



# **Improving the Work Environment in Gulf Coast Hospitals**

***Work Environment Survey 2005***

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## Introduction

The Gulf Coast Health Services Steering Committee has taken on the challenge of making regional hospitals the employers of choice for nurses and other allied health staff. Steering Committee leaders realize that there will be no lasting solutions to the healthcare staff shortage unless they create a work environment that attracts new staff and increases the retention of existing staff. The 2000 study of nurse turnover by The Advisory Board Company for the Nursing Executive Center reported that the primary reason nurses leave hospital environments is that their current working environment is less attractive than alternatives available to them, which may be in other hospitals or in non-hospital settings. These regional hospital leaders have adopted a charge to become instruments of change to encourage and support each other in transforming their work environments and thereby the hospital industry in the Gulf Coast region.

The 2005 Work Environment Survey is part of the quality improvement project, *Improving the Work Environment in Gulf Coast Hospitals*, developed by the Gulf Coast Health Services Steering Committee (GCHSSC). This committee consists of a regional partnership including the Greater Houston Partnership, the Gulf Coast Workforce Board, participating hospitals, and nursing schools. The Work Environment project is funded in part by a grant from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Nurse Education, Practice and Retention Program.

The Gulf Coast region consists of 13 counties facing a substantial current nurse shortage and large expected annual growth rates for nursing jobs. All or part of the 13 counties are designated as underserved and contain 17 hospitals that are rural hospitals or are located in Medically Underserved Areas (MUAs) or Health Professional Shortage Areas (HPSAs). The current nursing workforce does not reflect the great ethnic diversity of the Gulf Coast region, especially the limited English proficiency of many residents. Altogether, as corroborated by research, these regional characteristics cause decreased retention of nurses, poor work environments, a greater incidence of medical errors, and insufficient patient access to care.

The GCHSSC Work Environment Workgroup developed an industry model for improving the work environment, rather than an individual organization approach. This model creates a shared vision of the ideal hospital work environment and measures progress toward this ideal. It encourages and supports participating hospitals and offers best practices to those interested in making improvements. The “how’s” of the model, such as which practices to modify as first priorities, are left up to the individual hospitals so that they may customize their improvement plan according to their needs. The model is dynamic. Annual survey reviews accommodate adjustments to the vision of the ideal and to current industry norms as participating hospitals make improvements. Because it uses individual hospitals as the basic unit of analysis, the model enables hospitals to

measure themselves against both the norm and the ideal and mark their progress toward the ideal. The analysis can also be aggregated at the hospital system and industry levels, so it also establishes a mechanism for individual and collective accountability.

The model incorporates four steps:

- 1. Envisioning the Ideal Work Environment.** The Gulf Coast Health Services Steering Committee participating hospitals have identified the key dimensions of the ideal hospital work environment and set the highest standards of performance possible. These ideal statements contain definitions, standards, example best practices, and measures of effectiveness for these five dimensions (see Appendix A).
- 2. Assessing the Current Work Environment.** Each participating hospital shares measurement data and examples of best practices in return for a customized report, comparing that hospital's performance to the industry norm and the ideal. Individual comparative data is only given to the hospital owner of the data. Other reports are anonymous. The Work Environment Surveys enable this step through the collection of measurement data and best practices.
- 3. Defining the Industry Norm.** The industry norm or standard is established by determining the median performance of all participating hospitals on each measure.
- 4. Recognizing Outstanding Performance and Sharing Best Practices.** A best practice clearinghouse is developed to encourage and facilitate the sharing of best practices. Annually, a conference is held to recognize outstanding participation and innovative best practices. This event also enables participants from different hospitals to develop networks among interested professionals in the area.

The model's primary strategy is to establish best practices that change the work environments in hospitals consistent with the Ideal Work Environment Model. These types of activities enhance collaboration and communication among nurses and other health professionals, including physicians, as well as promoting the full involvement of nursing professionals in organizational and clinical decision-making.

The Ideal Work Environment Model includes:

- **Professionalism:** Professional behavior standards are developed and disseminated to all employees and are modeled by hospital executives. In the ideal work environment, part of executive pay is contingent on demonstrated professionalism.
- **Interpersonal Communications and Teamwork:** Hospital leaders create an open environment that supports the free sharing of information, as evidenced by listening behaviors, so that all providers contribute their expertise and participate in decision making without being belittled or ridiculed by staff with more power and greater status, and without fear of retaliation. These competencies are established on a multidisciplinary basis and are related to patient care outcomes,

not to the preferences, needs, or desires of the patient care professional, ensuring that the system is patient-driven, not provider-driven.

- **Staff training and development:** The hospital makes a strong commitment to lifelong learning for all staff, including financial support, career counseling, mentoring, leadership and management training, cross-cultural skills training, and methods that encompass collaboration with institutions of higher education and utilize cutting-edge technology.
- **Environmental factors:** Front-line staff participate in strategic and operational decision-making, implement practices to ensure a safe work environment, and participate in scheduling and workload decision making that is data-driven and supports the principles of balanced work and family life. In addition, work is designed to be meaningful and rewarding and to accommodate older patient care professionals.
- **Economic considerations:** Healthcare professionals are compensated at levels that encourage them to continue in direct patient care positions. That includes setting salaries so that point of service professionals are compensated well and in a way that is superior to those working in less stressful work environments within and outside of hospitals. Compensation and the work environment create positive career options, thus increasing retention. Finally, compensation is based on demonstrated core competencies.

The Gulf Coast Health Services Steering Committee believes that by successfully implementing best practices from the many hospitals participating in this project, all hospitals can improve their work environments, achieving substantial success on measures such as job satisfaction, employee satisfaction, patient treatment outcomes and financial performance. These strategies are similar to, but more ambitious than, those characteristics required for Magnet Hospital certification. In addition, creating a positive work environment will increase the attractiveness of the healthcare professions, especially nursing, to the diverse array of potential employees in the region, so that the nursing workforce will reflect the population diversity more closely. This will increase the cultural competency of the healthcare staff and improve the care of patients.

# Methodology

## *Survey Development*

The 2005 Work Environment Survey is very similar to the second Work Environment Survey in 2004. It is the third in a series of surveys repeated annually as part of the continuing process to improve the work environment in area hospitals. This assessment provides an additional estimate of industry normative values and suggestions for approximating ideal performance. Over time, values will adjust as performance fluctuates. Repeated measurements enable the identification of trends in performance improvement and relationships between performance drivers and successful outcomes.

The complete work environment survey measurement system includes an array of leading measures (performance drivers) as well as lagging measures (success outcomes). Because of the need to compare 2005 performance to levels on outcome measures to 2003 and 2004, the survey is heavily weighted to include similar lagging or outcome measures. These measures, such as turnover, gauge the end results of work environment characteristics. The survey also contains a few measures, such as training hours, which are performance drivers. Survey measures are reviewed annually for effectiveness in measuring the drivers and outcomes of work environment performance. Additional performance driver measures will be added to future surveys. Also, measures may be eliminated or modified based on their lack of variance or the ability or willingness of hospitals to provide the data in the manner requested.

The 2005 Work Environment Survey's measures were developed by the Work Environment Workgroup of the Gulf Coast Health Services Steering Committee (see Appendix B for a list of members). This volunteer group consists of expert human resources and nursing executives from regional hospitals. In general, the members have significant experience in benchmarking, hospital outcomes measurement and survey design. Members used the Work Environment Survey 2004 as a starting place for the development of the 2005 survey. The project coordinator asked members of a survey review committee of the Work Environment Workgroup to submit suggestions regarding deletions, additions, or changes to the survey for 2005. Members considered the relevance of the work environment survey questions, the value of the information received, and their experiences using the on-line survey tool and working with the survey coordinator. The Project Coordinator compiled this information and presented a summary recommendation report to the Work Environment Workgroup. Suggested changes were adopted by the Workgroup.

Several significant changes were made to the methodology used for the survey:

- The decision was made to create separate surveys for the data-oriented questions and the recommended practice solicitation. The on-line survey was kept for the

data-oriented questions. Generally, hospitals liked the on-line accessibility and user-friendly format. However, they noted that office staff often completed the data-oriented questions as compared executives who should complete the practice questions. Therefore, the decision was made to send a web-based Work Environment Practices Survey to the main survey contacts (executives) to complete the practice portion of the survey. After a review of alternatives, Zoomerang was selected as the survey tool for the practices survey.

- The timing of the survey was changed in response to hospital complaints that the survey deadline coincided with end of year activities. So the survey data entry times were moved to September 15 to November 30, 2005. However, due to the impact of hurricanes Katrina and Rita, hospitals started survey data entry but were unable to complete the surveys on time. The survey data entry was finally closed January 13, 2006.

Most of the survey data collection items and formulas had no changes for 2005. Three items, beds in operation, number of external training hours, and total training expenditures, were eliminated. “Beds in operation” was eliminated because the reported beds usually did not match the “official” number of beds that hospitals report, possibly due to constant in-use fluctuation. It was felt by members that using the “official” number was more representative. The two training items were eliminated because hospitals were not accustomed to capturing this information and members felt that the few entries submitted were not representative of actual data, most of which could not be accumulated or reported. Second, the decision was made to de-emphasize LVN data in the survey. Hospital representatives felt that fewer LVNs are being utilized and that data on nurse practitioners and physician’s assistants (NP/PA) would be of greater interest. Therefore, on turnover, retention, and vacancy measures, the LVN category was replaced with an NP/PA category. LVN was also eliminated from the ethnicity and gender data measures. Third, the formula for calculating Patient to RN ratios was changed. Hospitals felt that the outcome measure using the ratio of the daily average number of patients compared to the average daily number of RNs in units led to skewed results. Many hospitals use hours per patient day (HPPD) as an alternative. Based on this feedback, the formula was changed to HPPD, which is reported by hospitals for medical and ICU units. Finally, average age was added as a measure, with hospitals reporting the average age of RN and all employees for males and females. This measure was added to determine if average ages in the Houston-Galveston region were consistent with nation-wide results. The survey is presented in Appendix C.

The Work Environment Practice Survey was developed based on questions from the 2004 Work Environment Survey. The survey is presented in Appendix D. Members volunteered to review each of the five sets of practice questions from the 2004 survey and submit recommended changes. Minor changes in survey items were made to reflect these recommendations.

Along with the solicitation of recommended practices, all hospitals were asked to attribute their success using a list of initiatives, just as top performers were asked in 2004. The same question used in 2004 was included in the practice survey. All hospitals were asked to indicate what major initiatives they considered as key to their success. In 2004, only top performer hospitals were asked this question. The decision was made in 2005 to ask all hospitals so that responses could be compared. (Top performer or non-top performer status was determined in the same way as in 2004, except the comparison thresholds used 2004 results instead of 2003 results. The data collection survey retained the functionality of calculating and comparing each hospital's results to the 2004 turnover rate (for all employees and RNs only), vacancy rate (for all employees and RNs only) and RN staff satisfaction, and evaluating if each hospital's performance met or exceeded a score equal or better than the 25<sup>th</sup> or 75<sup>th</sup> percentile - as appropriate to the measure, the level established in 2004 to indicate high performance. Hospitals were not informed whether they were top-performers.) All hospitals were asked to select from a list of 13 initiatives or to write-in initiatives that they believed made a major contribution to this successful outcome. If hospital contacts did not complete the practice survey, an email with this question was sent separately in order to obtain as large a sample as possible.

