

Pharmaceutical Medical Information Contact Centers: Results of Three Benchmarking Surveys

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Pharmaceutical medical information contact centers are often a key interface among a company, the medical community, and the general public. Results from three benchmarking surveys are reviewed. The surveys were designed to provide contact center leaders with unbiased and relevant information for use in assessing operations and setting strategic direction. The surveys were similar in focus and conducted at three time points (2004, 2005, and 2008). The surveys focused on the organizational structure and operations, sourcing options, technology, and globalization. These findings provide not only a snapshot of current contact centers, but also a view over time of the progression of changes to organizational and operational processes of medical infor-

mation contact centers. The trends and challenges faced by pharmaceutical medical information contact centers included (a) increasing efficiency and productivity of the process to handle increased call volumes to meet customer expectations; (b) creating or maintaining a validated environment for business processes and systems to improve service, efficiency, and compliance; (c) utilizing outsourcing options, including offshore or international contact centers, to help maintain costs and obtain flexibility; and last (d) continuing to add and show value to the overall organization. This information is presented as a resource as contact centers develop and refine strategies for managing in today's challenging environment.

Key Words

Contact center; Medical
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Benchmark

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INTRODUCTION

A pharmaceutical medical information contact center is defined as having the primary responsibility of providing medical information to health care professionals, patients, and caregivers through various communication channels (eg, phone, Internet website, email, mail, and fax). Pharmaceutical medical information contact centers typically have three core activities; these include disseminating information (ie, approved product labeling as well as off-label information upon request from health care professionals), managing caller inquiry volume (especially during increased awareness of product availability or media coverage), and collecting information (typically for adverse events or product complaints).

Pharmaceutical medical information contact centers are often a key interface among a company, the medical community, and the general public. These contact centers typically address hundreds of inquiries that are received by phone, email, fax, and mail on a daily basis. Re-

gardless of the size of a pharmaceutical contact center, similar issues and challenges are faced by these groups.

As the volume of product information increases, the customer's need to have greater access to better understand medical information will increase. Health care professionals and customers are increasingly turning to pharmaceutical companies for help to educate themselves and their patients (1,2). With growing numbers of inquiries, pharmaceutical contact centers are challenged to increase efficiency and improve customers' experiences. Additionally, these centers must ensure compliance with regulatory requirements.

Hopkins et al. (3) conducted a benchmarking survey regarding the roles and processes of medical information groups within the pharmaceutical industry in 1999. The Hopkins survey provides a historical point of reference to identify changes. We describe the results of three benchmarking surveys conducted in 2004, 2005, and 2008. The surveys were designed to provide medical information contact center

TABLE 1

Summary of Participants			
	Survey Year		
	2004	2005	2008
Number of participants	15	12	16
Number in top 20	8	10	13
Number participating in three surveys: 5. Number participating in two surveys: 8. Rankings are based on company-reported sales taken from SEC filings and annual reports.			

managers with unbiased and relevant information for use in assessing operations and setting strategic direction.

METHODS

The target companies for the surveys were US medical information contact centers handling calls from health care professionals and consumers, and fulfilling some aspect of adverse event and product quality complaint reports.

Each year *Pharmaceutical Executive* compiles a list of the world's top 50 pharmaceutical companies. Rankings are based on companies' reported sales taken from SEC filings and annual reports (4–6). The top 20 pharma companies with US offices listed in the *Pharmaceutical Executive* Annual Report of the World's Top 50 Pharma Companies were asked to participate in addition to others identified via available lists and author contacts.

The surveys focused on the following areas:

- Organizational design: structure, staffing, and services
- Operations: hours, metrics, and quality assurance
- Outsourcing and insourcing
- Technology
- Globalization

Contact center directors or managers were invited to participate in a 30-minute phone interview (2004, 2005, and 2008) or to complete an online questionnaire (2008 survey only). Interviews were conducted from September to November 2004 (survey 1), August to September 2005 (survey 2), and December 2008 to January 2009 (survey 3).

