ Compensation, state and local hospitals, health care programs of the Department of Veterans Affairs and the Department of Defense, and other public health care programs for personal care.
[19] Data for hospital-based nursing facilities are included in the hospital data.

Table 1

National Health Expenditures by Type of Expenditure: Calendar Years 2003-2018[1]

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
								Amount in Billions								
			Estimates								Projections					
National Health Expenditures: Total	$1,734.9	$1,854.8	$1,980.6	$2,112.7	$2,241.2	$2,378.6	$2,509.5	$2,624.4	$2,770.3	$2,930.7	$3,110.9	$3,313.0	$3,541.3	$3,790.2	$4,061.7	$4,353.2
Health Services and Supplies	$1,623.1	$1,733.1	$1,850.4	$1,976.1	$2,098.1	$2,226.6	$2,350.1	$2,457.8	$2,595.5	$2,746.1	$2,915.8	$3,107.4	$3,322.5	$3,556.1	$3,811.4	$4,086.2
Personal Health Care	$1,447.5	$1,550.2	$1,655.1	$1,765.5	$1,878.3	$1,992.6	$2,099.0	$2,191.3	$2,312.0	$2,446.3	$2,598.3	$2,769.3	$2,961.0	$3,169.0	$3,395.6	$3,639.2
Hospital Care	$527.4	$566.8	$607.5	$649.3	$696.5	$746.5	$789.4	$829.7	$877.4	$931.7	$992.6	$1,056.0	$1,125.3	$1,201.0	$1,284.6	$1,374.1
Professional Services	$543.0	$581.2	$621.5	$661.4	$702.1	$744.7	$785.8	$812.9	$855.2	$901.0	$953.7	$1,017.5	$1,090.1	$1,167.6	$1,250.1	$1,338.1
Physicians and Clinical Services	$366.7	$393.6	$422.2	$449.7	$478.8	$508.5	$539.1	$551.6	$577.0	$604.5	$636.1	$674.7	$719.0	$765.9	$814.6	$865.2
Other Professional Services	$49.0	$52.9	$56.0	$58.7	$62.0	$65.8	$68.7	$71.5	$75.4	$79.5	$84.1	$89.8	$96.2	$102.7	$109.5	$116.8
Dental Services	$76.9	$81.5	$86.4	$90.5	$95.2	$99.9	$101.9	$106.3	$110.9	$115.8	$121.4	$128.5	$136.3	$144.2	$152.5	$161.4
Other Personal Health Care Services	$50.4	$53.3	$56.9	$62.5	$66.2	$70.5	$76.1	$83.5	$91.9	$101.2	$112.0	$124.4	$138.6	$154.8	$173.4	$194.7
Nursing Home and Home Health	$148.5	$157.9	$168.7	$178.4	$190.4	$201.8	$213.6	$225.8	$238.8	$253.5	$269.8	$287.6	$307.0	$328.1	$351.0	$375.8
Home Health Care	$38.0	$42.7	$48.1	$53.0	$59.0	$64.4	$69.7	$74.6	$79.7	$85.7	$92.4	$99.5	$107.3	$115.8	$124.9	$134.9
Nursing Home Care	$110.5	$115.2	$120.6	$125.4	$131.3	$137.4	$143.9	$151.2	$159.2	$167.8	$177.4	$188.0	$199.7	$212.3	$226.0	$240.9
Retail Outlet Sales of Medical Products	$228.6	$244.3	$257.5	$276.4	$289.3	$299.6	$310.2	$322.9	$340.5	$360.1	$382.1	$408.2	$438.6	$472.3	$509.9	$551.3
Prescription Drugs	$174.2	$188.8	$199.7	$216.8	$227.5	$235.4	$244.8	$255.9	$271.6	$288.8	$307.8	$329.8	$355.8	$384.9	$417.6	453.7
Other Medical Equipment	$54.5	$55.5	$57.8	$59.6	$61.8	$64.2	$65.4	$67.1	$69.0	$71.3	$74.4	$78.4	$82.8	$87.4	$92.3	$97.6
Durable Medical Equipment	$22.4	$22.8	$23.8	$24.2	$24.5	$25.2	$25.2	$25.9	$26.6	$27.6	$29.0	$30.6	$32.4	$34.1	$36.0	$38.1
Other Non-Durable Medical Products	$32.1	$32.7	$34.0	$35.3	$37.4	$39.0	$40.2	$41.2	$42.4	$43.6	$45.4	$47.8	$50.5	$53.3	$56.3	$59.5
Program Admin. and Net Cost of Private Health Insurance	$121.9	$128.8	$138.7	$150.4	$155.7	$165.6	$178.8	$190.1	$202.4	$213.4	$225.2	$239.2	$255.3	$273.1	$293.1	$315.0
Government Public Health Activities	$53.7	$54.0	$56.6	$60.2	$64.1	$68.3	$72.3	$76.4	$81.2	$86.4	$92.3	$98.9	$106.2	$114.1	$122.7	$132.0
Investment	$111.8	$121.7	$130.2	$136.6	$143.1	$152.0	$159.4	$166.5	$174.8	$184.6	$195.2	$205.5	$218.8	$234.1	$250.3	$267.0
Research[2]	$35.5	$38.8	$40.2	$41.3	$42.4	$43.6	$44.5	$45.6	$47.2	$49.2	$52.2	$55.5	$59.0	$62.6	$66.3	$70.2
Structures and Equipment	$76.3	$83.0	$90.0	$95.2	$100.7	$108.4	$114.9	$120.9	$127.6	$135.3	$142.9	$150.0	$159.8	$171.5	$183.9	$196.8
Gross Domestic Product	$10,960.8	$11,658.9	$12,421.9	$13,178.4	$13,807.5	$14,290.8	$14,262.2	$14,818.4	$15,514.9	$16,275.1	$17,072.6	$17,892.1	$18,733.0	$19,613.4	$20,535.3	$21,479.9

[1]The health spending projections are based on the 2007 version of the National Health Expenditures (NHEs).