The results of this survey are presented using the five dimensions of the ideal work environment. Measures have been placed under dimensions based on their similarity to statements of the ideal work environment developed by the Work Environment Workgroup. Although the outcome measures are obviously related to more than one dimension, they have been placed under a single dimension for reporting purposes.

## ***Survey Analysis***

When statistical analyses are reported, median (50<sup>th</sup> percentile), 25<sup>th</sup> percentile (lowest quartile) or 75<sup>th</sup> percentile (highest quartile), minimum and maximum are listed. These statistics were chosen because they represent the mid-point of the sample, low or high quartiles, and show the range of data presented without having a mean distorted by a few outlying data points. By using these as a basis for comparison, hospitals can determine the industry normative mid-point and the top performers in the sample. When 2002, 2003, or 2004 data is available for comparison, net change is calculated as a simple subtraction, while percent change is calculated as the percentage of change.

## ***Survey Administration***

All 101 hospitals in the Gulf Coast Region were invited to participate in the project. Invitations were mailed to all Chief Executive Officers in September 2005. CEOs returned a fax sheet or email, stating whether they would participate in the project and designating a survey contact person. The data collection survey was available on-line, using the Gulf Coast Health Services Steering Committee website ([www.gchssc.com](http://www.gchssc.com)).

Hospitals agreeing to participate in the survey were assigned a unique identification code in order for them to enter data confidentially. This code was sent via email to designated survey contacts. The survey was available on-line from September 2004 through January 13, 2005. The original survey completion deadline of November 30 was extended to allow for greater participation, and follow-up phone calls were made and email reminders were distributed to increase the numbers of responses.

The Work Environment Practices Survey was administered using the web-based survey tool, Zoomerang. The Zoomerang survey was sent to designated survey contacts in late January 2006, and remained available for completion through mid-February, 2006. Reminders were sent twice to survey contacts.

### ***Time Demands***

Due to concerns about the length and complexity of the survey, participants were asked to track and report the hours needed to complete the survey. Little more than one-third of respondents provided this information. The percentage of hospitals reporting this information has decreased since 2003, perhaps a sign that hospitals are so committed to the project that time to complete the survey is not an important factor for many of them.

Table 1 shows the time reported by all respondents, also subdivided according to those who completed all the survey, those who completed most of the survey (one or two sections missing), and those who completed part of the survey (more than two sections missing). The median is the 50<sup>th</sup> percentile and the lowest quartile is the 25<sup>th</sup> percentile. There was a very wide disparity in the time needed to complete the survey. However, time to complete the survey did not seem to be solely a factor of how much of the survey was completed, probably due to differences in hospitals' data reporting capabilities and systems, in addition to variables like hospital size and complexity that create data reporting issues. The median time for to complete the entire survey (15 hours) was slightly less than the 18 hours reported in 2004.

**Table 1**  
**Hours to Complete the Survey**

	<b>Number of Hospitals Reporting</b>	<b>Median</b>	<b>Lowest Quartile Boundary</b>	<b>Minimum</b>	<b>Maximum</b>
<b>All Hospitals</b>	16	4.5	2.5	.5	80.0
<b>Complete</b>	3	15.0	NA	15.0	80.0
<b>Mostly Complete</b>	6	4.0	2.0	1.5	10.0
<b>Partially Complete</b>	7	4.0	.5	.5	30.0

NA Number of respondents in the sample is too small to calculate the quartile.

## *Survey Participation Rate*

Table 2 shows the participation rate and beds accounted for by participating hospitals. Participation had increased from 45 hospitals in 2003 to 49 hospitals in 2004. When the project enrollment and data collection began in 2005, participation had increased to 52 hospitals, but after hurricanes Katrina and Rita placed tremendous stress on the region's hospitals, nine hospitals were unable to complete the data-oriented survey. This especially affected the small and middle size hospitals. All of those hospitals expressed regret and indicated that they wanted to participate in 2006 and beyond. With the loss of nine hospitals, the participation goal was not met. In total, four new hospitals joined the survey in 2005 and ten hospitals that had participated in 2004 were not able to participate in 2005. Sixty-seven percent of the hospitals were general acute hospitals. The remaining hospitals were long term acute, pediatric, and other specialty hospitals. A comparison of hospitals participating in 2002-2005 is shown in Appendix E.

**Table 2**  
**Participation Rate**

	<b>Year 3 Project Goal</b>	<b>Participants</b>	<b>Total in Region</b>	<b>Percentage of Total in Region</b>	<b>Percentage of Goal Achieved</b>
<b>Hospitals</b>	50	43	101	42.6%	86.0%
<b>Hospital Beds</b>	16,618 (80%)	12,527	20,773	60.3%	75.4%
<b>DSH Beds*</b>	5,271 (80%)	4,381	6,589	66.5%	83.1%

\* DSH = Disproportionate Share Hospital

## *Participating Hospital Characteristics*

Table 3 shows the participating hospitals' settings, locations, general activities, and bed sizes. The majority of the participating hospitals were not for profit. Non-Texas Medical Center hospitals dominated the participation, since they included 81% of the total sample, including 61% of the total beds. All hospitals reported data for their inpatient units, with 97% including data for their inpatient surgical units. Eighty-eight percent of the hospitals included data for their outpatient surgical units. Only 69% of the hospitals included ambulatory clinics in their data. Hospitals were distributed differently from 2004, with a similar number of hospitals in all categories except 250-499 bed size category, which suffered a 26% reduction in participation. The largest hospitals (500+ beds) accounted for 55% of the total beds in the sample.

**Table 3**  
**Characteristics of Participating Hospitals**

	Number of Hospitals	Percentage of Total Sample	Number of Beds*	Percentage of Total Beds in Sample
<b>For Profit</b>	14	33	3,139	25
<b>Not for Profit</b>	23	53	6,095	49
<b>Government</b>	6	14	3,293	26
<b>Texas Medical Center</b>	8	19	4,856	39
<b>Non-Texas Medical Center</b>	35	81	7,671	61
<b>Inpatient units</b>	43	100	12,527	100
<b>Ambulatory Clinics</b>	25	58	8,623	69
<b>Inpatient surgical units</b>	36	84	12,138	97
<b>Outpatient surgical units</b>	29	67	10,976	88
<b>&lt; 100 Bed Hospitals</b>	14	32	727	6
<b>100 - 249 Bed Hospitals</b>	11	26	1,703	14
<b>250 - 499 Bed Hospitals</b>	11	26	3,129	25
<b>500+ Bed Hospitals</b>	7	16	6,968	55

\* *Bed size reflects licensed beds reported in the 2006 Texas Hospital Association Directory.*

## *Participating Hospital Employees*

The distribution of healthcare employees in the 43 participating hospitals is shown in Table 4. The totals represent the number of full-time and part-time employees in each category as of 9/30/2005. This year, the survey did not collect the number of LVNs in the participating hospitals, but did collect the number of nurse practitioners/physician's assistants (NP/PAs). The number of RNs exceeds the sum of NP/PAs, pharmacists, and other licensed and certified clinical providers. Compared to 2004, there were only 1.4% fewer RNs in these hospitals although the total number of employees dropped by almost 15%.

**Table 4**  
**Participating Hospital Employee Population**

	Total Number of Employees	Percentage of Total Employees
<b>All RNs</b>	15,269	30
<b>All NP/PAs</b>	531	1
<b>All Pharmacists</b>	764	2
<b>All Other Licensed/Certified Clinical Providers</b>	6,013	12
<b>All Employees</b>	50,098	100

The Texas Workforce Commission's Covered Employment and Wages report for September 2005 shows a total of 92,179 jobs reported by hospital employers. Allowing for a number of hospital employees who may work at more than one hospital, it is clear that this survey covers a majority (54%) of hospital employees in the Gulf Coast region.

## Key Findings

**The results of the 2005 Work Environment Survey indicate that Gulf Coast hospitals have made a substantial commitment to benchmark and improve work environment outcomes.**

- In spite of the problems caused by hurricanes in the fall of 2005, the project achieved 86% of the participation goal for Year 3, including 43 hospitals.
- These hospitals represented 60% of total beds and 66.5% of DSH beds in the region.

**The large variances across hospitals indicate that there is ample room for changes that can improve work environment outcomes.**

Key findings are organized according to the five dimensions of an Ideal Work Environment:

### 1. Professionalism

**Nurses' high performance ratings moderated in 2005.**

- A similar percentage of all employees and RNs were rated at the highest level of performance on appraisals.
- RNs and all employees had a median performance appraisal rating of 3.3 on a five-point scale.

### 2. Interpersonal Communication and Teamwork

**Nurses continue to indicate a similar level of top satisfaction, with over one-third highly satisfied with their jobs.**

- Approximately 39% of RNs indicated the highest level of satisfaction on job satisfaction surveys, similar to 2003.
- The median satisfaction rating was 3.8 on a five-point scale.

**Patients are still very satisfied.**

- Over 60% of patients rated their most recent health care encounter at hospitals, as well as their satisfaction with nursing care, at the highest level of satisfaction.
- The median average patient satisfaction rating was 4.4 on a five-point scale.

### 3. Staff Training and Development

**RNs receive substantial training hours, but their lead decreased in 2005.**

- In terms of their development, RNs were provided 25% more internal training hours than all employees and managers.
- Compared to 2003, training hours increased for all employees but decreased for RNs.

**The mid-manager level has been shown to be key to retaining employees but was substantial hours were not allocated by hospitals in 2003-2004. In 2005, hospital leaders took on this challenge.**

- Supervisory and management training hours increased almost 300% since 2004.

**RN diversity is increasing.**

- The ethnic distribution of RNs was less diverse than that of all employees, however, for the first time since 2003, the total number of minority RNs is greater than the number of white RNs.
- Participating hospitals employ over 80% of the region's minority RNs working in hospitals.

#### **4. Environmental Factors**

**The range of responses to staffing items show that hospitals are working from different concepts of appropriate staffing strategies.** Staffing results include:

- The median agency utilization was 1.3%, although median overtime utilization was 7.4%. Agency use has constantly decreased and overtime use has constantly increased since 2003.
- The staffing mix measures reported medians of 67% RN, 9% LVN, and 18% Patient Care Assistants based on their total productive hours, down from 2003.
- The median RN hours per patient day was 13.6 for ICU and 6.4 for medical units.

**Retention indicators show dramatic and varied results, especially compared to 2002.** Retention issues were a primary focus of the project and most hospitals provided information in this area.