RESULTS

A total of 15 companies participated in 2004, 12 in 2005, and 16 in 2008. A subset of results from survey 1 has been published (7). Additional results from survey 1 will be described in aggregate for comparison purposes across the three surveys.

SURVEY PARTICIPANT COMPANY OVERVIEW

Table 1 provides a summary of survey participants. Five companies included in the *Pharmaceutical Executive* Annual Report of the World's Top 50 Pharma Companies participated in all three surveys. Eight companies participated in two surveys, with seven included in the Top 50 list.

In 2004, 8 of 15 survey participants were identified as top 20 pharmaceutical companies. In 2005, 10 of 12 survey participants were included in the report, with 7 companies identified in the top 10 pharmaceutical companies. In 2008, 13 of 16 survey participants were listed; all were identified in the top 50 pharmaceutical companies listed.

ORGANIZATIONAL DESIGN

Reporting Structure. The majority of medical information contact centers reported into the medical affairs organization. This did not appear to change over time. Table 2 summarizes the findings of the three surveys.

Staffing. The majority of contact centers employed health care professionals (pharmacists, nurses, and physicians). In 2004, all respondents noted having both pharmacists and nurses staffing the contact center; in 2005, 83% noted the use of both pharmacists and nurses. In 2008, 100% reported the use of pharmacists, 81% used nurses, and 6.3% had physicians on staff also. Reasons cited for using a health care professional staffing model included: the calls are best handled by medical professionals; medical professionals are required by company policy; medical professionals are required by regulation; and product labeling specifies that a medical professional is available. Table 3 pro-

Reporting Structure of Medical Information Contact Center Within the Company

TABLE 2

	Ref. 3 (n = 24) (%)	Survey 1, 2004 (n = 15) (%)	Survey 2, 2005 (n = 12) (%)	Survey 3, 2008* (n = 16) (%)
Medical affairs	75	46	67	62.5
Commercial/marketing	21	54	33	18.8
Other	4			12.5

*A majority of the contact centers (62.5%) reported to medical affairs. Three contact centers (18.8%) reported to commercial/marketing. One center reported to both medical affairs and marketing as a shared service. Two participants (12.5%) reported to other organizations within their companies.

vides additional details regarding reasons for using health care professionals. All respondents (100%) reported the required use of health care professionals to collect adverse events. In 2008, a few respondents noted the use of non-health care professionals to address on-label questions.

Additional information was collected regarding length of time for training new staff members in three areas (product information, systems, and customer service) from survey 2. The average length of new hire training was 4.5 weeks. One center was an outlier with classroom and on-phone training of 4 months. Most noted that agents are trained on the phone gradually by working with other experienced representatives. Systems training ranged from a low of 1 day up to 1 week. Customer service was either not part of new agent training or ranged from 1 day up to 1 week.

Services. In addition to providing medical information, pharmaceutical contact centers provide services for other internal customers, summarized in Figure 1. The majority of contact centers collect adverse events and product complaints. Other services or collaborations included support of clinical trial recruitment, sales groups, marketing teams, and initiatives. A few also support patient assistance programs.

Surveys 1 and 2 identified two process categories for contact centers to handle adverse event data. These categories were based on the level of activity and were identified as Recognize and Transfer and Recognize, Collect, Input,

Reasons Cited for Using Health Care Professional Staff in the Contact Center From Survey 3 (n = 16)

TABLE 3

Calls are best handled by health care professionals	93.8%
Health care professionals are required by company policy	50%
Health care professionals are required by regulation	18.8%
Product labeling specifies that a health care professional is available	12.5%

and Transfer (7). The latter category represented a higher degree of involvement by the medical information contact center in the collection and processing of initial adverse event data. A contact center using the Recognize, Collect, Input, and Transfer process would generally collect all of the caller's information regarding the regulatory event and input the event into either a paper or electronic system before sending the data to another organization for the next level of investigation. Figure 2 provides a summary of processes for collecting adverse event data. Refer to Figure 1 for additional information on product complaint collection. There are incomplete data from survey 2 regarding product quality complaint processing; only two groups provided responses to this question. In 2004, 5 of 15 (33%) companies participated in product quality complaint collection while 12 of 16 (75%) respondents reported collecting product quality complaint data in 2008.