[2]Research and development expenditures of drug companies and other manufacturers and providers of medical equipment and supplies are excluded from research expenditures. These research expenditures are implicitly included in the expenditure class in which the product falls, in that they are covered by the payment received for that product.

Note: Numbers may not add to totals because of rounding.

Source: CMS, Office of the Actuary, January 2009.

SAVINGS ATTRIBUTABLE TO GPOS

POTENTIAL GPO MARKETPLACE

The first step in determining the savings attributable to GPOs is to estimate the size of the GPO marketplace in CY 2008. Beginning with the NHE projections for CY 2008, total national health care expenditures are disaggregated into the major CMS expenditure categories of health services and supplies and personal health care (Table 2). For the reasons stated above, the analysis then focuses on hospital and nursing home expenditures, the two primary components of the GPO marketplace.

Table 2
Potential GPO Marketplace
(Amount in $ Billions)

	2003	2004	2205	2006	2007	2008
National Health Expenditures: Total	$1,734.9	$1,854.8	$1,980.6	$2,112.7	$2,241.2	$2,378.6
Health Services and Supplies	$1,623.1	$1,733.1	$1,850.4	$1,976.1	$2,098.1	$2,226.6
Personal Health Care	$1,447.5	$1,550.2	$1,655.1	$1,765.5	$1,878.3	$1,992.6
Hospital Care Total	$527.4	$566.8	$607.5	$649.3	$696.5	$746.5
% Change	8.0%	7.5%	7.2%	6.9%	7.3%	7.2%
Non-Labor (44.6%)	$235.2	$252.8	$270.9	$289.6	$310.6	$332.9
Nursing Home Total	$110.5	$115.2	$120.6	$125.4	$131.3	$137.4
% Change	4.5%	4.3%	4.7%	4.0%	4.7%	4.6%
Non-Labor (25.0%)	$27.6	$28.8	$30.2	$31.4	$32.8	$34.4
Total Hospital + Nursing Home Marketplace	$637.9	$682.0	$728.1	$774.7	$827.8	$883.9
Total Potential GPO Marketplace = Total hospital non-labor and total nursing home non-labor						
Hospital	$235.2	$252.8	$270.9	$289.6	$310.6	$332.9
Nursing Home	$27.6	$28.8	$30.2	$31.4	$32.8	$34.4
Total	$262.8	$281.6	$301.1	$320.9	$343.5	$367.3

Note: Numbers may not add to totals because of rounding.

Source: Locus Systems analysis of CMS National Health Expenditures Accounts for CY 2007 and Projections for CY 2008-CY 2018.

According to CMS, hospital care and nursing home expenditures totaled $746.5 billion and $137.4 billion, respectively, in CY 2008 (Table 1). These expenditures can be disaggregated into labor and non-labor components. Hospitals report that approximately 45% of their expenditures are non-labor-related (i.e., medical equipments, supplies, pharmaceuticals, food, etc.)[20] This is similar to the 44.6 percent non-labor expenditure figure published by the American Hospital Association (AHA).[21] Applying the AHA percentage to total hospital expenditures yields a CY 2008 estimate of hospital non-labor spending of $332.9 billion (Table 2).

[20] Muse & Associates, March 2000, op. cit.
[21] Health Forum LLC, 2004 Hospital Statistics.

Nursing homes are more labor intensive than hospitals. Hence, a higher proportion of their expenditures go towards personnel costs. Analysis of the Medicare nursing home master cost reports file indicates that approximately 75 percent of nursing home expenditures are labor-related and 25 percent of expenditures are for non-labor purposes.[22] When applied to the CMS' CY 2008 projections for nursing home expenditures, this results in an estimate of non-labor expenditures in freestanding nursing homes of $34.4 billion.

The potential GPO marketplace is the sum of total hospital non-labor and total nursing home non-labor expenditures. Were all non-labor hospital and nursing home spending during CY 2008 channeled through GPOs, the potential GPO marketplace in CY 2007 would have been $367.3 billion.

GPO Marketplace Penetration

The potential GPO marketplace represents the theoretical upper limit on GPO business opportunity. Thus, if every dollar of non-labor expenditures were channeled through GPOs, the GPO marketplace would have totaled over $367 billion in CY 2008 (Table 2). The actual size of the GPO marketplace is probably less than the theoretical upper limit. For whatever reasons, providers do not purchase all of the goods and services they require through GPOs. However, lack of hard data leaves determination of GPO market penetration open to debate.

The conventional industry wisdom suggests that approximately 80 cents of each dollar of hospital non-personnel expenditures is channeled through GPOs. Providers report that, on average, approximately 72 percent of their purchases are made through GPOs.[23] The provider-reported figure was confirmed in a recent study by Schneller who found that the average GPO market penetration rate is approximately 73 percent for all hospitals (with a spread ranging from 30 percent to 90 percent).[24] Using the industry value as an upper boundary and provider responses as a lower threshold, it is possible to estimate a dollar range for GPO marketplace penetration (Table 3).

Applying the upper boundary and lower threshold values defined above, GPO hospital market penetration is estimated at between $238.8 billion and $266.4 billion in CY 2008. Similarly, for freestanding nursing homes, GPO market penetration is estimated to have been between $24.6 billion and $27.5 billion. Together, the total GPO marketplace for CY 2008 was between $263.4 billion and $293.8 billion (about 11%-12% of total national health expenditures).

The next task was to calculate similar estimates of CY 2008 GPO market penetration by public sector health care program (i.e., federal, state and local governments, Medicare, Medicaid, Department of Veterans Affairs, Department of Defense, etc.). This involved several steps.

[22] Muse & Associates analysis of the 2002 Medicare nursing home Master Cost Reports File, December 2004.
[23] Ibid.
[24] Schneller, op.cit, p. 11.