*Turnover results show:*

- Turnover for full-time staff ranged from approximately 0% to 17%, down from 2002.
- All employees (117.2%) had a slightly higher turnover rate than RNs (14.3%).
- Median part-time turnover was more than twice the full-time rate for all employees and other licensed staff.
- Several hospitals reported zero turnover in some staff categories, especially for NP/PAs and pharmacists.
- Since 2002, annual turnover changed dramatically for all categories of staff. RN turnover has decreased 39% (percent change).

*Three-year turnover results show:*

- Median turnover was high, at or above 45% for all full-time employees and RNs, but the variances indicated very large differences among hospitals.
- The three-year turnover rate for part-time staff was substantially higher than for full-time staff, except for NP/PAs.

*Retention rate results show:*

- Hospital retention rates varied dramatically.

- Median 2005 annual retention rates for all full-time staff categories were in the 80-90% ranges.
- Median three-year retention rates for all full-time staff categories were in the 70-80% ranges, up from 2004.

*Vacancy rate results show:*

- The median full-time vacancy rate for all employees was 4%, but RNs had a median vacancy rate of 6%.
- Median vacancy rates for full-time and part-time NP/PAs and pharmacists were very low, at zero percent.
- Vacancy rates for part-time staff were higher than for full-time staff only for all employees.
- Compared to 2002, the vacancy rates for all employees, RNs, and other licensed and certified staff have dropped significantly, while there has been little change in vacancy rates for pharmacists.

*Average tenure and age were nearly identical for all employees and nurses.*

**Patients' medication error rate and infection rates were highly variable among hospitals, indicating that potential improvement in their physical outcomes seems feasible.**

- The median medication error rate and ICU infection rate decreased nearly 100% since 2003.
- Ventilator pneumonia and surgical site infection rates decreased substantially since 2004.

## **5. Economic Factors**

**Most hospitals experienced slimmer operating margins in 2004.**

- The median operating margin was 3.6%, up 10% from 2004, but down 34% from 2003.
- Hospitals reported a wide range of operating margins, from -15% to 34%.

**Twenty-six hospitals qualified as high performers due to top quartile performance on turnover, vacancy rate, or nurse staff satisfaction data.** The most commonly attributed initiative contributing to successful performance on these measures by both high performing hospitals and non-high performing hospitals was management development.

**Finally, hospitals are more than willing to share their success stories.** Hospitals initially submitted 47 recommended practices on dimensions of the Work Environment Model, an increase from 2004.

# Survey Results

## *Professionalism*

The indicators of Professionalism selected by the Work Environment Workgroup were performance appraisal rating levels. These were the most readily available outcome (lagging) measures related to this dimension. These measures were selected because hospitals with ideal work environments describe their expectations regarding professional behavior through their core organizational values statements. Employees are selected, evaluated, and rewarded for demonstrating professional behavior in their interactions with each other and patients.

## **Performance Appraisal**

In general, over eighty percent of hospitals reported information regarding their performance appraisals. Hospitals submitted performance appraisal data for the most recent annual performance period available. Hospitals reported, for RNs and all employees, the percentage of performance appraisals earning the highest possible overall performance appraisal ratings and the average performance appraisal ratings. They also reported the period covered by the most recent annual performance period and provided the rating scale and scale descriptors used to rate employees.

Table 5 shows the percentage of performance appraisals earning the highest possible rating:

- A very wide range of data was reported for the percentage of RNs and all employees receiving the highest overall ratings.
- The medians indicate that a similar percentage of all employees and RNs received the highest overall ratings.

**Table 5**  
**Performance Appraisal Percentage**  
**Highest Overall Ratings**

	<b>Number of Hospitals Reporting</b>	<b>Median</b>	<b>Highest Quartile</b>	<b>Minimum</b>	<b>Maximum</b>
RN	35	3.64	11.96	0.00	85.00
All Employees	34	4.14	10.48	0.00	80.50

Average performance appraisal ratings were submitted using each hospital's rating scale. Five different rating scales were used among hospitals. In order to provide comparisons, most rating scales were converted to a five-point scale. Thirty-three hospitals used

met/did not meet expectations, four used poor/excellent performance, seven used satisfied/not satisfied, and one used frequency (percent standards met). Other scales were not described. All but one hospital reported data that was collected in 2004-2005. All hospitals reported at least nine months of data.

Table 6 shows the average performance appraisal ratings for RNs and all employees:

- The wide range of minimum and maximum ratings shows that there is probably a disparity in rating practices across hospitals.
- RNs and all employees had the same median performance appraisal ratings.

**Table 6**  
**Average Performance Appraisal Ratings**  
(Average Using 5 point Scale)

Average Performance Appraisal	Number of Hospitals Reporting	Median Rating	Highest Quartile Boundary Rating	Minimum Rating	Maximum Rating
RNs	28	3.37	3.79	2.68	4.92
All Employees	28	3.37	3.97	2.81	4.83

Table 7 shows a comparison between 2003, 2004, and 2005 performance appraisal ratings:

- Highest overall performance ratings for RNs have moderated greatly since 2003, when 19.5 % of RNs received ratings in the highest category.
- The percentage of RNs receiving ratings in the highest category continued to decrease in 2005, for a total decrease of 81% since 2003.
- The percentage of all employees receiving ratings in the highest category decreased by 56% from 2004 to 2005, for a total decrease of 48% since 2003.
- The median average performance appraisal ratings for both categories decreased from 2004 and were slightly lower than 2003, indicating that both nurses and all employees were performing on an average level.

**Table 7**  
**Change in Performance Appraisal Ratings**

	2003 Median	2004 Median	2005 Median	Percent Change 2004-2005	Net Change 2003-2005	Percent Change 2003-2005
<b>Highest Overall Rating</b>						
RNs	19.50	4.49	3.64	↓ -18.93	↓ -15.86	↓ -81.33
All Employees	8.00	9.38	4.14	↓ -55.86	↓ -3.86	↓ -48.25
<b>Average Ratings</b>						
RNs	3.60	3.83	3.37	↓ - 12.01	↓ -.23	↓ -6.39
All Employees	3.68	3.75	3.37	↓ -10.13	↓ -.31	↓ -8.42

## *Interpersonal Communication and Teamwork*

The Work Environment Workgroup selected two measures of Interpersonal Communication and Teamwork for the survey: nursing staff satisfaction and patient satisfaction. The Interpersonal Communication and Teamwork dimension describes an ideal work environment that facilitates communication through shared decision-making, open communication and excellent teamwork. Employees in these environments work well with each other and their patients. In addition, hospitals with these work environments are recognized by their employees as some of the best places to work in the region.

### **Nursing Staff Satisfaction**

To measure nursing staff satisfaction, hospitals were asked to report data for the most recent period available and to provide the dates of service covered by that survey. If data for RNs only was not available, hospitals were asked to report data for the organization group that best reflected the nurses' opinions. Hospitals reported the percentage of nursing staff reporting the highest level of job satisfaction possible on the employee satisfaction survey, the average nurse job satisfaction rating, the rating scale used in the employee satisfaction survey and its descriptors, and the period covered by the survey.

Table 8 shows the percentage of nursing staff with the highest level of satisfaction:

- The range of percentages reported is very large.
- It is noteworthy that many hospitals reported high percentages, reflected in the highest quartile, which seems to indicate that a large number of nurses are satisfied overall.

**Table 8**  
**Nursing Staff with the Highest Satisfaction**

<b>Number of Hospitals Reporting</b>	<b>Median Percentage</b>	<b>Highest Quartile Boundary Percentage</b>	<b>Minimum Percentage</b>	<b>Maximum Percentage</b>
25	38.8	69.7	0.0	93.0

Seventeen of the reporting hospitals used a five-point scale to rate job satisfaction. Data from twelve other hospitals was converted from a three- or four-point to a five-point scale so that average nurse job satisfaction data could be compared. Fourteen hospitals used a strongly disagree/strongly agree scale, thirteen used a very dissatisfied /very satisfied scale, and the others used a variety of scales that reflected excellence or frequency.

Table 9 shows the average nurse job satisfaction data:

- Ratings were high, with the median almost a four on a five-point scale, indicating that nurses were generally satisfied with their jobs.

**Table 9**  
**Average Nurse Job Satisfaction Ratings**

<b>Number of Hospitals Reporting</b>	<b>Median Rating</b>	<b>Highest Quartile Boundary Rating</b>	<b>Minimum Rating</b>	<b>Maximum Rating</b>
24	3.82	4.04	2.71	5.00

All except three hospitals reported data in which the final collection occurred in 2005; those hospitals reported data that was collected one year earlier. The majority of hospitals reported data collected for 5 months or longer.

Table 10 shows changes in nurse satisfaction ratings since 2003:

- The median percentage of nurses reporting the highest level of job satisfaction increased slightly in 2005, bringing it just below the 2003 level.
- There is very little change in job satisfaction medians from 2003 to 2005, with slight decreases each year.

**Table 10**  
**Change in Nurse Satisfaction Ratings**

	<b>2003 Median</b>	<b>2004 Median</b>	<b>2005 Median</b>	<b>Percent Change 2004-2005</b>	<b>Net Change 2003-2005</b>	<b>Percent Change 2003-2005</b>
Highest Level of Satisfaction	39.80	37.00	38.80	↑ 4.86	↓ -1.00	↓ -2.51
Job Satisfaction	3.96	3.93	3.82	↓ -2.80	↓ -.14	↓ -3.54

## **Patient Satisfaction**

Hospitals reported patient satisfaction data for the most recent period available. They reported the percentage of patients reporting the highest level of overall satisfaction with the most recent hospital encounter, the percentage of patients reporting the highest satisfaction with nursing care, the average patient satisfaction rating, the rating scale used in the patient satisfaction survey, the scale descriptor, and the period covered by the most recent patient satisfaction survey. All hospitals reported data in which the final collection occurred in 2005. The majority (19) of hospitals reported data collected for 2-3 months, but nine hospitals reported ratings collected for 9-12 months. All hospitals used an agreement scale to rate satisfaction.

Table 11 shows the percentage of patients reporting the highest level of overall satisfaction with their most recent hospital encounter:

- The range of percentages reported is very large.
- It is noteworthy that many hospitals reported high percentages, reflected in the highest quartile, which seems to indicate that a large number of patients are satisfied overall.
- The median rating of satisfaction with nursing care is very similar to median overall satisfaction.

**Table 11**  
**Patient Satisfaction**

	<b>Number of Hospitals Reporting</b>	<b>Median Percentage</b>	<b>Highest Quartile Boundary Percentage</b>	<b>Minimum Percentage</b>	<b>Maximum Percentage</b>
Percent Highest Overall Satisfaction	31	62.00	79.70	20.10	98.00
Percent Highest Satisfaction with Nursing Care	35	60.29	76.48	23.20	98.00

Fifteen hospitals provided average patient satisfaction scores that used a five-point rating scale. Another twelve hospitals' data, which used other rating scales, were converted to five-point scale scores for comparison purposes. Ten hospitals used an excellence scale for the rating, ten hospitals used a satisfaction scale, six used an agree-disagree scale, and the other one did not give a description of satisfaction statements.

