Hospital Supply Chain Executives' Perspectives on Group Purchasing:

Results from a 2014 National Survey

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Executive Summary

During the summer of 2014, Wharton School researchers conducted a national survey of hospital executives with responsibility for supply chain management. The survey, sponsored by the American Hospital Association (AHA) and its Association for Healthcare Resource & Materials Management (AHRMM), asked these executives to evaluate their national group purchasing organizations (GPOs) on a series of performance and utilization measures. A total of 1,210 executives participated in the survey - - the largest number of respondents to any such survey. The survey achieved a response rate of at roughly 16%.

The vast majority of hospitals (90%) utilize national GPOs. The majority use only one national GPO, but a sizeable percentage use two. Hospitals have remained loyal to their national GPOs, with an average tenure of eleven years as members. They route the majority of their product purchases (56%) through their primary national GPO, and an additional 19% of purchases through regional and local GPOs. The remaining purchases go through self-negotiated contracts or off-contract purchases. Nevertheless, executives believe their national GPO plays the most important role in GPO contracting (compared to regional and local GPOs) and believe the impact of the national GPO is growing. This growing role is particularly evident in the hospital's utilization of GPO contracts for physician preference items. Hospitals route the vast majority of commodity, pharmaceutical, and dietary purchases through their national GPO, as well as a near majority of capital purchases.

In terms of performance, the national GPO succeeds most in obtaining price discounts and achieving savings via lower product prices. Such savings come about through lowest market pricing, contract standardization, and provision of the market pricing point. They

also contribute to savings via rebated administrative fees and information technology. GPOs also perform well in terms of sole source contracts for physician preference items, multi-source contracts (for both commodity and physician preference items), clinical expert and data support for value analysis, clinical improvement initiatives, data analytics, and benchmarking. The majority of hospitals report utilizing single-vendor and multi-vendor contracts for bundles of products.

Hospital purchasing decisions are driven by clinical rather than financial considerations. Purchasing decisions are strongly dictated by product availability, value of the product contract, and access to suppliers. These decisions are not dictated by contract administration fees that get rebated back to the hospital or the hospital's ownership interest in a GPO.

Finally, when compared to similar national survey data collected by Wharton School researchers in 2005, these new data suggest a strong and continuing role played by the national GPOs in hospital supply chain management. This role continues to focus heavily on improving hospital efforts to procure products at lower prices and produce cost savings. It has also recently expanded to help hospitals with services beyond supply chain management that include clinical improvement and value analysis activities.

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Overview of Study

During July and August 2014, researchers at the Wharton School conducted a national survey of hospital executives with responsibility for purchasing and supply chain management in their institutions. The survey asked the hospital executives to assess the role of their national group purchasing organizations (GPOs) in supply chain management, as well as their utilization of GPOs for several product categories. The American Hospital Association (AHA) and the Association for Healthcare Resource & Materials Management (AHRMM) sponsored the study.

Study Survey

Wharton School researchers developed the survey in collaboration with executives from AHRMM. Several members of AHRMM's Board formed a task force to provide additional input to the survey design; GPO executives played no role in the design of the survey. The survey utilized many questionnaire items previously included in a 2005 national study also conducted by the Wharton School.[1] By doing so, research can analyze the trajectory in hospital assessment and utilization of their national GPOs. The 2014 survey added some additional items not included in the 2005 survey, and conversely dropped some items found in the earlier survey.

Study Sample and Recruitment

The samples for the 2005 and 2014 surveys are comparable. In both years, Wharton School researchers asked the leaders of AHRMM and the largest national GPOs to supply their hospital membership rosters, including the names of the hospital contacts with

[1] Lawton Burns and Andrew Lee. "Hospital Purchasing Alliances: Utilization, Services, and Performance," *Health Care Management Review* 33(3): 203-215 (2008).

responsibility for supply chain and purchasing. All seven national GPOs (Amerinet, Broadlane, Consorta, HealthTrust, MedAssets, Novation, Premier) cooperated in the 2005 study and provided their rosters; since that time, these seven GPOs have consolidated into five. For the 2014 study, four of the five national GPOs cooperated (all but HealthTrust); nevertheless, follow-up emails from the AHA encouraged many hospital members of HealthTrust to participate in the survey. There is actually slightly higher HealthTrust participation in the 2014 survey than in the 2005 survey. Thus, for both years, we have similar representation from all of the major GPOs, allowing us to examine trends over time.

GPO hospital members received an email from the Wharton School researchers to encourage them to participate in an online survey. The survey was open for two months. Wharton School researchers sent two follow-up emails to encourage hospital members to complete the survey. We received responses from 1,210 hospital executives. We have encountered some delays in calculating the precise response rate to the survey, due to inaccuracies in some of the email listings supplied by the GPOs (e.g., email address errors, retirement by the supply chain executive), the travel/vacation schedules of some executives that precluded them from participating, and the prevalence of duplicate email listings across the rosters of different GPOs (reflecting multiple GPO memberships). As best we can determine, the survey was administered to 7,612 different individuals. Given responses from 1,210, the rough response rate at present is 15.9%. This response rate will likely be revised upwards to take account of the wrong and inactive email addresses. Due to missing values on several questions, we have a useable sample of 1,145 respondents.