Table 3
GPO Marketplace Penetration
(Amount in $ Billions)

	2003	2004	2005	2006	2007	2008
Hospitals						
Hospital Care Total	$527.4	$566.8	$607.5	$649.3	$696.5	$746.5
Non-Labor (44.6%)	$235.2	$252.8	$270.9	$289.6	$310.6	$332.9
GPO Share @ .7171	$168.7	$181.3	$194.3	$207.7	$222.8	$238.8
GPO Share @ .8	$188.2	$202.2	$216.8	$231.7	$248.5	$266.4
Nursing Homes						
Nursing Home Total	$110.5	$115.2	$120.6	$125.4	$131.3	$137.4
Non-Labor (25.0%)	$27.6	$28.8	$30.2	$31.4	$32.8	$34.4
GPO Share @ .7171	$19.8	$20.7	$21.6	$22.5	$23.5	$24.6
GPO Share @ .8	$22.1	$23.0	$24.1	$25.1	$26.3	$27.5
HCPE Market Penetration						
@ .7171 penetration (Survey)						
Hospital	$168.7	$181.3	$194.3	$207.7	$222.8	$238.8
Nursing Home	$19.8	$20.7	$21.6	$22.5	$23.5	$24.6
Total	$188.5	$201.9	$215.9	$230.1	$246.3	$263.4
HCPE Market Penetration						
@ .8 penetration (HIGPA)						
Hospital	$188.2	$202.2	$216.8	$231.7	$248.5	$266.4
Nursing Home	$22.1	$23.0	$24.1	$25.1	$26.3	$27.5
Total	$210.3	$225.3	$240.9	$256.8	$274.8	$293.8

Source: Locus Systems analysis of CMS National Health Expenditures Accounts for CY 2007 and Projections for CY 2008-CY 2018.

The initial step in creating a dataset of expenditures which would enable calculation of market penetration and, ultimately, savings for each public health care program began with the CY 2007 NHEs. Among the information presented in the 2007 NHEs are aggregate data on expenditures for health services and supplies for each public sector health care programs. The data are further disaggregated by type of expenditure including Personal Health Care (i.e., hospital care, nursing home care, prescription drugs, DME, etc.), Administration and Public Health Activities (Table 4).

Unfortunately, a complete set of similar data is not available in the CMS health care expenditures projections for CY 2008-CY 2018. However, for these years, CMS does project 2007 data forward for all national health expenditures, public health program expenditures, federal health care spending, state and local health care spending, and Medicare and Medicaid program spending for each expenditure category.

Table 4
Expenditures for Health Services and Supplies Under Public Programs, by Type of Expenditure and Program: Calendar Year 2007
(Amount in $ Billions)

Program Area	All Health Services and Supplies Expenditures	Personal Health Care											Administration	Public Health Activities
		Personal Health Care Total	Hospital Care	Physician and Clinical Services	Dental Services	Other Professional Services	Home Health Care	Prescription Drugs	Other Non Durable Medical Products	Durable Medical Equipment	Nursing Home Care	Other Personal Health Care		
Health Services and Supplies: Total Public and Private Spending	$2,098.1	$1,878.3	$696.5	$478.8	$95.2	$62.0	$59.0	$227.5	$37.4	$24.5	$131.3	$66.2	$155.7	$64.1
All Public Programs	$974.2	$850.6	$384.3	$161.3	$6.1	$20.3	$46.4	$80.8	$2.3	$7.5	$81.6	$59.8	$59.5	$64.1
Federal Funds	$712.9	$663.0	$307.8	$133.5	$3.6	$16.1	$35.4	$66.5	$2.3	$7.1	$57.0	$33.7	$40.2	$9.7
State and Local Funds	$261.3	$187.6	$76.6	$27.8	$2.5	$4.3	$11.0	$14.3	$0.0	$0.4	$24.6	$26.1	$19.3	$54.4
Medicare	$431.2	$409.6	$196.2	$96.1	$0.2	$13.7	$23.8	$47.0	$2.3	$7.0	$23.2	-	$21.6	-
Medicaid[1]	$329.4	$303.9	$120.0	$33.2	$5.0	$3.5	$20.5	$18.8	-	-	$54.8	$48.2	$25.4	-
Federal	$186.1	$171.7	$68.2	$19.4	$2.8	$2.0	$11.1	$10.8	-	-	$30.6	$26.9	$14.4	-
State and Local	$143.3	$132.2	$51.8	$13.8	$2.2	$1.5	$9.4	$7.9	-	-	$24.2	$21.3	$11.1	-
Other State and Local Public Assistance Programs	$6.3	$6.3	$1.8	$0.7	$0.1	$0.1	$0.1	$2.8	$0.0	$0.0	$0.4	$0.2	-	-
Department of Veterans Affairs	$33.8	$33.6	$22.5	$3.6	$0.1	-	$0.5	$2.6	-	-	$3.3	$1.2	$0.2	-
Department of Defense[2]	$31.7	$28.6	$16.0	$6.2	-	-	-	$4.8	-	-	-	$1.6	$3.1	-
Workers' Compensation	$32.4	$24.7	$6.2	$12.7	-	$2.4	-	$3.1	-	$0.3	-	-	$7.7	-
Federal	$0.8	$0.8	$0.2	$0.4	-	$0.1	-	$0.1	-	$0.0	-	-	$0.0	-
State and Local	$31.6	$23.9	$6.0	$12.3	-	$2.3	-	$3.0	-	$0.3	-	-	$7.7	-
State and Local Hospitals[3]	$20.6	$20.6	$15.8	-	-	-	$1.5	-	-	-	-	$3.3	$0.0	-
Other Public Programs for Personal Health Care[4]	$24.7	$23.2	$5.8	$8.8	$0.7	$0.6	$0.0	$1.7	-	$0.2	$0.0	$5.3	$1.5	-
Federal	$19.6	$18.7	$4.7	$7.9	$0.6	$0.2	$0.0	$1.1	-	$0.1	$0.0	$4.0	$1.0	-
State and Local	$5.1	$4.6	$1.1	$1.0	$0.2	$0.4	$0.0	$0.6	-	$0.1	$0.0	$1.3	$0.5	-
Government Public Health Activities	$64.1	-	-	-	-	-	-	-	-	-	-	-	-	$64.1
Federal	$9.7	-	-	-	-	-	-	-	-	-	-	-	-	$9.7
State and Local	$54.4	-	-	-	-	-	-	-	-	-	-	-	-	$54.4
CMS Programs Medicare, Medicaid, and SCHIP	$769.6	$721.4	$319.1	$131.5	$5.7	$17.4	$44.3	$67.3	$2.3	$7.1	$78.0	$48.7	$48.2	-