Table 12 shows the average patient satisfaction ratings:

- The median rating is greater than a four on a five-point scale, indicating that patients were highly satisfied with their hospital encounters.

**Table 12**  
**Average Patient Satisfaction Ratings**

<b>Number of Hospitals Reporting</b>	<b>Median Rating</b>	<b>Highest Quartile Boundary Rating</b>	<b>Minimum Rating</b>	<b>Maximum Rating</b>
27	4.36	4.47	2.30	4.90

Table 13 reports changes from 2003 to 2004:

- Satisfaction ratings decreased slightly from 2004.
- However, highest level of satisfaction and average satisfaction have increased since 2003.

**Table 13**  
**Change in Patient Satisfaction Ratings**

	<b>2003 Median</b>	<b>2004 Median</b>	<b>2005 Median</b>	<b>Percent Change 2004-2005</b>	<b>Net Change 2003-2005</b>	<b>Percent Change 2003-2005</b>
Highest Level Satisfaction	56.85	62.50	62.00	↓ -80	↑ 5.15	↑ 9.06
Satisfaction With Care	NA	62.65	60.29	↓ -3.77	NA	NA
Average Satisfaction	4.30	4.41	4.36	↓ -1.13	↑ 0.36	↑ 1.39

NA Data was not collected in 2003 so comparisons are not available.

## ***Staff Training and Development***

The indicators of Staff Training and Development selected by the Work Environment Workgroup were: training hours, ethnic distribution, and gender distribution. The Staff Training and Development dimension refers to hospitals' strong commitment to lifelong learning for their employees. This includes supporting career development, developing leaders internally, and providing training that supports diversity among staff. Training uses cutting edge technology and includes programs developed in concert with local academic institutions. It is expected that leaders will encourage, mentor and develop minority ethnic and non-tradition gender group staff so they progress in their careers and remain in the workforce.

### **Training Hours and Programs**

Hospitals reported annual employee training data between 10/1/2004 and 9/30/2005. Internal training program hours were reported for all employees and RNs only. "Internal training programs" are defined as those provided in-house to staff. Internal training hours per employee were calculated by dividing the total training hours reported for each group by the total headcount (full-time and part-time) of that group on 9/30/2005. Percent of internal training hours conducted using computers was calculated by dividing total internal training hours by the number of hours provided using computers. Percent of internal training hours devoted to supervisory/management training was calculated by dividing all employee total training hours by the number of training hours provided to supervisors/managers. Training hours per supervisory/management employee was calculated by dividing the number of all supervisory/management training hours by the number of supervisors and managers.

Table 14 shows average employee training hours per employee:

- Less than half the participating hospitals were able to provide data on all employee, RN and management internal training hours.
- Nurses had 25% more median internal training hours than all employees and managers.
- The highest quartile data show that some hospitals provided a very large number of internal training hours to RNs during this time period.

**Table 14**  
**Annual Employee Training Hours Per Employee**

	<b>Number of Hospitals Reporting</b>	<b>Median Hours</b>	<b>Highest Quartile Boundary Hours</b>	<b>Minimum Hours</b>	<b>Maximum Hours</b>
<b>All Employees</b>					
Internal Hours Per Employee	18	16.67	26.43	.02	100.70
Supervisory/ Management Hours per Supervisor/Manager	18	15.96	49.00	1.00	80.38
<b>RN</b>					
Internal Hours Per Employee	19	21.00	56.00	0.00	165.00

Table 15 shows the change in internal and external training hours from 2003 to 2005:

- Compared to 2003, training hours have increased for all employees but decreased for RNs.
- The number of reported supervisory and management training hours have increased almost 300% since 2004.

**Table 15**  
**Change in Annual Employee Training Hours Per Employee**

	<b>2003 Median Hours</b>	<b>2004 Median Hours</b>	<b>2005 Median Hours</b>	<b>Percent Change 2004-2005</b>	<b>Net Change 2003-2005</b>	<b>Percent Change 2003-2005</b>
<b>All Employees</b>						
Internal Hours Per Employee	10.35	15.75	16.67	↑ 5.84	↑ 6.32	↑ 61.06
Supervisory/ Management Hours Per Supervisor/ Manager	NA	4.00	15.96	↑ 299.00	NA	NA
<b>RN</b>						
Internal Hours Per Employee	45.18	35.00	21.00	↓ - 40.00	↓ -24.18	↓ -53.52

Table 16 shows specialty training hours:

- Among the twelve reporting hospitals, 12% of training hours were provided using computers.
- Twenty hospitals reported that nearly 12% of internal training hours were devoted to supervisory and manager training.
- Minimum and maximum hours show the huge range of hours devoted to computer or supervisory/management training.

**Table 16**  
**Percentage of Specialty Internal Training Hours**

	<b>Number of Hospitals Reporting</b>	<b>Median Percentage</b>	<b>Highest Quartile Boundary Percentage</b>	<b>Minimum Percentage</b>	<b>Maximum Percentage</b>
Percent Computer Training Hours	17	12.22	39.33	0.00	78.27
Percent Supervisory/Management Training Hours	20	11.63	29.11	0.00	100.00

Table 17 shows the percentage of computer and supervisory/ management training hours from 2004 to 2005:

- The percentage of training hours presented using computer-based methods has changed very little.
- The percentage of reported supervisory and management training hours has increased almost 200% since 2004.

**Table 17**  
**Change in Percentage of Specialty Internal Training Hours**

	<b>2004 Median Hours</b>	<b>2005 Median Hours</b>	<b>Net Change 2004-2005</b>	<b>Percent Change 2004-2005</b>
Percent Computer Training Hours	12.00	12.22	↑ .22	↑ 1.83
Percent Supervisory/Management Training Hours	4.00	11.63	↑ 7.63	↑ 190.75

## **Ethnic Distribution**

Table 18 shows the ethnic distribution of RNs and all employees in the 43 participating hospitals as of 9/30/2005:

- For the first time since 2003, the total number of minority RNs is greater than the number of white RNs.
- The ethnic distribution of RNs is less diverse than that all employees and primarily consists of white, black and Asian employees.
- Across all jobs, black and white employees make up two-thirds of the workforce, with Hispanic and Asian employees having less than half the presence.

**Table 18**  
**Ethnic Distribution**

	<b>Hospital Population</b>	<b>Percentage of Total Hospital Population</b>
<b>RN</b>		
White	7,401	49.0
Total Minorities	7,642	50.7
Black	2,669	17.7
Hispanic	1,035	6.9
American Indian	65	.4
Asian	3,081	20.4
Pacific Islander	792	5.3
Information Not Available	41	.3
<b>All Employees</b>		
White	22,111	39.3
Total Minorities	33,994	60.4
Black	16,993	30.2
Hispanic	8,501	15.1
American Indian	276	.5
Asian	6,866	12.2
Pacific Islander	1,358	2.4
Information Not Available	159	.3

Table 19 shows the total RN minorities employed by participating hospitals compared to the total regional RN minorities working in area hospitals (Source: Texas State Board of Nurse Examiners):

- The Year 3 goal that participating hospitals account for 50% of the hospital-employed minority nurses in the region was exceeded, with 80.5% of the region's hospital-employed minority RNs working in hospitals that participated in this survey.
- The number of minority nurses working in the region has increased nearly 12% since 2003, while the number of minority nurses in our sample has dropped 3.8%. However, since 2004 the number of minority nurses in our sample has increased 3.3%.

**Table 19**  
**Hospital-Employed Minority Nurses**

	<b>Number of Minority RNs Employed in Participating Hospitals</b>	<b>Number of Hospital-Employed Minority RNs in the Region</b>	<b>Percentage of Hospital-Employed Minority RNs in Participating Hospitals</b>	<b>Year 1 Goal: Percentage of Hospital-Employed Minority RNs in Participating Hospitals</b>
2003	7,941	8,504	93.4	30.0
2004	7,399	9,488	78.0	40.0
2005	7,642	9,488	80.5	50.0

## Gender Distribution

Table 20 shows the gender distribution of RNs and all employees as of 9/30/2005 for all 43 participating hospitals:

- Over ninety percent of RNs are female, with 77% of all employees female.
- These data show little change from 2003.

**Table 20**  
**Gender Distribution**

	<b>Hospital Population</b>	<b>Percentage of Total Hospital Population for that Group</b>
<b>RN</b>		
Female	14,214	90.7
Male	1,450	9.3
<b>All Employees</b>		
Female	40,399	76.8
Male	12,233	23.2

## ***Environmental Factors***

The Work Environment Workgroup selected twelve measures of Environmental Factors: agency and overtime utilization, staffing mix, patient to RN ratios, one- and three-year turnover rate, one- and three-year retention rate, vacancy rate, tenure, medication error rate, and three infection rates. Positive results from these outcome measures reflect environments that are committed to patient and employee safety. In ideal work environments, decisions about staffing plans and staff workloads are data-driven and reflect work that is designed to be meaningful and rewarding. Accommodations regarding work design, ergonomics, and staffing plans are made for older patient care professionals. When these elements are optimal, the retention of employees is maximized.

### **Agency and Overtime Utilization**

In 2003 agency and overtime usage were calculated using two formulas, one a comparison of usage to productive hours only and the other a comparison of usage to the sum of productive and non-productive hours. Because more hospitals were able to submit data regarding productive hours only, which was the measure preferred by the Work Environment Workgroup, only the productive hours comparison was used in 2004 and 2005. Agency usage was calculated by dividing the total RN agency hours worked by the number of productive hours employed RNs worked. A similar formula was used to calculate overtime utilization. Data was measured annually between 10/01/2004 and 9/30/2005.

Table 21 shows the percentage of agency and overtime usage:

- There is a very large variation in the utilization reported by hospitals, with some hospitals using virtually no agency staff and others using 13% agency nurses.
- Similarly there is a wide range of overtime utilization with some hospitals using less than one percent overtime and others using nearly 15% overtime.
- The median for agency use is much smaller than the median for overtime use, suggesting that across the sample overtime use or another strategy are used more frequently to solve staffing issues, rather than using agency nurses.
- There is a substantial difference between hospitals in the lowest quartile and median hospital usage of overtime and agency nurses.

**Table 21**  
**Agency and Overtime Utilization**

	Number of Hospitals Reporting	Median Percentage	Lowest Quartile Boundary Percentage	Minimum Percentage	Maximum Percentage
<b>Agency Usage</b>	16	1.34	.15	0.00	13.07
<b>Overtime Usage</b>	16	7.38	4.76	.69	14.73

Table 22 shows the change in agency and overtime utilization from 2003 to 2005:

- Agency usage has constantly decreased since 2003, changing a dramatic 78% since 2003.
- In contrast, overtime use constantly increased since 2003, changing a total of 18% since 2003.