FIGURE 1

Summary of services.

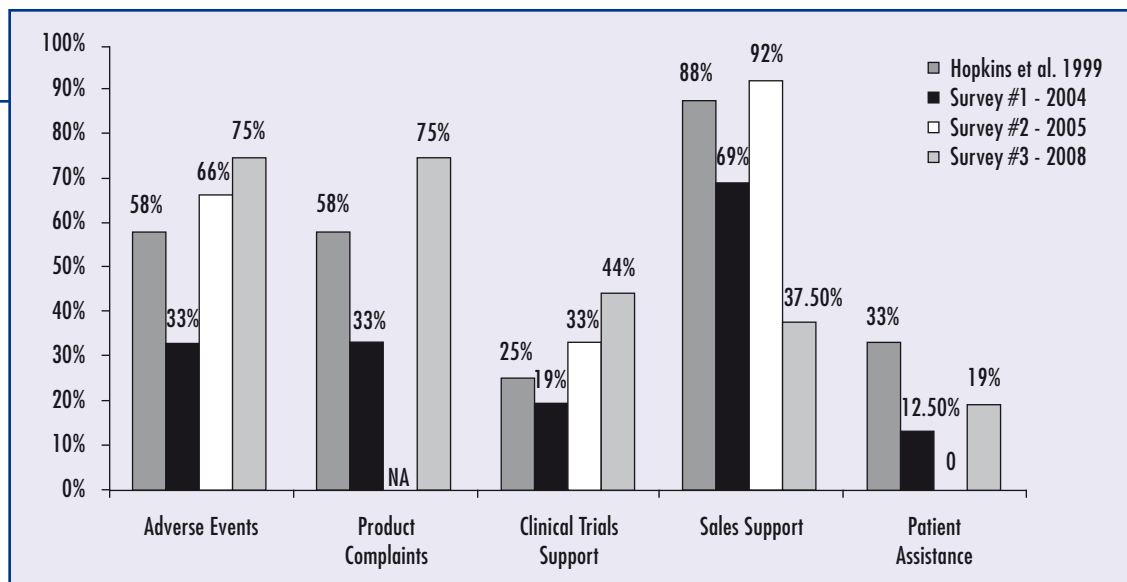
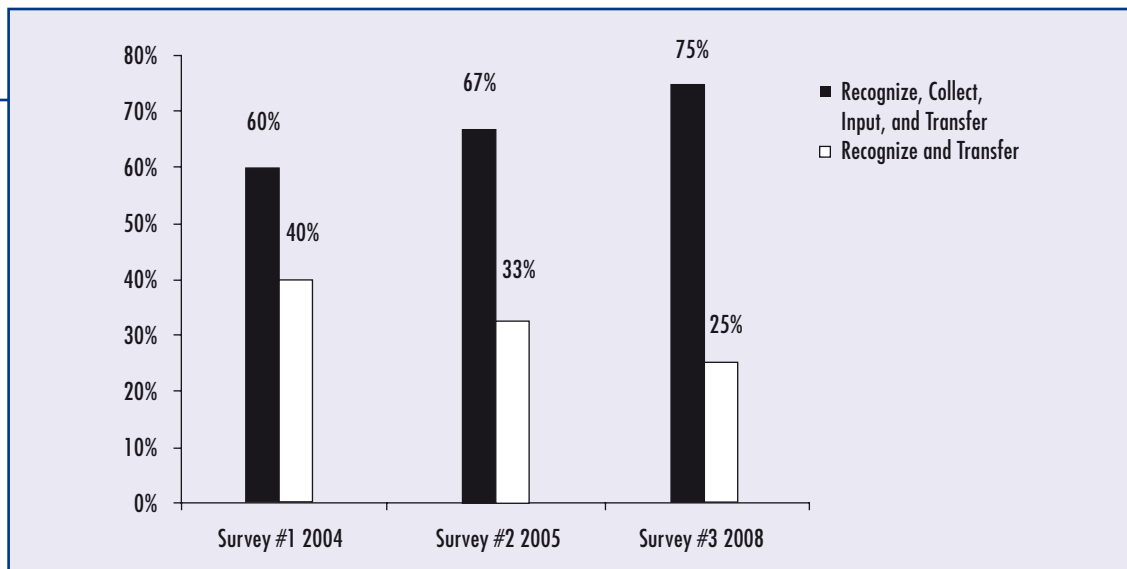


FIGURE 2

Summary of survey respondents on process used to collect adverse event data.