[1]Excludes funds paid into the Medicare trust funds by States under buy-in agreements to cover premiums for Medicaid recipients.
[2]Includes care for retirees and military dependents.
[3]Category comprises state and local subsidies to hospitals and home health agencies, as well as school health programs.
[4]Includes program spending for Medicaid SCHIP Expansion and SCHIP; maternal and child health; vocational rehabilitation medical payments; temporary disability insurance medical payments; Public Health Service and other Federal hospitals; Indian health services; alcoholism, drug abuse, and mental health.

Note: The figure 0.0 denotes amounts less than $50 million. Numbers may not add to total because of rounding. Dashes (-) indicate not applicable. Dollar amounts shown are in current dollars.

By assuming that the proportionate distributions of expenditures by type of expenditure for the other public health care programs not projected by CMS are similar in CY 2007 and CY 2008, it is possible, using the available CMS projections for CY 2008, to impute the "missing" values and create a CY 2008 dataset showing expenditures by public sector health care programs and type of expenditure. This dataset is presented in Table 5.

Through a multi-step process, the dataset was further refined. Initially, personal health care expenditures were divided into GPO-related and non-GPO-related categories (Table 6). GPO-related categories include hospital care, nursing home care, prescription drugs, DME, and non-prescription drugs and other non-durable medical products. The non-GPO-related category is composed of professional services and home health care.

Table 5
CY 2008 Estimates of Personal Health Care Expenditures by Type of Expenditure and Program[1]
(Amount in $ Billions)

Program Area	Personal Health Care Total	Hospital Care	Physician and Clinical Services	Dental Services	Other Professional Services	Home Health Care	Prescription Drugs	Other Non Durable Medical Products	Durable Medical Equipment	Nursing Home Care	Other Personal Health Care
Total Public and Private Spending	$1,992.6	$746.5	$508.5	$99.9	$65.8	$64.4	$235.4	$39.0	$25.2	$137.4	$70.5
All Public Programs	$910.8	$411.6	$171.7	$6.8	$21.8	$51.5	$88.2	$2.4	$8.0	$85.2	$63.8
Federal Funds	$711.8	$330.8	$142.3	$4.0	$17.4	$38.8	$72.7	$2.4	$7.6	$59.8	$36.0
State and Local Funds[2]	$199.0	$80.8	$29.4	$2.7	$4.4	$12.6	$15.5	$0.0	$0.4	$25.4	$27.8
Medicare[3]	$440.9	$211.7	$102.2	$0.2	$14.9	$25.7	$51.6	$2.4	$7.4	$24.8	$0.0
Medicaid[4]	$324.9	$127.8	$35.4	$5.6	$3.8	$23.5	$20.7	-	-	$56.5	$51.5
Federal	$183.6	$72.6	$20.7	$3.1	$2.2	$12.7	$12.0	-	-	$31.5	$28.7
State and Local	$141.3	$55.2	$14.7	$2.5	$1.6	$10.8	$8.7	-	-	$25.0	$22.8
Other State and Local Public Assistance Programs	$6.7	$1.9	$0.7	$0.1	$0.1	$0.1	$3.0	$0.0	$0.0	$0.4	$0.2
Department of Veterans Affairs	$35.6	$23.8	$3.8	$0.1	-	$0.6	$2.8	-	-	$3.5	$1.3
Department of Defense[5]	$30.3	$16.9	$6.6	-	-	-	$5.1	-	-	-	$1.7
Workers' Compensation	$26.1	$6.6	$13.5	-	$2.4	-	$3.3	-	$0.4	-	-
Federal	$0.8	$0.2	$0.4	-	$0.1	-	$0.1	-	$0.0	-	-
State and Local	$25.3	$6.4	$13.1	-	$2.3	-	$3.2	-	$0.4	-	-
State and Local Hospitals[6]	$21.8	$16.7	-	-	-	$1.6	-	-	-	-	$3.5
Other Public Programs for Personal Health Care[7]	$24.6	$6.1	$9.4	$0.8	$0.6	$0.0	$1.8	-	$0.2	$0.0	$5.6
Federal	$19.8	$5.0	$8.3	$0.6	$0.2	$0.0	$1.2	-	$0.1	$0.0	$4.2
State and Local	$4.8	$1.2	$1.1	$0.2	$0.4	$0.0	$0.6	-	$0.1	$0.0	$1.4

[1]The health spending projections were based on the 2007 version of the National Health Expenditures (NHEs) released in January 2009.
[2]Includes Medicaid SCHIP Expansion and SCHIP
[3]Subset of Federal Funds.
[4]Subset of Federal and state and local funds. Includes Medicaid SCHIP Expansion.
[5]Includes care for retirees and military dependents.
[6]Category includes state and local subsidies to hospitals and home health agencies, as well as school health programs.
[7]Includes program spending for maternal and child health; vocational rehabilitation medical payments; temporary disability insurance medical payments; Public Health Service and other Federal hospitals; Indian health services; alcoholism, drug abuse, and mental health.

Note: The figure 0.0 denotes amounts less than $50 million. Numbers may not add to total because of rounding.