**Table 22**  
**Change in Agency and Overtime Utilization**

	2003 Median Percentage	2004 Median Percentage	2005 Median Percentage	Percent Change 2004-2005	Net Change 2003-2005	Percent Change 2003-2005
<b>Agency Usage</b>	6.13	5.5	1.34	↓ -75.64	↓ -4.79	↓ -78.14
<b>Overtime Usage</b>	6.26	6.4	7.38	↑ 15.31	↑ 1.12	↑ 17.89

## Staffing Mix

Staffing mix was derived by comparing the number of hours of productive time for each group of employees (RN, LVN, Patient Care Assistant) to the sum of productive hours for these three employee groups. Hospitals reported annual data, measured between 10/01/2004 and 9/30/2005, including the number of hours of RN productive time, the number of hours of LVN productive time, the number of hours of Patient Care Assistant (PCA) productive time, and the number of total hours of RN/LVN/PCA productive time.

Staffing mix data is shown in Table 23:

- There was a large variation in the staffing mix used by different hospitals, especially evident in the minimum and maximum values.
- Medians and quartile boundaries show that the largest segment of the mix is RNs by a large margin.
- Median ratios show over seven times more RNs than LVNs and three times more RNs than Patient Care Assistants.

**Table 23**  
**Staffing Mix Ratios**

	Number of Hospitals Reporting	Median Ratio	Highest Quartile Boundary Ratio	Minimum Ratio	Maximum Ratio
<b>RN Ratio</b>	29	67.41	75.52	19.48	84.19
<b>LVN Ratio</b>	29	9.26	21.84	0.00	35.29
<b>Patient Care Assistant Ratio</b>	29	18.50	27.99	4.98	45.25

Table 24 shows the change in agency and overtime utilization from 2003 to 2005:

- The data shows that staffing mix has adjusted significantly, with fewer hours of care being provided by LVNs and Patient Care Assistants.
- The ratio of LVNs decreased nearly 36% since 2003, with the largest decrease from 2004 to 2005.
- Since 2004, the ratio of RNs has increased 6%, while the ratio of LVNs and PCAs has decreased more than twice as much.

**Table 24**  
**Change in Staffing Mix Ratios**

	2003 Median	2004 Median	2005 Median	Percent Change 2004-2005	Net Change 2003-2005	Percent Change 2003-2005
<b>RN Ratio</b>	68.92	63.66	67.41	↑ 5.89	↓ -1.51	↓ - 2.19
<b>LVN Ratio</b>	14.43	13.08	9.26	↓ -29.20	↓ - 5.17	↓ - 35.83
<b>Patient Care Assistant Ratio</b>	20.31	21.84	18.50	↓ - 15.29	↓ -1.81	↓ - 8.91

### **Patient to RN Ratios**

Hospitals reported patient nursing care hours per patient day (HPPD). These are direct hours of nursing care that are patient-related, including nursing activities that occur away from the patient (e.g., care coordination, documentation time, treatment planning). This does not include indirect hours, nonproductive time, or all paid hours (e.g., vacation, sick time, orientation, education leave). It also does not include committee time if another direct care provider replaces the staff person. Because data was not collected using this

formula in 2003 and 2004, there cannot be a comparison to earlier years. Hospitals were asked to calculate HPPD using the following formula:

$$\text{HPPD} = \frac{\text{Total number of direct RN nursing care hours}}{\text{Patient/resident/client census for the same 24 hours}}$$

Table 25 presents patient to RN ratios for ICU and medical units:

- As expected, greater HPPD are reported for ICU compared to medical units although the minimum and maximum ratios show that at least one hospital's ICU HPPD is nearly the same as the median medical unit HPPD.
- Median HPPD show that the median for medical units is half the number of HPPD as compared to ICU units.

**Table 25**  
**Patient to RN Ratios**

	Number of Hospitals Reporting	Median Ratio	Lowest Quartile Boundary Ratio	Minimum Ratio	Maximum Ratio
<b>ICU RNS</b>	14	13.61	17.65	3.00	20.00
<b>Medical Units RNs</b>	17	6.39	8.75	2.21	10.46

## Turnover Rate

Turnover data was reported for actions taking place from 10/01/2004 to 9/30/2005. Hospitals reported data only for hospital employees, full-time and part-time, not including research entities, academic organizations, or other subsidiary organizations. They excluded contract or agency staff members not on the hospital's payroll. Hospitals reported headcounts at the beginning and end of the year, rather than FTEs. "Headcount" refers to the number of individuals (full-time and part-time) on the hospital's payroll. "Terminations" refers to the number of individuals (full-time and part-time) deleted from the hospital's payroll for any reason (voluntary or involuntary) including transfers to another hospital within a multi-hospital system. The turnover formula used was:

$$\text{Turnover} = \frac{\text{Number of terminations}}{\text{Average headcount}}$$

Table 26 shows turnover data:

- In general, there are enormous differences in turnover among hospitals as evidenced by the minimum and maximum turnover rates.
- Median full-time turnover rates for all employees, RNs, and other licensed staff were similar.

- Median part-time staff turnover was nearly twice the full-time staff rate for all employees and other licensed staff.
- Median full-time and part-time turnover for NP/PA's and pharmacists were zero or very low.

**Table 26**  
**Turnover**

	Number of Hospitals Reporting	Median Rate	Lowest Quartile Boundary Rate	Minimum Rate	Maximum Rate
<b>All Employee</b>					
<b>Full-time</b>	35	17.22	14.01	10.58	42.48
<b>Part-time</b>	33	32.48	19.28	5.26	122.70
<b>RN</b>					
<b>Full-time</b>	39	14.26	9.66	2.78	50.60
<b>Part-time</b>	34	20.70	12.61	0.00	55.10
<b>NP/PA</b>					
<b>Full-time</b>	15	0.00	0.00	0.00	122.22
<b>Part-time</b>	8	0.00	0.00	0.00	100.00
<b>Pharmacist</b>					
<b>Full-time</b>	31	1.37	0.00	0.00	80.00
<b>Part-time</b>	23	0.00	0.00	0.00	100.00
<b>Other Licensed or Certified Staff</b>					
<b>Full-time</b>	18	16.62	11.84	9.75	33.63
<b>Part-time</b>	17	30.77	19.08	0.00	252.25

Table 27 displays the changes in full-time turnover since the baseline survey in 2002. Data from the 2002 Gulf Coast Hospitals Regional Vacancy and Turnover Study is provided for comparison. For this report, median rates were calculated in the same way as used in the 2003 and 2004 surveys. The sample included full-time and part-time staff and therefore should be compared to full-time data in 2003 and 2004. Note: Originally the data published in the 2002 study consisted of mean (rather than median) turnover rates, calculated using the same formula listed above. No comparison is available for NP/PAs since this is the first year they have been included in the survey.

Table 27 shows:

- In general, median turnover decreased dramatically since 2002 for all staff categories.
- Since 2003, turnover decreased for RNs, pharmacists, and other licensed staff.

- Other licensed staff and all employee turnover increased from 2004 to 2005.
- The results greatly exceed the Year 3 goal for RNs: 10% improvement in RN turnover for 65% of all participating hospitals since 2002.

**Table 27**  
**Change in Turnover from 2002 – 2005**

	<b>2002 Median</b>	<b>2003 Median Full- Time</b>	<b>2004 Median Full- Time</b>	<b>2005 Median Full- Time</b>	<b>Percent Change 2004- 2005</b>	<b>Net Change 2002- 2005</b>	<b>Percent Change 2002- 2005</b>
<b>All Participating Hospitals</b>							
<b>All Employees</b>	25.88	14.61	15.35	17.22	↑ 12.18	↓ - 8.66	↓ -33.46
<b>RNs</b>	23.38	14.78	14.56	14.26	↓ - 2.06	↓ -9.12	↓ -39.01
<b>Pharmacists</b>	12.50	17.39	5.88	1.37	↓ - 76.70	↓ - 11.13	↓ -89.04
<b>Other Licensed or Certified Staff</b>	21.76	17.06	13.44	16.62	↑ 23.66	↓ -5.14	↓ -23.62

### Three-Year Turnover Rate

Three-year turnover data was reported for actions taking place from 10/01/2002 to 9/30/2005. Hospitals were asked to report data following the same guidelines as described for turnover above. The three-year turnover formula used was:

$$\text{Three-Year Turnover} = \frac{\text{Number of terminations during the past three years}}{\text{Average headcount across those years}}$$

Three-year turnover data are shown in Table 28:

- In general, there are enormous differences in turnover as evidenced by the minimum and maximum turnover rates.
- Some hospitals experienced rates equivalent to replacing all staff one or two times during the three-year period.
- Generally, median turnover rates are very high, with the rates for all full-time employees and RNs near 50%.
- Median turnover rates for part-time staff are substantially larger than for full-time staff, except for NP/PAs.

**Table 28**  
**Three-Year Turnover**

	<b>Number of Hospitals Reporting</b>	<b>Median Rate</b>	<b>Lowest Quartile Boundary Rate</b>	<b>Minimum Rate</b>	<b>Maximum Rate</b>
<b>All Employee</b>					
<b>Full-time</b>	27	48.92	34.53	4.00	126.54
<b>Part-time</b>	25	86.67	59.32	21.43	294.51
<b>RN</b>					
<b>Full-time</b>	27	46.58	29.33	5.63	90.21
<b>Part-time</b>	26	65.18	30.95	0.00	446.15
<b>NP/PA</b>					
<b>Full-time</b>	11	0.00	0.00	0.00	147.83
<b>Part-time</b>	8	0.00	0.00	0.00	200.00
<b>Pharmacist</b>					
<b>Full-time</b>	22	25.00	8.85	0.00	126.32
<b>Part-time</b>	18	58.34	0.00	0.00	212.50
<b>Other Licensed or Certified Staff</b>					
<b>Full-time</b>	12	42.97	36.39	28.51	74.78
<b>Part-time</b>	11	116.44	59.19	26.09	200.00

Table 29 shows the change in three-year turnover for full-time staff from 2003 to 2005:

- Three-year turnover decreased for all staff categories except other licensed staff from 2003 to 2005.
- The largest decrease was for pharmacists.

**Table 29**  
**Change in Three-Year Turnover**

	<b>2003 Median Full-Time</b>	<b>2004 Median Full-Time</b>	<b>2005 Median Full-Time</b>	<b>Percent Change 2004-2005</b>	<b>Net Change 2003-2005</b>	<b>Percent Change 2003-2005</b>
<b>All Participating Hospitals</b>						
<b>All Employees</b>	52.53	49.89	48.92	↓ -1.94	↓ - 3.61	↓ -6.87
<b>RNs</b>	48.72	52.75	46.58	↓ -11.70	↓ -2.14	↓ -4.39
<b>Pharmacists</b>	40.00	33.33	25.00	↓ -24.99	↓ -15.00	↓ -37.50
<b>Other Licensed/ Certified Staff</b>	42.67	41.22	42.97	↑ 4.25	↑ 0.30	↑ .70

## Retention Rate

Retention data was submitted for the time period 10/01/2004 through 9/30/2005. Hospitals reported data only for hospital employees, full-time and part-time, not including research entities, academic organizations, or other subsidiary organizations. Hospitals excluded contract or agency staff members not on the hospital's payroll. They reported headcounts at the beginning and end of the year, rather than FTEs. "Headcount" refers to the number of individuals (full-time and part-time) on the hospital's payroll. Hospitals reported the total number of employees on staff for the time period beginning 10/01/2004 and the total number of those same employees who remained on staff at 9/30/2005. For example, if a hospital reported 100 nurses on staff as of 10/01/04 and 80 of those same nurses remained on staff on 9/30/2005, the retention rate would be calculated as 80% using the formula:

$$\text{Retention} = \frac{\text{Number of employees remaining on 9/30/2005}}{\text{Headcount 10/01/2004}}$$

Comparison data is not available for 2003 because the data submitted on retention was not reliable in 2003.

