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Right Message at the Right Time

Digital signage delivers information hospitals and patients want. **By Robert Loeb**

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DeKalb Medical, a large metropolitan Atlanta health system, embarked on an innovative approach to improve communications with patients, physicians and staff through the use of large, flat-panel, LCD displays. To provide the digital signage technology and content, DeKalb Medical partnered with Vericom Corp., an Atlanta-based healthcare communications company well-known to hospital marketers for its SoundCare on-hold communications solution, used in hospitals nationwide for 20 years. Healthcare is Vericom's only business.

The name ChannelCare was coined to identify a digital signage system within a healthcare environment. For ChannelCare to have impact, it was important for the display monitors to be placed in the right locations while presenting the right message to the right audience. In order to communicate with patients, DeKalb Medical and Vericom identified three key hospital waiting areas that tended to be anxiety hot spots. Those three areas were the outpatient and inpatient surgery waiting areas and the imaging center waiting area.

To facilitate communication with physicians and staff, monitors were installed in staff lounges. Monitors were also installed in the cafeteria and wellness center, which are areas frequented by consumers, physicians and staff.

A decision on the programming content for the monitors was not as straightforward as was the choice of locations. For example, while research suggested the use of video monitors to improve consumers' perceptions of wait times, research was mixed as to what type of programming would be most effective.

Research suggesting the use of video monitors strongly recommended using programming that related directly to the situation (Haynes, Paula J. (1990), "Hating to Wait: Managing the Final Service Encounter," *The Journal of Services Marketing*, 4 (Fall), 20-26). Conversely, researchers from MIT (Katz, Larson and Larson, 1991) suggested that waiting consumers should be entertained in a lighthearted fashion. They suggested that, in a banking setting, consumers would prefer horoscopes and tabloid headlines to headline news.

In order to put the monitors to immediate use and to give physicians, staff and consumers an idea of the potential use of the monitors, initial ChannelCare programming focused on useful hospital information. Preliminary program content ranged from patient satisfaction award winners to cafeteria hours. It also included general health information, such as the need to wear sunscreen and the potential benefits of the HPV vaccine. To provide long-term direction for programming content decisions, three key groups were consulted: DeKalb Medical consumers, physicians and staff.

Exhibit 1

ChannelCare message targeting consumers



Consumers

A survey was conducted with DeKalb Medical consumers to ascertain their preferences. A total of 152 questionnaires were distributed in the following areas at DeKalb Medical's primary campus: the outpatient waiting area—79, inpatient pre-op surgery—38 and the imaging center waiting area—36. Of the 152 consumers surveyed, 45 were patients, while the other 107 were individuals accompanying patients during their hospital visits. Sixty-four percent of the consumers participating in the study were female.

The sample was predominantly split between African-American (48 percent) and Caucasian (42 percent) consumers with the largest percentage (32 percent) of respondents falling in the category of 35 to 44 years of age. For comparison purposes, 67 questionnaires were collected from individuals exercising in the hospital's wellness center. This step provided the opportunity to compare the hospital consumer results with another group at the hospital, one that was not waiting for a medical procedure or in an anxiety-laden situation.

The primary research goal was to ascertain what kind of programming various groups would like to see on the monitors. To that end, the consumers were asked the following open-ended question: If you could control the digital signage system and had complete control over content, what would you put on the monitors?

This was seen as an important issue, as it provided an opportunity to test the recommendation for lighthearted vs. relevant, information-based programming. The results strongly supported programming relevant to the situation. Fourteen percent of the responses involved a request for traditional television entertainment. When requests for news or sports programming were added, the percentage grew to 32 percent. However, when researchers combined the requests for information-based programming (i.e., medical, nutrition, general health and DeKalb Medical information), the total number was more than double (64 percent) that of entertainment requests.

In fact, more people recommended keeping the programming content as it was (essentially text and high-end graphics focusing almost exclusively on healthcare or hospital issues) than recommended the use of television. This result should make hospital staff happy as several staff members mentioned the disruptive nature of traditional television. Staff members should also be excited about the positive impact the ChannelCare system could have on their jobs. One-fourth (25 percent) of the consumers surveyed indicated that they had asked hospital staff at least one question since they arrived at the hospital. Almost half (47 percent) of those were simple questions, such as directions to the restrooms or cafeteria and thus could easily be presented in digital signage format, thereby reducing the questions that reach the hospital staff.

To provide more insight into the question of entertainment vs. situation-specific information, consumers were asked if they would prefer programming focused more on entertainment (television) programming, need-to know information or a mix

of entertainment and need-to-know information. The results were even more one-sided against pure entertainment-based programming. Only 5 percent of the respondents requested pure entertainment, while 93 percent wanted either need-to-know information (46 percent) or a mix of entertainment and need-to-know information (48 percent).

Next, respondents were presented with a series of potential programming topics and asked how likely they would be to watch each topic on the digital signage monitors located in the hospital. As with the previous studies, the results indicate that consumers want to see programming related to their present situation. As one patient stated, “I can watch television at

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home.” Another goal of this research was to ascertain the ability of the ChannelCare system, with its current programming, to capture the consumers’ attention. To that end, consumers were asked what topics they remembered seeing on the monitors. Well over half of the consumers (63 percent), recalled at least one topic from the monitors, with 16 percent remembering three topics, 19 percent remembering two topics and 18 percent remembering only one topic.