OPERATIONS

Hours of Operation. The survey participants were located throughout the United States. The majority of contact centers were open during standard business hours, with the most common hours of 8 am–5 pm or 8 am–8 pm Eastern time. In 2004, 40% of contact centers were available for 12 hours with 47% remaining open during normal business hours. Two contact centers reported extended hours (>12 hours but <24 hours); two centers also reported 24/7 availability via live agent or interactive voice response. A large number of contact centers

(80%) offered after-hours access to a live agent via a pager or outsource contact center. In 2005, 67% of participants were open during the standard business hours for their time zone. The open times were most often around 8 am to 5 pm weekdays. Four centers were open for extended hours with full service for 12 hours Monday through Friday. Seven of the 12 (58%) centers handled after-hours calls using on-call agents or members of the medical information staff. The remaining 5 (42%) centers used an outsource contact center for handling after-hours calls. In 2008, 43.8% were available dur-

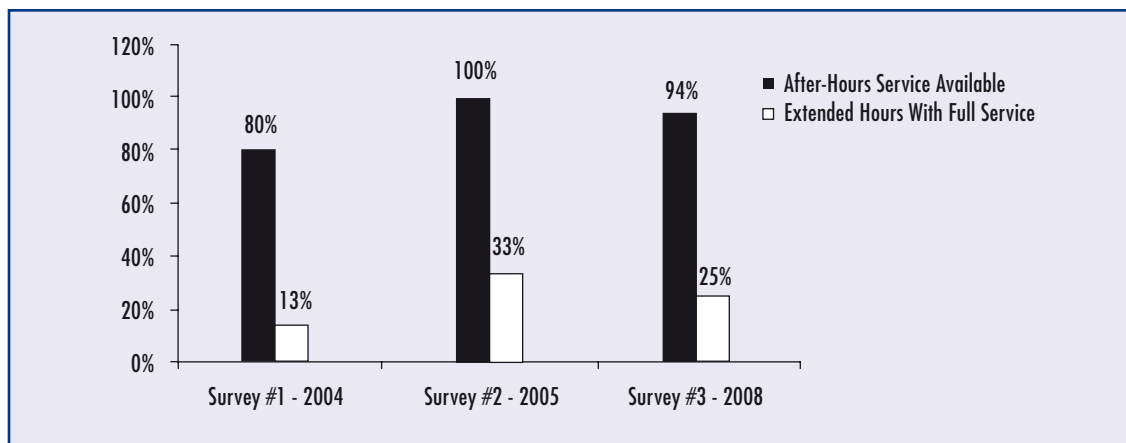


FIGURE 3

After-hours coverage.

ing business hours; 25% reported extended hours with full service for 12 hours. In addition, 94% offered after-hours access to an agent with 38% instructing callers to call 911 for emergencies in addition to offering the option to reach an on-call representative. Only one company offered voice mail only, with no access to an agent. A shift toward greater accessibility appears to have occurred over time. Companies appear to be more accessible with longer hours and offering after-hours services in 2008 compared with 2004 (see Figure 3).

Metrics. Common operational measurements for customer contact centers include setting service level goals and abandonment rates. Service level goals refer to the percentage of calls that a contact center attempts to answer within a targeted amount of time. Service levels are set as operational goals and are monitored to evaluate operational performance. Abandonment rates include the number of callers exiting the call queue prior to speaking with an agent. Abandonment rate is a function of factors including caller interest, service level, product or service characteristics, and others.