Table 30 shows retention data:

- In general, there are enormous differences in retention rates among hospitals as evidenced by the minimum and maximum turnover rates.
- Median retention rates for all full-time categories of staff were in the eighty to ninety percent range.
- However, retention rates for pharmacists were much higher.

**Table 30  
Retention**

	Number of Hospitals Reporting	Median Rate	Highest Quartile Boundary Rate	Minimum Rate	Maximum Rate
<b>All Employee</b>					
<b>Full-time</b>	21	83.40	87.40	70.21	95.55
<b>Part-time</b>	20	74.82	84.21	16.67	97.59
<b>RN</b>					
<b>Full-time</b>	23	84.38	89.51	41.67	94.06
<b>Part-time</b>	22	78.02	89.49	0.00	100.00
<b>NP/PA</b>					
<b>Full-time</b>	9	89.66	100.00	50.00	100.00
<b>Part-time</b>	4	100.00	100.00	92.31	100.00
<b>Pharmacist</b>					
<b>Full-time</b>	21	98.74	100.00	50.00	100.00
<b>Part-time</b>	12	100.00	100.00	50.00	100.00
<b>Other Licensed or Certified Staff</b>					
<b>Full-time</b>	12	85.57	89.12	46.40	98.77
<b>Part-time</b>	11	69.05	80.42	44.12	100.00

NA Median and quartile cannot be calculated due to the small sample size.

Although comparison data was not available for 2003, Table 31 shows the change in retention for full-time staff from 2004 to 2005:

- Retention rates have not changed much for all employees and RNs.
- The retention rate for pharmacists has risen 16%.
- The retention rate for other licensed or certified staff has decreased by 10%.

**Table 31  
Change in Retention from 2003 – 2005**

	2004 Median Full-Time	2005 Median Full-Time	Net Change 2004-2005	Percent Change 2004-2005
<b>All Participating Hospitals</b>				
<b>All Employees</b>	82.85	83.58	↑ .73	↑ .88
<b>RNs</b>	83.02	84.38	↑ 1.36	↑ 1.64
<b>Pharmacists</b>	85.33	98.74	↑ 13.41	↑ 15.72
<b>Other Licensed or Certified Staff</b>	95.35	85.57	↓ -9.78	↓ -10.26

### Three-Year Retention Rate

Three-year retention data was reported for actions taking place from 10/01/2002 to 9/30/2005. Hospitals reported data following the same guidelines as described for retention above. The three-year retention formula was:

$$\text{Three-Year Retention} = \frac{\text{Number of employees remaining for three years on 9/30/2005}}{\text{Headcount on 10/01/2002}}$$

Three-year retention data are shown in Table 32:

- The range of three-year retention rates is very large as shown by minimum and maximum values.
- Generally, the median three-year retention rates are similar among full-time staff categories at near mid-seventy percent ranges, except for NP/PAs, which is higher.
- Part-time staff retention rates are in the fifty percent ranges except for other licensed and certified staff, which is lower.

**Table 32**  
**Three-Year Retention**

	Number of Hospitals Reporting	Median Rate	Highest Quartile Boundary Rate	Minimum Rate	Maximum Rate
<b>All Employee</b>					
<b>Full-time</b>	19	75.33	81.91	55.06	96.08
<b>Part-time</b>	16	53.82	63.14	34.88	81.13
<b>RN</b>					
<b>Full-time</b>	19	71.57	79.36	28.57	92.86
<b>Part-time</b>	17	57.14	64.86	25.00	77.78
<b>NP/PA</b>					
<b>Full-time</b>	6	81.28	97.62	0.00	100.00
<b>Part-time</b>	3	58.33	NA	30.77	100.00
<b>Pharmacist</b>					
<b>Full-time</b>	15	74.67	94.45	33.33	100.00
<b>Part-time</b>	11	54.55	100.00	0.00	100.00
<b>Other Licensed or Certified Staff</b>					
<b>Full-time</b>	10	69.76	74.24	40.70	76.52
<b>Part-time</b>	9	42.31	48.75	0.00	55.56

NA Quartile cannot be calculated due to the small sample size.

Although comparison data was not available for 2003, Table 33 shows the change in three-year retention from 2004 to 2005:

- Three-year retention has increased for every category since 2004.
- The increase is greatest for all employees (with a 20% increase) and for RNs (with a 9% increase).

**Table 33**  
**Change in Three-Year Retention**

	2004 Median Full-Time	2005 Median Full-Time	Net Change 2004-2005	Percent Change 2004-2005
<b>All Participating Hospitals</b>				
<b>All Employees</b>	62.45	75.33	↑ 12.88	↑ 20.62
<b>RNs</b>	65.47	71.57	↑ 6.10	↑ 9.17
<b>Pharmacists</b>	73.44	74.67	↑ 1.23	↑ 1.67
<b>Other Licensed or Certified Staff</b>	66.87	69.76	↑ 2.89	↑ 4.32

## Vacancy Rate

Tables 34 and 35 show vacancy data at 9/30/2005. Hospitals reported data only for hospital employees, full-time and part-time, not including research entities, academic organizations, or other subsidiary organizations. Hospitals excluded contract or agency staff members not on the hospital's payroll. They reported headcounts at the beginning and end of the year, rather than FTEs. "Headcount" refers to the number of individuals (full-time and part-time) on the hospital's payroll. Vacancy rate was calculated using two formulas in order to compare number of vacancies in budgeted positions to the number of budgeted positions and to headcount. The comparison to budgeted positions is preferred, but since some hospitals do not have this data available, headcount was also used. The vacancy rate formula used in Table 32 is:

$$\text{Vacancy Rate} = \frac{\text{Number of vacancies in budgeted positions}}{\text{Number of budgeted positions}}$$

Table 34 shows the vacancy rates calculated using budgeted positions:

- In general, there are large differences in the vacancy rates among hospitals as evidenced by the minimum and maximum rates.
- RNs had the highest vacancy rate among all full-time staff categories.
- Full-time and part-time NP/PA and pharmacist vacancy rates are very low, at 0%.
- The vacancy rate for part-time staff is higher than the full-time rate for all employees. However, the vacancy rates for part-time nurses and other licensed staff are lower than the full-time rates.

**Table 34**  
**Vacancy Rate Calculated Using Budgeted Positions**

	Hospitals Reporting	Median Rate	Lowest Quartile	Minimum Rate	Maximum Rate
<b>All Employee</b>					
<b>Full-time</b>	28	3.96	2.75	1.37	13.80
<b>Part-time</b>	24	4.49	1.01	0.00	32.19
<b>RN</b>					
<b>Full-time</b>	32	6.07	2.69	0.00	16.67
<b>Part-time</b>	27	3.75	0.00	0.00	54.55
<b>NP/PA</b>					
<b>Full-time</b>	13	0.00	0.00	0.00	50.00
<b>Part-time</b>	7	0.00	0.00	0.00	20.00
<b>Pharmacist</b>					
<b>Full-time</b>	27	0.00	0.00	0.00	50.00
<b>Part-time</b>	20	0.00	0.00	0.00	50.00
<b>Other Licensed Staff</b>					
<b>Full-time</b>	24	4.36	2.11	0.00	18.18
<b>Part-time</b>	21	3.85	0.00	0.00	50.00

The formula used to calculate vacancy rate using headcount is:

$$\text{Vacancy Rate} = \frac{\text{Number of vacancies in budgeted positions}}{\text{Headcount}}$$

Table 35 shows the vacancy rate calculated using headcount:

- As in Table 34, the vacancy rate for full-time RNs is the highest.
- Generally, vacancy rates for staff categories are similar to but slightly higher than those calculated using budgeted positions, with the exception of other licensed staff, which has lower rates.

**Table 35**  
**Vacancy Rate Calculated Using Headcount**

	Hospitals Reporting	Median Rate	Lowest Quartile	Minimum Rate	Maximum Rate
<b>All Employee</b>					
<b>Full-time</b>	28	4.17	2.57	1.36	16.10
<b>Part-time</b>	25	4.72	1.72	0.00	59.08
<b>RN</b>					
<b>Full-time</b>	33	6.90	2.87	0.00	22.22
<b>Part-time</b>	29	4.27	0.00	0.00	54.55
<b>NP/PA</b>					
<b>Full-time</b>	13	0.00	0.00	0.00	50.00
<b>Part-time</b>	7	0.00	0.00	0.00	100.00
<b>Pharmacist</b>					
<b>Full-time</b>	27	0.00	0.00	0.00	100.00
<b>Part-time</b>	20	0.00	0.00	0.00	33.33
<b>Other Licensed Staff</b>					
<b>Full-time</b>	17	2.58	1.23	0.00	25.00
<b>Part-time</b>	18	1.72	0.00	0.00	100.00

Table 36 shows the changes in vacancy rates since the baseline survey in 2002. Data from the 2002 Gulf Coast Hospitals Regional Vacancy and Turnover Study is also provided for comparison. Comparisons are only made with 2002 using formula 2 (headcount) since both used headcount in their calculations. For this project, median rates were calculated in the same way as used in the 2003, 2004, and 2005 surveys. The sample included full-time and part-time staff and therefore should be compared to full-time data in 2003, 2004, and 2005. Note: Originally the data published in the 2002 study consisted of mean (rather than median) vacancy rates, calculated using the same formula listed above.

Table 36 shows vacancy rate changes (formula that using headcount):

- Median vacancy rates decreased dramatically since 2002 for all staff categories except for pharmacists.
- Since 2004, vacancy rates decreased for all employees and RNs.
- Pharmacist vacancy rates remained at zero, where it was in 2002 and 2004.
- The results greatly exceed the Year 2 goal for RNs: 10% improvement in RN turnover for 65% of all participating hospitals since 2002.

**Table 36**  
**Change in Vacancy Rates – Headcount**

	2002 Median	2003 Median Full-Time	2004 Median Full-Time	2005 Median Full-Time	Percent Change 2004- 2005	Net Change 2002- 2005	Percent Change 2002- 2005
<b>All Participating Hospitals</b>							
<b>All Employees</b>	5.67	4.02	3.75	4.17	↑ 11.20	↓ -1.50	↓ -26.46
<b>RNs</b>	10.93	7.02	5.79	6.90	↑ 19.17	↓ -4.03	↓ -36.87
<b>Pharmacists</b>	0.00	9.09	0.00	0.00	0.00	0.00	0.00
<b>Other Licensed/ Certified Staff</b>	6.64	4.48	3.54	1.23	↓ -65.25	↓ -5.41	↓ -81.48

Table 37 shows the changes in vacancy rates since 2003 using the budgeted positions calculations:

- Percent changes in 2004 and 2005 are different from Table 36, being much smaller.
- Increases or decreases from year to year are similar to Table 36 with the exception of other licensed staff because that vacancy rate increased rather than decreased.