Our respondents are scattered across the five national GPOs as follows:

- Amerinet 6%
- HealthTrust 12%
- MedAssets 13%
- Novation 32%
- Premier 31%

- Other 6%
- Total 100%

Alliance Use at National, Regional, and Local Levels

The vast majority (90%) of respondents reported using national GPOs. Sixty percent of hospitals using national GPOs utilize only one national GPO, while forty percent report using two. This is nearly the same level of utilization reported in the 2005 study (58.7%). Tenure with the national GPO has lengthened over time. The average tenure a hospital has been with its primary national GPO in 2014 is 11.2 years, compared with 8.9 years of tenure reported in 2005. Whereas the 2005 study asked only about national GPOs, the 2014 study asked about use of regional and local GPOs as well. Respondents report having belonged to their regional GPO for an average of 9.4 years, and their local GPO for an average of 9.3 years.

Hospitals route different percentages of their product purchases through these three different purchasing alliances. Hospitals report they route 55.9% of purchases through their national GPO contracts, 11.1% through regional GPO contracts, and 7.9% through local GPO contracts. The remainder of their purchases is conducted via self-negotiated contracts (21.1%) and off-contract buys (11.0%). In 2005, hospitals reported routing 70.6% of purchases through national alliances; this figure has fallen by 2014 likely due to self-contracting.

Nevertheless, when asked to rank-order the role played by these three different types of GPOs to improve the healthcare supply chain, respondents overwhelmingly (75%) ranked their national GPOs as having the greatest impact, while regional and local alliances play secondary roles (20% and 18% high rankings, respectively). Moreover, not only do the national GPOs play a major role but also that role is growing. Two-thirds of respondents strongly agreed or agreed that their national GPOs' role and impact has grown over the past five years. By contrast, fewer respondents feel the same about the role and impact of

their regional GPOs (53%) and local GPOs (36%). Fewer than half of the respondents strongly agreed or agreed that the regional GPOs and local GPOs exerted a major impact on their national GPOs.

Evaluation of National GPO: Savings

The remainder of the survey asked respondents to evaluate the performance of their primary national GPO. Of particular importance is the GPO's contribution to cost savings. Below we indicate the percentage of respondents strongly agreeing or agreeing with various cost-savings roles played by their GPO:

- Savings from lower prices 88%
- Demonstrable cost-savings and improvement 86%
- Savings from contract standardization 84%
- Savings from providing the market price point 73%
- Savings from administrative fees rebated to hospital 67%
- Savings from information technology 64%
- Savings from economies of centralized staffing 57%
- Savings from shareholder dividends 39%

The overwhelming majority of respondents (90%) were satisfied or very satisfied with the national GPO. Overall, on a five-point scale[2], the mean satisfaction score was 4.01. This is nearly identical with the score reported in 2005 (4.06).

[2] The survey used a five-point Likert scale: 5=strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, 1=strongly disagree.

Evaluation of National GPO: Services

The survey asked respondents to rate their level of satisfaction with their national GPO on different services and functions. The percentage of respondents who are strongly satisfied or satisfied is given below:

- Group purchasing and price discounts 84%
- Multi-source contracts for commodity items 73%
- Multi-source contracts for preference items 66%
- Lowest price in GPO contracts 62%
- Clinical expert & data support for value analysis 61%
- Clinical improvement initiatives 58%
- Benchmark with peer hospitals and hospital systems 58%
- Direct input on product & service selection 57%
- True strategic partnership with hospital 57%
- Predictive analytics to make better decisions around cost, quality and outcomes 54%
- Bring innovative products to our attention 53%
- Consulting services 52%
- Member's control and input on alliance direction 48%
- Safety improvement initiatives 48%

On a five-point scale[3], the mean satisfaction score for these services and functions closely resembled the scores reported in 2005. For example, in both years, the mean satisfaction score for "group purchasing and price discounts" remained steady at 4.10; the mean satisfaction score for "strategic partnership with hospital" rose slightly from 3.51 to 3.57; the mean satisfaction score for "lowest price in GPO contracts fell slightly from 3.72 to 3.65. The sharpest increases were reported for satisfaction with "clinical expert and data

[3] The survey used a five-point Likert scale: 5=strongly satisfied, 4=satisfied, 3=neither satisfied nor dissatisfied, 2=dissatisfied, 1=strongly dissatisfied.

support for value analysis" (from 3.46 to 3.67), "clinical improvement initiatives" (from 3.43 to 3.64), "direct input on product and service selection" (from 3.45 to 3.60), and "consulting services" (from 3.46 to 3.56). The biggest decreases were observed for satisfaction with "multisource contracts for preference items" (from 3.86 to 3.70) and "bring innovative products to our attention" (from 3.64 to 3.48). Nevertheless, respondents still report fairly high satisfaction on both of the latter items.