Source: Locus Systems analysis of CMS National Health Expenditures Accounts for CY 2007 and Projections for CY 2008-CY 2018.

Next, non-GPO-related expenditures and expenditures for prescription drugs, DME, non-prescription drugs, and other non-durable medical products were deleted. GPOs do not play a significant role in the professional services and home health care components of personal health care expenditures. In addition, while it is recognized that GPOs are involved in the distribution of health care commodities, including pharmaceuticals and medical equipment and supplies, in retail and in institutional settings other than hospitals and nursing homes (i.e. ASCs), lack of available group purchasing industry data on the potential market size, penetration rates, labor/non-labor factors, etc. make it impossible to assess their role in these settings. Therefore, although unfortunate, these categories also had to be removed from the analysis. In the end, the focus is on the hospital and nursing home categories of personal health care expenditures and their distribution across the public sector health care programs.

Applying the same methodology that was used earlier in this study, the labor component was removed from the CY 2008 projections of hospital and nursing home expenditures for each public sector health care program. As discussed above, this determines the potential GPO marketplace for each program.

Table 6
CY 2008 Estimates of Personal Health Care Expenditures by Type of Expenditure and Program
GPO-Related and Non-GPO-Related
(Amount in $ Billions)

Program Area	Total	GPO-Related					Non-GPO-Related[7]
		Hospital Care	Nursing Home Care	Prescription Drugs	Durable Medical Equipment	Other Non Durable Medical Products[6]	
Health Services and Supplies: Total Public and Private Spending	$1,992.6	$746.5	$137.4	$235.4	$25.2	$39.0	$809.1
All Public Programs	$910.8	$411.6	$85.2	$88.2	$8.0	$2.4	$315.4
Federal Funds	$711.8	$330.8	$59.8	$72.7	$7.6	$2.4	$238.5
State and Local Funds[1]	$199.0	$80.8	$25.4	$15.5	$0.4	$0.0	$76.9
Medicare	$440.9	$211.7	$24.8	$51.6	$7.4	$2.4	$143.0
Medicaid[2]	$324.9	$127.8	$56.5	$20.7	-	-	$119.9
Federal	$183.6	$72.6	$31.5	$12.0	-	-	$67.4
State and Local	$141.3	$55.2	$25.0	$8.7	-	-	$52.5
Other State and Local Public Assistance Programs	$6.7	$1.9	$0.4	$3.0	$0.0	$0.0	$1.4
Department of Veterans Affairs	$35.6	$23.8	$3.5	$2.8	-	-	$5.5
Department of Defense[3]	$30.3	$16.9	-	$5.1	-	-	$8.2
Workers' Compensation	$26.1	$6.6	-	$3.3	$0.4	-	$15.9
Federal	$0.8	$0.2	-	$0.1	$0.0	-	$0.5
State and Local	$25.3	$6.4	-	$3.2	$0.4	-	$15.4
State and Local Hospitals[4]	$21.8	$16.7	-	-	-	-	$5.1
Other Public Programs for Personal Health Care[5]	$24.6	$6.1	$0.0	$1.8	$0.2	-	$16.4
Federal	$19.8	$5.0	$0.0	$1.2	$0.1	-	$13.6
State and Local	$4.8	$1.2	$0.0	$0.6	$0.1	-	$2.8

[1]Includes Medicaid SCHIP Expansion and SCHIP
[2]Subset of Federal and state and local funds. Includes Medicaid SCHIP Expansion.
[3]Includes care for retirees and military dependents.
[4]Category includes state and local subsidies to hospitals and home health agencies, as well as school health programs.
[5]Includes program spending for maternal and child health; vocational rehabilitation medical payments; temporary disability insurance medical payments; Public Health Service and other Federal hospitals; Indian health services; alcoholism,drug abuse, and mental health.
[6]Non Prescription Drugs and Other Non Durable Medical Products.
[7]Non-GPO-related expenditures includes professional services and home health care services.

Note: The figure 0.0 denotes amounts less than $50 million. Numbers may not add to total because of rounding.

Source: Locus Systems analysis of CMS National Health Expenditures Accounts for CY 2007 and Projections for CY 2008-CY 2018.

Finally, GPO market share was estimated for the two market penetration rates that industry representatives and providers have reported. The resulting dataset (Table 7) provides the requisite information to determine GPO-related savings. As is evident in Table 7, the GPO marketplace represents a significant volume of health care expenditures.

Table 7
CY 2008 Estimates of GPO Market Penetration by Program
(Amount in $ Billions)

Program Area	Potential GPO Marketplace	GPO Market Share	
		@ 71.71% Penetration	@ 80% Penetration
Health Services and Supplies: Total Public and Private Spending	$367.3	$263.4	$293.8
All Public Programs	$204.9	$146.9	$163.9
Federal Funds	$162.5	$116.5	$130.0
State and Local Funds[1]	$42.4	$30.4	$33.9
Medicare	$100.6	$72.2	$80.5
Medicaid[2]	$71.1	$51.0	$56.9
Federal	$40.3	$28.9	$32.2
State and Local	$30.9	$22.1	$24.7
Other State and Local Public Assistance Programs	$0.9	$0.7	$0.8
Department of Veterans Affairs	$11.5	$8.2	$9.2
Department of Defense[3]	$7.5	$5.4	$6.0
Workers' Compensation	$2.9	$2.1	$2.4
Federal	$0.1	$0.1	$0.1
State and Local	$2.9	$2.0	$2.3
State and Local Hospitals[4]	$7.4	$5.3	$6.0
Other Public Programs for Personal Health Care[5]	$2.7	$2.0	$2.2
Federal	$2.2	$1.6	$1.8
State and Local	$0.5	$0.4	$0.4

[1]Includes Medicaid SCHIP Expansion and SCHIP
[2]Subset of Federal and state and local funds. Includes Medicaid SCHIP Expansion.
[3]Includes care for retirees and military dependents.
[4]Category includes state and local subsidies to hospitals and home health agencies, as well as school health programs
[5]Includes program spending for maternal and child health; vocational rehabilitation medical payments; temporary disability insurance

Note: Numbers may not add to total because of rounding.