**Table 37**  
**Change in Vacancy Rates – Budgeted Positions**

	2003 Median Full-Time	2004 Median Full-Time	2005 Median Full-Time	Percent Change 2004- 2005	Net Change 2003- 2005	Percent Change 2003-2005
<b>All Participating Hospitals</b>						
<b>All Employees</b>	3.87	3.61	3.96	↑ 9.69	↓ -.09	↓ -2.33
<b>RNs</b>	6.08	5.55	6.07	↑ 9.37	↓ -.01	↓ -.16
<b>Pharmacists</b>	14.29	0.00	0.00	0.00	↓ -14.29	↓ -100.00
<b>Other Licensed/ Certified Staff</b>	4.41	3.63	4.36	↑ 20.11	↓ -.05	↓ -1.13

## Tenure

Tenure data was measured as of 9/30/2005. Hospitals were asked to report total years of service for all employees and RNs. Tenure was calculated by dividing total years of service by number of employees in that category as of 9/30/2005. Therefore, the tenure

rate reported is the average tenure for all employees and for RNs. Comparison data is not available for 2003 because tenure data was not collected until the 2004 survey.

Table 38 shows average tenure rates:

- In general, there are substantial differences in average tenure rates among hospitals as evidenced by the minimum and maximum tenure rates.
- The median tenure rates for all employees and nurses were similar, at approximately 6 years, with RN tenure slightly lower.

**Table 38**  
**Average Tenure Rate**

	Hospitals Reporting	Median Rate	Highest Quartile	Minimum Rate	Maximum Rate
<b>All Employee</b>	25	6.11	7.44	2.31	14.79
<b>RN</b>	25	5.88	6.60	1.72	13.05

Table 39 shows changes in tenure since 2004:

- Average tenure decreased for both all employees and RNs.
- RN tenure experienced a larger decrease.

**Table 39**  
**Change in Tenure Rates**

	2004 Median	2005 Median	Net Change 2004-2005	Percent Change 2004-2005
<b>All Employee</b>	6.51	6.11	↓ -.40	↓ -6.14
<b>RN</b>	6.63	5.88	↓ -.75	↓ -11.31

## Average Age

Average age data was measured as of 9/30/2005. Hospitals were asked to calculate the average ages of all employees and RNs. Comparison data is not available for 2003 or 2004 because average age was not measured in those surveys.

Table 40 shows average age rates:

- In general, there are substantial differences in average age rates among hospitals as evidenced by the minimum and maximum turnover rates, especially for RN males.

- The median age rates for all employees and nurses were similar, at 40-43 years.
- The lowest quartile shows that the age range distribution is primarily over 40, since only 25% of the hospitals had average ages at that level or lower.
- Maximum rates show that some hospitals have average ages near retirement ages.

**Table 40**  
**Average Age Rate**

	Hospitals Reporting	Median Rate	Lowest Quartile	Minimum Rate	Maximum Rate
<b>All Employee</b>					
Female	30	43	42	32	50
Male	30	42	40	34	50
<b>RN</b>					
Female	35	43	41.5	36	52
Male	29	40	44	30	62

### Medication Errors and Infection Rates

For measures of patient health outcomes, hospitals reported medication error rate and percentage of ICU infections, ventilator pneumonias, and surgical site infections. Hospitals were asked to use prescribed formulas to calculate these measures for data collected between 10/1/2004 and 9/30/2005. The formulas used were as follows:

$$\text{Medication Error Rate} = \frac{\text{Number of medication errors}}{\text{Number of total medication doses}}$$

$$\text{ICU Infection Rate} = \frac{\text{Number of ICU central line infections}}{\text{Number of total ICU central line days}}$$

$$\text{Ventilator Pneumonia Rate} = \frac{\text{Number of hospital acquired ventilator pneumonias}}{\text{Number of ventilator days}}$$

$$\text{Surgical Site Infection Rate} = \frac{\text{Number of Post-Op wound infections}}{\text{Number of surgical cases}}$$

Table 41 shows:

- Forty-four percent of the hospitals reported medication error rates, 35% reported ICU infection rates, and 44% reported ventilator pneumonia rates, an improvement in response rates over 2004. However, only 25% reported surgical site infection rates, down 35% from 2004.

- The medication error rate and infection rates were highly variable among hospitals.
- The median for surgical site infection rate was the highest.

**Table 41**  
**Medication Error and Infection Rates**

	<b>Number of Hospitals Reporting</b>	<b>Median Rate</b>	<b>Lowest Quartile Boundary Rate</b>	<b>Minimum Rate</b>	<b>Maximum Rate</b>
<b>Medication Error</b>	19	.0020	.000229	.00001	11.580
<b>ICU Infection</b>	15	.0064	.000889	0.00	12.421
<b>Ventilator Pneumonia</b>	19	.0107	0.00	0.00	16.951
<b>Surgical Site Infection</b>	11	.2700	.002648	.00060	2.000

Table 42 shows the changes in medication error and infection rates from 2003 to 2005:

- Medication error and ICU infection rate decreased nearly 100% since 2003.
- All rates except medication error decreased since 2004.

**Table 42**  
**Changes in Medication Error and Infection Rates**

	<b>2003 Median</b>	<b>2004 Median</b>	<b>2005 Median</b>	<b>Percent Change 2004-2005</b>	<b>Net Change 2003-2005</b>	<b>Percent Change 2003-2005</b>
<b>Medication Error</b>	.06	.0005	.0020	↑ 300.00	↓ -.058	↓ -96.67
<b>ICU Infection</b>	1.28	.6000	.0064	↓ - 98.93	↓ 1.27	↓ -99.50
<b>Ventilator Pneumonia</b>	NA	.0390	.0107	↓ -72.56	NA	NA
<b>Surgical Site Infection</b>	NA	.5000	.2700	↓ -46.00	NA	NA

NA Data is not available for 2003 since it was not collected until 2004.

## *Economic Considerations*

The Work Environment Workgroup selected one measure to reflect Economic Considerations: operating margin. This outcome measure was selected because hospitals must have solid financial performance in order to compensate patient care professionals well. In the ideal work environment, compensation is based on demonstrated core competencies. Of course, excellent financial performance is also a result of having an ideal work environment in general.

### **Financial Results**

Hospitals reported their operating margin as an indicator of their financial outcomes for the most recent year-end data. Hospitals were asked to use the formula:

$$\text{Operating Margin} = \frac{\text{Net revenue minus net expenses}}{\text{Net revenue}}$$

Revenue was to be exclusive of investment, interest, and other non-patient care income.

Table 43 shows the operating margins reported:

- Twenty-five hospitals, 58% of the participating hospitals, reported their margins.
- Hospitals experienced a wide range of operating margins, from -15% to 34%.
- The highest quartile performers achieved more than three times the median operating margin.

**Table 43**  
**Operating Margin**

<b>Number of Hospitals Reporting</b>	<b>Median</b>	<b>Highest Quartile Boundary</b>	<b>Minimum</b>	<b>Maximum</b>
25	3.62	13.47	-15.08	34.02

Data was reported on a calendar year basis (4), an academic year basis (6), or a slightly shortened yearly cycle (17). Inability to report full year data may have been related to the hurricanes occurring in August and September of 2005.

Table 44 shows the changes in operating margin from 2003 to 2005:

- Operating margin decreased substantially from 2003 to 2005, nearly a 34% change in performance.
- However, operating margin increased 10% from 2004 to 2005.

**Table 44**  
**Change in Operating Margin**

Median 2003	Median 2004	Median 2005	Percent Change 2004-2005	Net Change 2003-2005	Percent Change 2003-2005
5.45	3.28	3.62	↑ 10.37	↓ -1.83	↓ -33.59

### ***High Performer Results***

As hospitals completed the survey, their data was analyzed to determine which hospitals qualified as high performers. The survey was designed to calculate (during data entry) the 2005 turnover rate (for full-time all employees and RNs), headcount and budgeted positions vacancy rates (for full-time all employees and RNs), and RN staff satisfaction at the highest level of satisfaction. If the data entered on any of these measures met or exceeded a score equal or better than the highest quartile performance (the threshold) established by the 2004 survey, then the hospital was identified as a high performer and the indicator was flagged.

Twenty-six hospitals or 60% of the hospitals met the threshold on at least one measure and were designated as high performers. This is a large increase over 2004, when only 39% of hospitals met these criteria.

Table 45 shows the number of hospitals meeting the thresholds on the seven measures:

- No hospital met more than five of the seven measures' thresholds.
- Most hospitals met just one of the thresholds.

**Table 45**  
**Number of Hospitals Meeting Thresholds**

Number of Hospitals	Number of Thresholds Met
12	1
6	2
2	3
4	4
2	5

Table 46 shows the number of hospitals that met the threshold on each measure:

- A similar number of hospitals met the thresholds on measures for RNs and all employees.
- Although the same number of hospitals met the threshold on the RN vacancy rate measures, the actual hospitals differ slightly.

**Table 46**  
**Hospitals Meeting Threshold on Each Measure**

Measure	Number of High Performer Hospitals Meeting Threshold	Percent of High Performer Hospitals Meeting Threshold
<b>Turnover All Employees</b>	4	15.4
<b>Turnover RNs</b>	11	42.3
<b>Vacancy Rate (Budgeted Positions) All Employees</b>	9	34.6
<b>Vacancy Rate (Headcount) All Employees</b>	9	34.6
<b>Vacancy Rate (Budgeted Positions) RNs</b>	9	34.6
<b>Vacancy Rate (Headcount) RNs</b>	8	30.8
<b>RN Highest Level of Satisfaction</b>	4	15.4

In February 2006, all hospitals were sent a Work Environment Practice Survey using Zoomerang or follow-up email, which asked them to share recommended practices and complete a question about the reasons for their successful performance. Executives were asked to select or write in the top three initiatives that they believe were the keys to their hospital's success regarding the threshold measures. Hospitals were not told if they were high performers. This is a change from the method used in 2004, in which only high performing hospitals were asked this question. This change was made to determine if there was agreement among all hospitals about the reasons for their success or if there were differences in reasons between high performing and non-high performing hospitals. This question is listed in the Practice Survey in Appendix D.

Nineteen hospitals (73.1%) that met the high performer threshold (on at least one measure) completed the question. Ten hospitals (58.8%) that did not meet the high performer threshold (on at least one measure) also completed the question.

Of the nineteen high performing hospitals that completed the question, all hospitals except one listed three initiatives; the other listed two. Table 47 shows that almost all of the initiatives listed in the question were selected by at least one high performing hospital (the initiatives are listed in order of frequency of selection):

- The most commonly selected initiative emphasizes management development. In contrast, the 2004 highest selected initiative concerned senior management emphasis on professional behavior, listed third in 2005.
- There is a significant frequency break between the first initiative and the second.
- In addition to these selected initiatives, one hospital wrote-in "teamwork."