These metrics have not always been measured in pharmaceutical contact centers for a number of reasons, including the medical nature of calls, which requires medical professionals to decide how long to stay on a call, and the underlying desire to ensure customer satisfaction, which is not measured via service level goals. Metrics were not addressed in survey 1 in 2004.

However, in 2005, 42% of contact centers used service levels as an operational measurement. Service levels most often used were 80/20 or 80% of calls answered in 20 seconds with a 5% abandonment rate. One center set a 70/30 service level and a 5% abandonment rate while another reported a 90/10 service level goal with a 5% abandonment rate. In 2008, 75% of survey participants reported the use of service levels with a majority setting the goal of 80/20. Other reported service level goals included 90/10 ($n = 2$), 80/30 ($n = 2$), 70/30 ($n = 2$), 90/20 ($n = 1$), and 90/30 ($n = 1$). Four companies (25%) targeted an abandonment rate of less than 3%. Seven (46.7%) contact centers reported target abandonment rates of 3–5%. One company reported a targeted abandonment rate of 7%. A greater number of companies are attempting to gather metrics that may improve operational efficiencies and improve customer service over time.

Quality Assurance. Medical information contact center agents are responsible for handling medical information requests and oftentimes adverse events and product quality or technical complaints. Agents must have an understanding of extensive amounts of medical and product data and be aware of processes for handling customer inquiries, concerns, and adverse event and product complaint reports. Quality assurance processes, including call monitoring by supervisors and training personnel, are often used to coach experienced associates on areas of pro-

efficiency and development. Quality assurance programs include formal, documented call monitoring, peer-to-peer call monitoring, and conducting self-audits or mock audits.

Results from survey 2 noted 25% of the companies using peer-to-peer monitoring. Additionally, the number of team members performing quality monitoring ranged from no set number (2 companies) to 1–4 (8 companies) for monthly reviews. One company reported reviewing 10% of calls monthly and another reported 15% of calls monthly. In survey 3, 68.8% of participants had established a formal, documented call monitoring process. Of note, 37.5% monitored calls per staff member weekly and 37.5% monitored calls per staff member monthly. A majority of participants (75%) recorded incoming calls; 50% recorded all calls and 18.8% recorded a random number of calls. Almost all participants (93.8%) reported that they self-audit using company standard operating procedures (SOPs). A corporate audit was performed at 13 of the 16 companies (81.3%). A majority of participants (68.8%) had been involved in an inspection or audit by a regulatory agency. Over time, it appears that a greater number of companies reported having quality assurance programs with more defined processes for call monitoring and a large number performed self-audits or have been involved in an inspection from a regulatory agency.

OUTSOURCING VERSUS INSOURCING

Hopkins et al. (3) reported in 1999 that outsourcing medical information contact center activities centered primarily around after-hours calls (Figure 4). The authors noted that only one company contracted with an outsourcing provider to respond to all departmental queries, both during and after business hours, while 11 companies used an outsourcing partner for after-hours calls only. Nine of the respondents did not utilize any outsourcing. In contrast, in survey 1 from 2004, a majority of respondents (87%) partnered with an outsource vendor with 20% ($n = 3$) utilizing outsource vendors for 100% of contact center work. Five companies noted they plan to outsource more, while con-

versely two reported having plans to insource some of the activities. Outsource vendor activities included support for after-hours calls, handling customer calls, and being part of planning for crisis situations or contingency plans. Similarly to the 2004 survey 1 findings, the 2005 survey 2 reported that 50% of respondents outsourced a significant part of the ongoing daily operations, including handling all non-HCP medical information calls, outsourcing a therapeutic area, or outsourcing the entire contact center operation. Four of the 12 (33%) centers utilized an outsource partner to handle contingency or crisis events, after-hours calls, or legacy products. The two remaining centers do not use outsource partners at this time but have used them in the past.