Source: Locus Systems analysis of CMS National Health Expenditures Accounts for CY 2007 and Projections for CY 2008-CY 2018.

GPO Savings – CY 2008

Providers report that they save between 10 percent and 15 percent by channeling their purchases through GPOs.[25] They base their claims on detailed internal analyses and cost comparisons that they have conducted. More recent work by Schneller suggests a GPO-related savings rate of 18 percent.[26] If GPOs did not provide such savings to their members, providers would incur additional costs to procure needed products, equipment, and supplies. GPO-related savings for CY 2008 can be calculated for each of the two market penetration rates and three savings rates discussed above. Findings are presented in Table 8.

[25] Muse & Associates, September 2002, op. cit.
[26] Schneller, op. cit., p. 12.

Table 8
GPO Savings – CY 2008
(Amount in $ Billions)

GPOs generate savings of 10%, 15%, and 18%

@ 71.71% penetration, GPO market = $263.4 billion ($238.8 billion + $24.6 billion)

Savings = 10%				Savings*
	0.9X = 263.4	Hospital =	$265.3 billion	$26.5 billion
	9X = 2634	NH =	$27.3 billion	$2.7 billion
	X = 2634/9		$292.7 billion	$29.2 billion
	X = $292.7 billion			
	Savings* = $292.7 billion - $263.4 billion =		$29.3 billion	
				Savings*
Savings = 15%	0.85X = 263.4	Hospital =	$280.9 billion	$42.1 billion
	85X = 26340	NH =	$28.9 billion	$4.3 billion
	X = 26340/85		$309.9 billion	$46.4 billion
	X = $309.9 billion			
	Savings* = $309.9 billion - $263.4 billion =		$46.5 billion	
				Savings*
Savings = 18%	0.82X = 263.4	Hospital =	$291.2 billion	$52.4 billion
	82X = 26340	NH =	$30.0 billion	$5.4 billion
	X = 26340/82		$321.2 billion	$57.8 billion
	X = $321.2 billion			
	Savings* = $321.2 billion - $263.4 billion =		$57.8 billion	

@ 80.0% penetration, GPO market = $293.8 billion ($266.4 billion + $27.5 billion)

				Savings*
Savings = 10%	0.9X = 293.8	Hospital =	$296.0 billion	$29.6 billion
	9X = 2938	NH =	$30.4 billion	$2.9 billion
	X = 2938/9		$326.4 billion	$32.5 billion
	X = $326.4 billion			
	Savings* = $326.4 billion - $293.8 billion =		$32.6 billion	
				Savings*
Savings = 15%	0.85X = 293.8	Hospital =	$313.4 billion	$47.0 billion
	85X = 29380	NH =	$32.3 billion	$4.8 billion
	X = 29380/85		$345.7 billion	$51.8 billion
	X = $345.6 billion			
	Savings* = $345.6 billion - $293.8 billion =		$51.8 billion	
				Savings*
Savings = 18%	0.82X = 293.8	Hospital =	$324.9 billion	$58.5 billion
	82X = 29380	NH =	$33.5 billion	$6.0 billion
	X = 29380/82		$358.4 billion	$64.5 billion
	X = $358.3 billion			
	Savings* = $358.3 billion - $293.8 billion =		$64.5 billion	

*Total savings values may differ due to rounding.

Source: Locus Systems analysis of CMS National Health Expenditures Accounts for CY 2007 and Projections for CY 2008-CY 2018.

At a non-labor market penetration rate of approximately 72 percent, the size of the GPO marketplace was estimated at $263.4 billion in CY 2008. If estimated GPO savings of 10 percent were to disappear, instead of spending $263.4 billion in CY 2008 on the pharmaceuticals, equipments, supplies, etc. that they needed, hospitals and nursing homes would have had to spend $292.7 billion to obtain the same products. If GPO savings are 15 percent of expenditures and were eliminated, hospital and nursing home spending on materials and supplies would have risen from $263.4 billion to $309.9 billion in CY 2008. For a savings rate of 18 percent, hospital and nursing facilities would have spent $321.2 billion to obtain the products they needed to serve their patients.

The analysis was replicated for a GPO market penetration rate of 80 percent of non-labor expenditures. At an 80 percent market penetration rate, CY 2008 provider expenditures channeled through GPOs are estimated to have been $293.8 billion. Had GPO savings of 10 percent disappeared, spending would have increased to $326.4 billion. If savings of 15 percent were eliminated, hospital and nursing homes would have spent $345.6 billion in CY 2008 to obtain the needed equipment, materials, and supplies. If GPO savings of 18 percent were eliminated, spending would have increased from $293.8 billion to $358.3 billion in CY 2008

GPO-Related Savings

In 2008, GPOs generated overall savings for the U.S. health care system of between $29.3 billion and $64.5 billion. Over five years (CY 2008-CY 2012) the health care system would realize savings of between $164.2 billion and $361.4 billion. Over ten years (CY 2008-CY 2017), GPO-related savings are estimated at between $380.8 billion and $838.3 billion.

All public health care programs would between $16.3 billion and $36.0 billion in CY 2008. GPO-related savings to the federal government would total between $12.9 billion and $28.5 billion in CY 2008. State and local governments would save between $3.4 billion and $7.4 billion. Each public sector health care program also realized GPO-related savings in CY 2008.

Over a five-year period, projected savings for all public sector health care programs would be between $90.3 billion and $201.7 billion. For the federal government, GPO-related savings would total between $72.3 billion and $160.0 billion. Savings to state and local governments would be between $19.1 billion and $41.5 billion. Each public sector health care program would also experience significant savings over the period.