Evaluation of National GPO: Physician Preference Items

The survey also asked respondents to indicate their level of agreement with their national GPO's performance in contracting for physician preference items (PPIs). Below we indicate the percentage of respondents strongly agreeing or agreeing with various dimensions of their national GPO's contracting for PPIs:

- GPO committed contracts for multi-vendor multi-product portfolios are valuable — 66%
- GPO gets excellent prices through standardization and compliance to sole-source contracts — 57%
- GPO gets excellent prices through standardization and compliance to dual-source contracts — 56%
- GPO committed contracts for single-vendor multi-product portfolios are valuable — 55%
- My hospital/system can get better prices for PPIs than those obtained through the GPO contract — 55%
- GPO has not blocked access to innovative medical devices & manufacturers — 54%
- GPO gets excellent prices overall — 52%

On a five-point scale[4], the mean scores reported for these items resemble the means reported in 2005. The one noticeable increase was "GPO gets excellent prices through sole-source contracts" (rising from 3.38 to 3.49), while the only noticeable decline was "GPO gets excellent prices overall" (falling from 3.47 to 3.34).

[4] The survey used a five-point Likert scale: 5=strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, 1=strongly disagree.

Participation in Contracts for Related Product Bundles

Responses to some of the items above suggest hospitals derive value from single-vendor and multi-vendor contracts for related product bundles. Respondents were asked to indicate (a) if their national GPO offered such contracts to achieve best pricing, and (b) how frequently they participated in such contracts. The vast majority of hospitals indicated their GPO offers single-vendor multi-product contracts (79%) and multi-vendor multi-product contracts (74%). With regard to participation in such contracts, the majority of respondents (55%) stated they sometimes participate, with another 23-27% indicating they nearly always participate.

Purchases Mediated by Primary National GPO: By Category

The survey asked respondents to indicate the percentage of their product purchases mediated by the primary national GPO, by product category. The categories included in the 2014 survey included: commodities, capital items, PPIs, purchased services, brand drugs, generic drugs, dietary, and information technology. The percentage of respondents indicating their national GPO mediated 50% or more of these purchases are given below:

- Commodity items 86%
- Generic pharmaceuticals 77%
- Brand pharmaceuticals 75%
- Dietary 60%
- Capital items 45%
- Physician preference items 39%
- Information technology 28%
- Purchased services 25%

Compared to the 2005 survey findings, these percentages show an increased reliance on the national GPO to procure PPIs (from 30% to 39%), and a continued reliance on the national GPO to procure commodities, pharmaceuticals, capital items, and purchased services. The 2005 survey did not measure information technology and dietary items. The

lower levels of GPO penetration for capital items, PPIs, information technology, and purchased services suggest areas of future growth for GPO contracting.

Value Derived from Other GPO Services

The survey asked respondents to indicate the value derived from five newer generation services rendered by their national GPO. These are services that were not as prevalent in 2005 and not included in the earlier survey. The percentage of respondents indicating they strongly agreed or agreed that their hospital derived value from the GPO for these five services are:

- Benchmark data 58%
- Data analytics 51%
- Purchased services 38%
- Clinical outcomes data 38%
- Revenue cycle 25%

Relative Influences on Hospital Buying Decisions

The last set of questions asked respondents to rank in importance the following factors that might influence their buying decisions[5]. These factors include administrative fees, a stake in the GPO's ownership, the value of the product contracts, access to suppliers, availability of stock during routine operations, proximity of stock to their hospital, and availability of stock during emergencies. The mean ranking for each of the seven items is given below:

- Availability of stock during routine operations 6.93
- The value of the product contract(s) 6.84
- Access to suppliers 6.23
- Availability of stock during emergencies 6.13

[5] Respondents ranked the seven items on a scale from 1 (least important) to 7 (most important).

- Proximity of stock to your organization 5.31
- Administrative fees distributed by the GPO 4.50
- Ownership interest in a GPO 3.70

These rankings indicate that the adequacy of clinical supply trumps financial considerations in product buying decisions.

Other Issues

Finally, the survey queried respondents about other specific issues that have gained notoriety in past years.[6] First, they indicated that gag clauses inserted into contracts with manufacturers of PPIs have exerted a negative effect on the hospital's efforts to align with physicians on product pricing (mean = 3.20 out of 5). Second, they were evenly split on whether multiple tier contracts created confusion for hospital purchasing (mean = 3.03).

Discussion

Peter Drucker, the late management expert, frequently mentioned to companies the importance of customer focus and customer service. For group purchasing organizations, their chief customer is the hospital. There is a consensus among U.S. hospital executives surveyed in this study that they are being served by their GPOs.

This conclusion is based on the benefits that hospitals derive from their national GPOs in terms of both lower prices and cost savings. This conclusion is also based on the satisfaction hospitals express with many GPO functions and services, their continued membership in and use of GPOs for product purchases, and their growing reliance on GPOs for purchasing expensive physician preference items. Finally, this conclusion flows directly from the sustained, continued benefits reported by hospitals in the past decade and during the present decade.

[6] These four survey items used a five-point Likert scale: 5=strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, 1=strongly disagree.