A greater number of companies are outsourcing various activities that may over time improve operational efficiencies and improve customer service. In 2008, respondents to survey 3 were asked additional questions to get a better understanding of the rationale (business drivers) for outsourcing as well as challenges encountered. The majority of survey participants (75%) outsourced at least some contact center functions. Respondents cited the following business drivers for outsourcing some or all of the contact center functions: cost (31%), headcount (31%), business continuity (25%), expertise availability (12.5%), overflow calls (6%), always been done (6%), and competitive advantage (6%). When asked what challenges exist when working with outsource partners, respondents noted quality control (25%), staffing issues (25%), cost control (19%), training and coaching (12.5%), and need for clarity (12.5%). A new finding in 2008 included the use of an offshore outsource partner. Offshoring refers to the transfer of a business function from one country to another, often with the goal of reducing the cost of business. Two companies (12.5%) contracted with an outsourced center that was offshore. One company's offshore center provided medical information while the other offshore center provided consumer affairs assistance including product complaints, adverse event reporting,

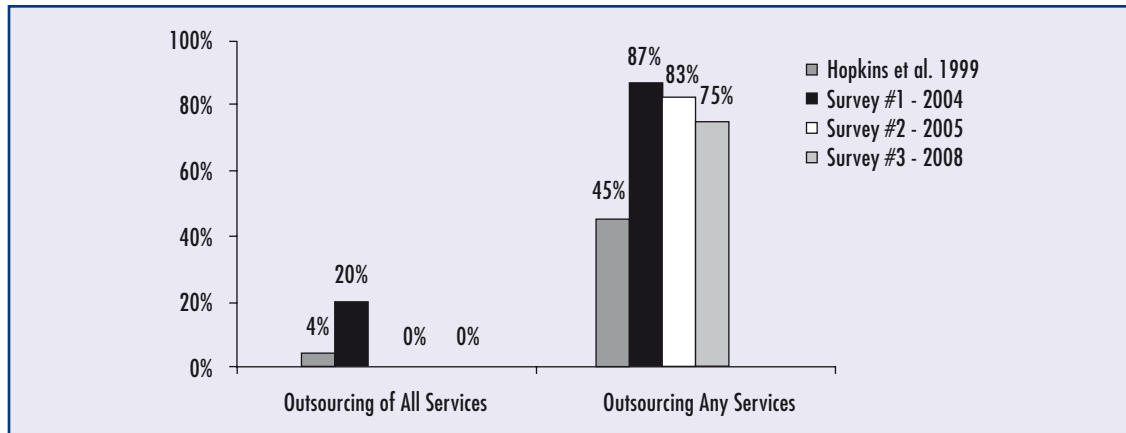


FIGURE 4

Summary of responsible use of outsourcing.

and general product-related questions. The cited challenges in managing offshore centers included quality control, training, and staff performance.

TECHNOLOGY

Appropriate use of technology is a critical part of maximizing effectiveness and efficiency in a contact center. The surveys conducted in 2005 and 2008 asked participants about the use of software applications and whether those systems were electronically integrated with other internal regulatory systems. Participants were also asked about the current state of validation for the contact center. A center that collects adverse event reports and product quality complaints, and would therefore be categorized as a Recognize, Collect, Input, and Transfer center, would most often have a validated system. If the system is not validated, such a center would most often use a paper-based process for the initial handling of adverse event reports and product quality complaints, or would perform direct input into the regulatory system. The surveys included questions about the computer system applications in use to handle customer contacts, and whether those applications were integrated with other internal systems or functional areas. Table 4 summarizes the findings in 2005 and 2008.

From survey 3 in 2008, it was noted that a majority of respondents (56.3%) were satisfied with overall system performance. These groups also noted that their system was user friendly

and intuitive from a staff perspective. Two companies (12.5%) were dissatisfied with system performance. All systems offered remote accessibility, which allowed staff to work at home, with 11 companies (68.8%) using or planning to use this feature.