Ten-year savings for the entire health care system are projected at between $380.8 billion and $838.3 billion. Public sector health care programs would save between $211.9 billion and $467.9 billion. Savings to the federal government would range between $167.7 billion and $370.4 billion. State and local governments would realize savings of between $44.2 billion and 96.2 billion. Other public health care programs would also save considerable money over the period.

The overall savings attributable to GPOs can be calculated as the difference between current estimates of the GPO marketplace and estimates of hospital and nursing home purchases if GPO savings/discounts were eliminated. **Therefore, for the two rates of GPO market penetration, the analysis indicates that GPOs generated overall savings for the U.S. health care system of between $29.3/$32.6 billion and $57.8/$64.5 billion in CY 2008.**

The analysis presented in Table 8 was repeated for each public sector health care program area individually. The results are presented in Table 9.

As shown in Table 9, GPOs saved individual public sector health care programs significant amounts of money in CY 2008. For example, all public sector health care programs saved between $16.3/$18.2 billion and $32.2/$36.0 billion. The federal government saved between $12.9/$14.4 billion and $25.6/$28.5 billion. Savings to state and local governments are estimated to have been totaled between $3.4/$3.8 billion and $6.7/$7.4 billion. Medicare realized savings of between $8.0/$8.9 and $15.8/$17.7 billion in CY 2008. Medicaid saved between $5.7/$6.3 billion and $11.2/$12.5 billion. Other public sector health care programs also realized significant savings.

Finally, the CY 2008 GPO-related savings data presented in Table 9 were projected forward over five-year (CY 2008-CY 2012) and ten-year (CY 2008-CY 2017) scoring windows using an annual inflation factor of 5.7 percent. The inflation factor consists of two components: the CY 2008 consumer price index for medical care (3.7%) and a population growth factor (2.0 %). The results are presented in Tables 10 and 11.

Five-year projections indicate that GPOs will save the health care system and individual public sector health care programs considerable amounts of money. For the entire health care system, the five-year savings projections range between $164.2 billion and $361.4 billion. The public sector of the health care system would save between $91.3 billion and $201.7 billion. Savings to the federal government would be between $72.3 billion and $160.0 billion.

State and local governments would save between $19.1 billion and $41.5 billion in health care expenditures. Significant five-year savings would also accrue to the Medicare program ($44.8 billion to $99.2 billion) and to Medicaid ($31.9 billion to $70.0 billion). Other public sector health care programs including the Department of Veterans Affairs and the Department of Defense would also experience important savings over the five-year period.

Likewise, when projected over a ten-year period (CY 2008-CY 2017), GPO-related savings would be significant. Savings to the total health care system would total between $380.8 billion and $838.3 billion. All public health care programs would save between $211.8 and $467.9 billion. The federal government would realize savings of $167.7 billion and $370.4 billion. Savings to state and local governments would total $44.2 billion to $96.2 billion.

The Medicare program would realize savings of between $104.0 and $230.0 billion. Medicaid would save between $74.1 billion and $162.5 billion. Savings would also be realized by the Department of Veterans Affairs, the Department of Defense, and other public sector health care programs.

Table 9
GPO Savings by Program: CY 2008
(Amount in $ Billions)

Program Area	GPO Penetration @ 71.71%			GPO Penetration @ 80%		
	Savings @ 10%	Savings @ 15 %	Savings @ 18 %	Savings @ 10%	Savings @ 15 %	Savings @ 18 %
Health Services and Supplies: Total Public and Private Spending	$29.3	$46.5	$57.8	$32.6	$51.8	$64.5
All Public Programs	$16.3	$25.9	$32.2	$18.2	$28.9	$36.0
Federal Funds	$12.9	$20.6	$25.6	$14.4	$22.9	$28.5
State and Local Funds[1]	$3.4	$5.4	$6.7	$3.8	$6.0	$7.4
Medicare	$8.0	$12.7	$15.8	$8.9	$14.2	$17.7
Medicaid[2]	$5.7	$9.0	$11.2	$6.3	$10.0	$12.5
Federal	$3.2	$5.1	$6.3	$3.6	$5.7	$7.1
State and Local	$2.5	$3.9	$4.9	$2.7	$4.4	$5.4
Other State and Local Public Assistance Programs	$0.1	$0.1	$0.2	$0.1	$0.1	$0.2
Department of Veterans Affairs	$0.9	$1.4	$1.8	$1.0	$1.6	$2.0
Department of Defense[3]	$0.6	$1.0	$1.2	$0.7	$1.1	$1.3
Workers' Compensation	$0.2	$0.4	$0.5	$0.3	$0.4	$0.5
Federal	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
State and Local	$0.2	$0.4	$0.4	$0.3	$0.4	$0.5
State and Local Hospitals[4]	$0.6	$0.9	$1.2	$0.7	$1.1	$1.3
Other Public Programs for Personal Health Care[5]	$0.2	$0.4	$0.4	$0.2	$0.4	$0.5
Federal	$0.2	$0.3	$0.3	$0.2	$0.3	$0.4
State and Local	$0.0	$0.1	$0.1	$0.0	$0.1	$0.1

[1]Includes Medicaid SCHIP Expansion and SCHIP
[2]Subset of Federal and state and local funds. Includes Medicaid SCHIP Expansion.
[3]Includes care for retirees and military dependents.
[4]Category includes state and local subsidies to hospitals and home health agencies, as well as school health programs.
[5]Includes program spending for maternal and child health; vocational rehabilitation medical payments; temporary disability insurance medical payments; Public Health Service and other Federal hospitals; Indian health services; alcoholism, drug abuse, and mental health.

Note: Numbers may not add to total because of rounding.

Source: Locus Systems analysis of CMS National Health Expenditures Accounts for CY 2006 and Projections for CY 2008-CY 2018.