Consumers were also presented with five topics that were running in the programming sequence at the time of the inter-

view and asked if they recalled seeing each topic. The responses to this recognition item ranged from a high of 35 percent recognition for programming on medication tampering to a low of 30 percent for programming on trans-fatty acids. The wellness center subjects were significantly more likely to remember ChannelCare topics, as 79 percent recalled at least one topic. Perhaps this difference is not surprising because the wellness center subjects tended to be repeat visitors to the center.

Additionally, several questions were asked concerning the manner in which the programming was presented to the subjects. First, consumers were asked their opinions of the monitor graphics. Respondents were extremely positive about

the graphics, with 99 percent rating the graphics as adequate (8 percent) or very good (91 percent). Respondents were also asked their impressions of the timing of monitor changes. Again, the responses were quite positive, with 78 percent feeling the timing of monitor changes was about right, while 15 percent felt that the monitor changes were too fast. Only 5 percent perceived

the changes as too slow. Next, respondents were asked their impression of the number of unique monitor messages. Again, the respondents were very positive as 77 percent felt that the number of messages was about right, while 18 percent felt that there were too few unique messages and 5 percent suggested that there were too many messages.

The two final questions in this study concerned the format of programming. The first of these questions asked the respondent which of two approaches they felt would better attract and keep their attention. The first of these two approaches was the current text with high-end graphics format. The second format included the use of live action such as a physician talking about a procedure. The responses heavily favored the incorporation of live action messages (63 percent), as opposed to formats that depend entirely on written messages (37 percent).

Finally, this question was expanded to include an alternative format, which would split the monitor and place a national network, such as CNN, on one-half of the monitor and audience-specific messages on the other. Another option that was presented consisted of showing a national network, such as CNN and then breaking away on a regular basis to display the currently running healthcare-related topics. No clear preference emerged from this question.

Physicians and Staff

As with consumers, physicians were surveyed to gain input into programming decisions. Much like hospital consumers, when asked if they would rather see programming based on need-to-know information, pure entertainment or a mix of entertainment and valuable information, 75 percent of the

Exhibit 2

Multi-panel ChannelCare display targeting all audiences



Exhibit 3

ChannelCare messages relevant to where audiences wait



physicians recommended need-to-know information. The remaining 25 percent suggested a need-to-know information/entertainment mix, while no physicians recommended pure entertainment. Their responses on several implementation questions were also similar to consumer responses, as the majority of physicians felt that the graphics were very good and that the speed of monitor change and the number of unique monitor messages were about right.

Physicians were also asked how likely they would be to watch a number of different content choices. Responses clearly depict a focus on programming that is more informative, such as CMEs or staff meetings, as opposed to entertainment-based programming.

Perhaps what is most striking is the fact that 100 percent of the physicians surveyed indicated that they would watch certain categories of digital signage programming. Another promising detail is evidenced in the fact that a large percentage of physicians indicated they would be willing to watch programming that presented services available to them and their patients through the imaging center. Personal interviews were conducted to obtain staff's perceptions of the digital signage system and their preferences for programming content. When asked about programming ideas, the staff was very vocal. In general, staff interviews indicated that the staff viewed the digital signage monitors as great opportunities to communicate with consumers and colleagues.

The staff's interest in the ChannelCare programs was particularly evident in several comments from a DeKalb Medical remote site. DeKalb management placed one of the large monitors in a staff lounge at one of the system hospitals located approximately 18 miles from the main campus. In many interviews at this site, the staff only voiced one complaint: "Why was the monitor only placed in one lounge?" In fact, several staff members suggested that the monitors be placed in all physician and staff lounges and also in all patient waiting areas.

Additionally, several staff members suggested that the information ChannelCare presented concerning DeKalb Medical helped the physicians and staff at this remote location feel more a part of the DeKalb Medical Center team.

Next Steps

The results of this study clearly recommend providing situation-related programming in the patient waiting areas. Conversely, the responses from the 67 wellness center consumers, who were in a low anxiety/non-waiting situation, reveal that they are significantly less likely to watch any of the programming relating to healthcare issues.

However, the results indicate that ChannelCare was effective at reaching the wellness center participants, as their recall and recognition results were actually higher than the waiting room consumers. Using the results of this study, Vericom is updating the ChannelCare programming to approximate the consumers' wishes. In other words, the majority of the programming will be a mix of general health and medical content that pertains to the specific needs of consumers in a certain area. This approach satisfies the desire for information expressed by consumers, giving the staff more time for patient care.

The results of this study also indicate that consumers in patient waiting areas desire programming that includes some live action. In addition, they suggest that programming in the physician and staff areas should steer away from entertainment and instead focus on need-to-know information. This technology has the potential to bridge the communication gaps in hospitals by keeping both physicians and staff updated with current information concerning the hospital and their profession.

Digital signage technology offers hospital administration an outstanding communications tool to reach all of its critical audiences and improve the perception of consumer wait time. With the right location and content, digital signage offers an avenue for improving the hospital consumer's perceptions of his wait and can help bridge the communications gap between hospital administration and physicians and staff.

However, location and content decisions are critical to the success of digital signage-based communication initiatives. These decisions should not be made without significant research and input from physicians, staff, administration and consumers. To account for variances in viewers' preferences from hospital to hospital and within the same hospital over time, research should be conducted on a formal periodic basis. **MHS**

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This article has been adapted from a 2006 white paper from Vericom Corp. For more information on Vericom Corp. and its solutions, please call 800-800-1090 or visit www.vericom.net.