GLOBALIZATION

An additional focus of the 2008 survey was globalization for medical information contact centers. Two companies (12.5%) indicated that their contact center systems were used in countries outside the United States. While this percentage was relatively low, many companies indicated that they were interested in utilizing systems to support globalization. A majority of the companies (81.3%) received contacts from countries outside of the United States at their US contact center. Two of the companies responded to these callers directly. Ten of the companies (62.5%) referred these callers to the appropriate country affiliate. Half of the companies (50%) used multilingual agents in their US contact center. Nine companies (56.3%) used translation services. One company had plans to implement translation services in 2009, but indicated that this was a low-priority initiative. On average, only 2% of all calls required use of multilingual agents, and fewer than 2% of all calls required translation service. Three companies (18.8%) reported that their system supported multiple languages. One company (6.3%) used or planned to use this capability within 1 year.

TABLE 4

Summary of Technology Results		
	Survey 2, 2005 (n = 12) (%)	Survey 3, 2008 (n = 16) (%)
System:		
Home built	25	18.8
Siebel	58	62.5
Other off-the-shelf system	17	18.8
Integrated with regulatory systems	25	43.8 (AE) 37.5 (PC)
Validated	42	75 (AE) 56.3 (PC)
AE, adverse events; PC, product complaints		

DISCUSSION

Benchmarking surveys provide valuable information for comparing functional area responsibilities and operations across one or several industries. Results from three benchmarking surveys of pharmaceutical medical information contact centers have been presented. The surveys were similar in focus and conducted at three time points separated by 1 and 3 years. These findings provide not only a snapshot of the contact center, but also a view of the progression of changes to organizational and operational processes of medical information contact centers over time.

Medical information contact centers most often reported to the medical affairs organization in all the surveys. The majority of contact centers employed health care professionals (pharmacists, nurses, and physicians). It was noted that non-health care professionals were used in some centers. This has been an increasing trend as non-health care professional agents are often less costly and can effectively provide selected services. In addition to providing medical information, contact centers included in the surveys provide several services that often accompany requests for medical information and can be provided by similarly trained and qualified agents. These additional services include intake and initial handling of adverse event re-

ports and product quality complaints. A review of the services provided within the centers over the years of the survey indicate that centers are becoming more focused in the services provided and there is now more of an organizational separation between the medical or regulated services and commercial services.

Pharmaceutical company contact center operational performance has historically lagged behind the operations of other consumer-oriented, regulated industries (eg, financial services, consumer packaged goods). In recent years, however, pharmaceutical contact center leaders have deployed many of the same customer-focused services, metrics, technology, quality monitoring, and training that have been in place in other industries. These actions have resulted in significant operational improvements for pharmaceutical contact centers.

A shift toward greater accessibility has occurred over time as well. Many of the organizations offered some form of after-hours access. Some companies instructed callers to call 911 for emergencies in addition to offering the option to reach an on-call representative. Some companies offered voice mail only, with no access to a company representative after hours. More recently, companies are accessible during longer scheduled hours as well as offering after-hour services. In addition, a greater number of

companies are gathering metrics that have been shown to improve operational efficiencies and overall customer service. Although quality assurance programs identify strengths and weakness while also assisting management to address issues with procedures or practices, formal quality assurance programs had not been commonly reported or implemented for medical information departments in the past (8). A greater number of companies reported having quality assurance programs with more defined processes for call monitoring and a large number performed self-audits or have been involved in an inspection by a regulatory agency. Self-auditing is a best practice that should be incorporated into the management of a contact center. The type, frequency, and authority of audits should be defined and documented in an SOP.

An outsourcing strategy is most successful when aligned to broader decisions and commitments for delivering a desired customer experience. Knowing what is valuable and important to the customer and deciding what is valuable and important to the organization helps to design, staff, and source the contact center to achieve performance goals. Hopkins et al. (3) reported in 1999 that outsourcing medical information contact center activities centered primarily on after-hours calls. The authors noted that only one company contracted with an outsourcing provider to respond to all departmental queries, both during and after business hours, while 11 companies used an outsourcing partner for after-hours calls only. Nine of the respondents did not utilize any outsourcing. A greater number of companies are outsourcing various activities that may improve operational efficiencies and improve customer service. In 2008, respondents to survey 3 were asked additional questions to get a better understanding of the rationale (business drivers) for outsourcing as well as challenges encountered. The majority of survey participants (75%) outsourced at least some contact center function. A new finding in 2008 included the use of an offshore (ie, outside of the US) outsource partner. The cited challenges in managing offshore centers

included quality control, training, and staff performance.