Table 10
5-Year GPO Savings by Program: CY 2008-CY 2012
(Amount in $ Billions)

Program Area	GPO Penetration @ 71.71%			GPO Penetration @ 80%		
	Savings @ 10%	Savings @ 15 %	Savings @ 18 %	Savings @ 10%	Savings @ 15 %	Savings @ 18 %
Health Services and Supplies: Total Public and Private Spending	$164.2	$260.6	$323.9	$182.7	$290.3	$361.4
All Public Programs	$91.3	$145.1	$180.4	$102.0	$161.9	$201.7
Federal Funds	$72.3	$115.4	$143.4	$80.7	$128.3	$160.0
State and Local Funds[1]	$19.1	$30.3	$37.5	$21.3	$33.6	$41.5
Medicare	$44.8	$71.2	$88.5	$49.9	$79.6	$99.2
Medicaid[2]	$31.9	$50.4	$62.8	$35.3	$56.0	$70.0
Federal	$17.9	$28.6	$35.3	$20.2	$31.9	$39.8
State and Local	$14.0	$21.9	$27.5	$15.1	$24.5	$30.3
Other State and Local Public Assistance Programs	$0.6	$0.6	$1.1	$0.6	$0.6	$1.1
Department of Veterans Affairs	$5.0	$7.8	$10.1	$5.6	$9.0	$11.2
Department of Defense[3]	$3.4	$5.6	$6.7	$3.9	$6.2	$7.3
Workers' Compensation	$1.1	$2.2	$2.8	$1.7	$2.2	$2.8
Federal	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
State and Local	$1.1	$2.2	$2.8	$1.7	$2.2	$2.8
State and Local Hospitals[4]	$3.4	$5.0	$6.7	$3.9	$6.2	$7.3
Other Public Programs for Personal Health Care[5]	$1.1	$2.2	$2.2	$1.1	$1.8	$2.3
Federal	$1.1	$1.7	$2.2	$1.1	$1.7	$2.2
State and Local	$0.0	$0.3	$0.1	$0.0	$0.1	$0.1

[1]Includes Medicaid SCHIP Expansion and SCHIP
[2]Subset of Federal and state and local funds. Includes Medicaid SCHIP Expansion.
[3]Includes care for retirees and military dependents.
[4]Category includes state and local subsidies to hospitals and home health agencies, as well as school health programs.
[5]Includes program spending for maternal and child health; vocational rehabilitation medical payments; temporary disability insurance medical payments; Public Health Service and other Federal hospitals; Indian health services; alcoholism, drug abuse, and mental health.

Note: Numbers may not add to total because of rounding.

Table 11
10-Year GPO Savings by Program: CY 2008-CY 2017
(Amount in $ Billions)

Program Area	GPO Penetration @ 71.71%			GPO Penetration @ 80%		
	Savings @ 10%	Savings @ 15 %	Savings @ 18 %	Savings @ 10%	Savings @ 15 %	Savings @ 18 %
Health Services and Supplies: Total Public and Private Spending	$380.8	$604.3	$751.2	$423.7	$673.2	$838.3
All Public Programs	$211.8	$336.6	$418.5	$236.5	$375.6	$467.9
Federal Funds	$167.7	$267.7	$332.7	$187.2	$297.6	$370.4
State and Local Funds[1]	$44.2	$70.2	$87.0	$49.4	$78.0	$96.2
Medicare	$104.0	$165.1	$205.3	$115.7	$184.6	$230.0
Medicaid[2]	$74.1	$117.0	$145.6	$81.9	$130.0	$162.5
Federal	$41.6	$66.3	$81.9	$46.8	$74.1	$92.3
State and Local	$32.6	$50.7	$63.7	$35.1	$57.1	$70.2
Other State and Local Public Assistance Programs	$1.3	$1.3	$2.6	$1.3	$1.3	$2.6
Department of Veterans Affairs	$11.7	$18.2	$23.4	$13.0	$20.8	$26.0
Department of Defense[3]	$7.8	$13.0	$15.6	$9.1	$14.3	$16.9
Workers' Compensation	$2.6	$5.2	$6.5	$3.9	$5.2	$6.5
Federal	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
State and Local	$2.6	$5.2	$6.5	$3.9	$5.2	$6.5
State and Local Hospitals[4]	$7.8	$11.7	$15.6	$9.1	$14.3	$16.9
Other Public Programs for Personal Health Care[5]	$2.6	$5.2	$5.2	$2.6	$5.2	$6.5
Federal	$2.6	$3.9	$3.9	$2.6	$3.9	$5.2
State and Local	$0.0	$1.2	$1.3	$0.0	$1.3	$1.3

[1]Includes Medicaid SCHIP Expansion and SCHIP
[2]Subset of Federal and state and local funds. Includes Medicaid SCHIP Expansion.
[3]Includes care for retirees and military dependents.
[4]Category includes state and local subsidies to hospitals and home health agencies, as well as school health programs.
[5]Includes program spending for maternal and child health; vocational rehabilitation medical payments; temporary disability insurance medical payments; Public Health Service and other Federal hospitals; Indian health services; alcoholism, drug abuse, and mental health.

Note: Numbers may not add to total because of rounding.

FINDINGS

GPOs play an important role and make significant contributions to the U.S. health care system. They bring efficiency to sales and supply chains resulting in cost savings and value added to their members. In CY 2008, it is estimated that the size of the total GPO marketplace was between $332.9 billion and $367.3 billion.

Through their ability to command market share and to negotiate volume discounts, GPOs save their members and customers between 10 percent and 18 percent on their purchases. **For CY 2008, this amounted to estimated savings of between $29.3 billion and $64.5 billion of direct savings.** By channeling their expenditures through GPOs, public sector health care programs also saved considerable amounts of money. As shown in Tables 9, 10, and 11 and discussed above, the CY 2008 savings estimates and five-year and ten-year projections are significant. In addition, by streamlining business processes, GPOs introduce important efficiencies to the health care marketplace which, although indirect and difficult to quantify, produce additional savings to providers, patients, and the entire system.