Awareness of the requirements for validating the contact management system has increased over time as additional regulated services have been added to the contact center. More organizations had validated systems in place in 2008 than in previous years. This may be due to the increasing trend of FDA inspections of contact centers specifically related to the capture of adverse events and product quality complaints. The FDA requires the system that captures adverse event and product quality complaint source data to be validated. Seventy-five percent of the survey 3 participants have validated systems. Survey responses revealed a potential vulnerability for contact centers in the area of compliance with FDA's Code of Federal Regulations for Electronic Records and Electronic Signatures (Title 21 CFR Part 11). Although 60% of the survey 3 participants responded that they are compliant with Part 11, several were unsure. Organizations often incorrectly conclude that if the system is validated, it is compliant with Part 11. Validation and 21 CFR Part 11 are two different regulations, with important differences. Validation is the process of demonstrating integrity and reproducibility of the system via pre-approved test protocols and predetermined acceptance criteria. Title 21 CFR Part 11 includes system validation as a check point, but the validation of the system does not necessarily address all requirements for being compliant with Part 11. Although an in-depth analysis of this area is outside the scope of this article, it is clear that more study of this area is important as the services performed by the medical information contact center continue to expand into regulated activities.

An additional focus of the 2008 survey was globalization of medical information contact centers. Although nearly all participants indicated that globalization was a key priority in the coming periods, few participants had a clear strategic or operational path for implementation. The area of globalization remained an area viewed with great opportunity but also with considerable uncertainty. Although the benefits

of a global contact center organization that shares medical, scientific, and customer information as well as a common technology platform seem apparent, the implementation details of globalization are much less clear. Globalization is not an end goal, but a means of delivering a desired customer experience that is consistent, compliant, and efficient across all customer contact center interactions.

One limitation of these surveys was that although they were similar, they were not all exactly the same. Respondents may have interpreted questions differently, which may have affected the results. Additionally, the survey interviews were not conducted by the same individuals across the three surveys; thus different interpretations of responses may have occurred. Survey 3 was conducted via personal interviews and as an online survey. These results may be varied since online surveys lack the ability to further discuss or explain a response or question with participants. A number of mergers and acquisitions had taken place over the course of the surveys. These consolidations and integrations of centers would have impacted the results over the years, thus potentially limiting the analysis for identifying trends.

CONCLUSION

The trends and challenges faced by pharmaceutical medical information contact centers include increasing efficiency and productivity of the process to handle increased call volumes to meet customer expectations, maintaining or creating a validated environment for business processes and systems to improve service, efficiency, and compliance, utilizing outsourcing options, including offshore or international contact centers, to help maintain costs and obtain flexibility, and last, to continue to add and show value to the overall organization.

Medical information contact centers are being asked to provide increasing services to customers, regulators, and their own organizations. Amid all of these demands there are new product launches, line extensions, marketing campaigns, system upgrades, and employees to hire, develop, and retain. The results of these three

benchmarking studies offer an overview of how pharmaceutical companies are taking on these challenges.

In reviewing the results of three pharmaceutical medical information contact center benchmarking surveys, key trends among survey participants emerged. All survey participants continued to employ medical professionals in their contact centers. While most survey participants have outsourced some contact center functions, only a small number utilized contact centers that were also offshore. Survey participants were proactively conducting self-audits to ensure an ongoing state of regulatory inspection readiness. Most participants were also performing quality assurance with call recording. The differences between computer system validation and Title 21 CFR Part 11 compliance remain an area requiring greater education and clarity.

Pharmaceutical medical information contact centers must continually add and show value to the overall organization. These results provide an overview of key areas within leading pharmaceutical medical information contact centers. This information is presented as a resource as contact centers develop and refine strategies for managing in today's challenging environment.

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