**Table 47**  
**Initiatives Selected by Top Performing Hospitals**

<b>Initiatives</b>	<b>Number (%) of Times Initiative Was Selected</b>
<b>Management development is provided.</b>	11 (20%)
<b>An executive-led initiative is stimulating significant culture improvements.</b>	8 (14%)
<b>Senior management emphasizes professional behavior by employees and physicians.</b>	7 (13%)
<b>Employees are involved in decision-making on their units.</b>	7 (13%)
<b>A fun work atmosphere is created.</b>	5 (9%)
<b>Employee safety is a priority.</b>	3 (5%)
<b>Employee career development is supported.</b>	3 (5%)
<b>Employees use the latest technology to learn and to treat patients.</b>	3 (5%)
<b>Non-financial recognition programs are implemented for staff.</b>	3 (5%)
<b>Effective physician-employee conflict resolution programs are in place and utilized.</b>	2 (4%)
<b>Compensation includes financial incentives tied specifically to professional behavior.</b>	2 (4%)
<b>Shared decision making is practiced between staff and physicians.</b>	1 (2%)
<b>Employee scheduling supports work life balance</b>	0

Ten of the 17 non-high performing hospitals completed the question. All hospitals listed three initiatives. Table 48 shows that only ten of the initiatives listed in the question were selected by at least one hospital (the initiatives are listed in order of frequency of selection):

- The most commonly selected initiative emphasizes management development. This is the same initiative selected most frequently by high performing hospitals.
- There is a significant frequency break between the first initiative and the second.

**Table 48**  
**Initiatives Selected by Non-Top Performing Hospitals**

<b>Initiatives</b>	<b>Number (%) of Times Initiative Was Selected</b>
<b>Management development is provided.</b>	7 (23%)
<b>A fun work atmosphere is created.</b>	5 (17%)
<b>Employees are involved in decision-making on their units.</b>	4 (13%)
<b>Employee career development is supported.</b>	4 (13%)
<b>Employee scheduling supports work life balance</b>	3 (10%)
<b>Employees use the latest technology to learn and to treat patients.</b>	2 (7%)
<b>Non-financial recognition programs are implemented for staff.</b>	2 (7%)
<b>Senior management emphasizes professional behavior by employees and physicians.</b>	1 (3%)
<b>Employee safety is a priority.</b>	1 (3%)
<b>An executive-led initiative is stimulating significant culture improvements.</b>	1 (3%)
<b>Shared decision making is practiced between staff and physicians.</b>	0
<b>Effective physician-employee conflict resolution programs are in place and utilized.</b>	0
<b>Compensation includes financial incentives tied specifically to professional behavior.</b>	0

Both groups selected the following three initiatives out of their top five initiatives:

- Management development is provided.
- Employees are involved in decision-making on their units.
- A fun work atmosphere is created.

## ***Recommended Practices***

Hospitals were asked to share practices they determined contributed to improving their work environment. Unlike the survey in 2004, recommended practices were solicited from survey contacts using Zoomerang, a web-based survey. Hospitals were asked to answer yes or no that they used innovative practices described by a series of statements that members felt were indicative of ideal work environments. If hospitals were willing to share their practices, they listed the name of their projects and contact persons.

Statements for each dimension of the work environment were created based on the Ideal Work Environment Model created by the Work Environment Workgroup, as well as other current practice ideas generated by the Workgroup. These statements were placed within the appropriate dimension-labeled section of the survey. The survey questions are found in the Practice Survey in Appendix D. Table 49 shows the number of statements placed in each section of the survey.

**Table 49**  
**Recommended Practice Statements for Each Dimension**

<b>Work Environment Dimensions</b>	<b>Number of Statements</b>
<b>Professionalism</b>	4
<b>Interpersonal Communication and Teamwork</b>	4
<b>Staff Training and Development</b>	8
<b>Environmental Factors</b>	5
<b>Economic Considerations</b>	8
<b>Total</b>	29

Hospitals gave more submissions and contacts than had been received in 2004. Table 50 shows the number of recommended practices and contact persons initially submitted by hospitals in response to the survey.

**Table 50**  
**Recommended Practices Initially Submitted by Participating Hospitals**

<b>Work Environment Dimensions</b>	<b>Number of Practices</b>	<b>Number of Contacts</b>
<b>Professionalism</b>	11	16
<b>Interpersonal Communication &amp; Teamwork</b>	15	17
<b>Staff Training &amp; Development</b>	7	14
<b>Environmental Factors</b>	8	11
<b>Economic Considerations</b>	6	7
<b>Total</b>	47	65

As at this point in other years, preparation began for *Go for the Gold*, the annual learning exchange sponsored by the GCHSSC, by asking volunteers to contact hospitals and collect these practices. As this work progressed through March, it became clear that hospital staff were too busy to participate in this work. Many cited hurricane-related preparations, delays in work in progress due to the previous hurricane season, and general overwork. It was decided in March to postpone the learning exchange until December 2006, to allow for increased participation and additional time to submit practices.

**Appendix A**  
**Dimensions of an Ideal Hospital Work Environment**

<b>Professionalism</b>	
Core Values Include Professionalism	The hospital operates with a limited number of core values that include elements of professionalism, at least one of which relates to the treatment of hospital staff. These values permeate the organization from top to bottom.
Board Supports Professionalism	The CEO and board establish policies that support organizational core values, specifically including the professional behavior they expect of all patient care staff, including physicians with hospital privileges.
Senior Leadership Participates in Establishing Professionalism as a Value	The chief executive officer and other senior leaders establish and actively monitor professional behavior related to core values among staff and physicians. These leaders' behavior exemplifies the organization's values, specifically professionalism.
Part of Executives' Pay is Contingent on Professionalism	A part of the chief executive officer's and senior executives' pay is contingent on system-wide improvements in professionalism.
Behavior is Measured and Rewarded Based on Well-Known Professional Standards and Expectations	A code of professional conduct is widely publicized, displayed, well known and accepted by staff throughout the hospital. Statements of expected professional behaviors are included in professional's position descriptions, new employee orientation, and the evaluation system. A clearly communicated system for rewarding examples of professional behavior is in place, along with a process for remediation and sanctions where necessary. Senior leaders measure progress toward identified benchmarks and share status information with all professional staff.
Selection, Evaluation, and Credentialing of Physicians and Staff Incorporate Professionalism	All physicians, professionals, and leadership staff are selected, evaluated, and credentialed using a competency-based model which includes those attributes of professionalism that most directly affect patient outcomes. All professional and leadership staff are evaluated using 360° performance evaluations, which incorporate professionalism. Mechanisms providing immediate and ongoing feedback on professional behavior are used without fear of retaliation. For example, such systems may use praise/early concern cards that list and describe the attributes of outstanding professionalism.
Professionalism is Incorporated into the Organizational Structure	All institutional structures incorporate professional behaviors into their policies and decision-making. Senior leaders, board members, and a representative cross-section of professionals form a Professional Council charged with improving professionalism in staff relationships.

<p><b>Professionalism cont'd</b></p> <p>Team Training Creates an Environment of Professionalism</p> <p>Professionalism is Demonstrated in Medical Error Reporting</p>	<p>Patient care staff and physicians attend a series of joint training programs covering the non-technical aspects of working together as a member of an integrated, professional team.</p> <p>Professional behavior exhibited by staff and physicians includes the timely and blameless recording of all medical errors, and vigorous discussions of ways to prevent such errors in the future.</p>
<p><b>Interpersonal Communications and Teamwork</b></p> <p>Open Environment Facilitates Communication</p> <p>Shared Decision Making is Practiced</p> <p>Communication and Team Behavior Competencies are Demonstrated</p> <p>Hospital is Recognized as One of Best Places to Work in the Region</p>	<p>An open environment supports the free sharing of information, as evidenced by patient care professionals' listening, asking questions, requesting clarification of directions, questioning decisions, and contributing their expertise toward superior patient care and positive outcomes.</p> <p>Patient care professionals, especially nurses, share in decision making regarding patient care without being belittled or ridiculed by staff with more power and greater status and without fear of retaliation.</p> <p>Individually and as a team, all staff (including physicians) demonstrate established, well-known interpersonal communications and team-based behavioral competencies. This multidisciplinary team approach mitigates professional "silos" and assures a systematic, coordinated patient care practice. Education and/or credentialing on communication/professionalism formalize the importance of these competencies to the organization. These behavioral competencies are related to patient care outcomes, not to the preferences, needs, or desires of the patient care professional, ensuring that the system is patient-driven, not provider-driven.</p> <p>Patient care professionals recognize the hospital as one of the best places in the Gulf Coast region to work, specifically because of its team-oriented environment.</p>

<p><b>Staff Training and Development</b></p> <p>A Strong Commitment to Lifelong Learning is Demonstrated</p> <p>Staff Pursuit of Career Development is Supported</p> <p>Career Counseling is Available On-Site</p> <p>Ongoing, Comprehensive Mentoring Programs are Provided</p> <p>Senior Leaders and Managers Receive Ongoing Training</p> <p>Training Supports Diverse Work Environments</p> <p>Training Supports Business Issues</p> <p>Staff Instructors are Provided for Nursing Schools</p> <p>Hospital Collaborates with Providers of Education for Career and Professional Development</p> <p>Cutting Edge Technology is Used for Delivery of Training</p>	<p>Hospital management has made a strong commitment to lifelong learning for all staff, encouraging and financially supporting the professional and personal development of staff, both on and off the job.</p> <p>The hospital provides financial assistance and manager/peer support to encourage staff to pursue career development opportunities.</p> <p>The hospital provides career counseling on-site, including information about well-defined paths to career goals within as well as outside of the hospital and healthcare industry.</p> <p>The hospital provides ongoing and comprehensive mentoring programs for professionals and leaders to foster improved performance, ongoing development, and satisfaction.</p> <p>Senior leaders and managers throughout the organization receive ongoing training to develop their leadership and management skills and establish expected behaviors, especially management training for professional and technical staff in supervisory and management positions.</p> <p>Hospital staff (including physicians with privileges) receive training in managing and working in environments that are increasingly diverse ethnically, racially, and socio-economically.</p> <p>The hospital provides programs to teach staff the knowledge and skills they need to understand and participate in discussions of organizational strategic and operational issues.</p> <p>The hospital provides paid opportunities for qualified staff to teach in area nursing schools or provides financial assistance for nursing schools to hire faculty.</p> <p>The hospital collaborates with providers of education in order to: design knowledge and skill development curricula, which prepare students for patient care careers, and provide professional development opportunities for employees.</p> <p>The hospital uses cutting-edge technology for the design and delivery of staff training and development and provides training in new technologies.</p>
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<b>Environmental Factors</b>	
Staff Regularly Participate in Decision Making	Executives and direct patient care professionals, including nurses, regularly participate in strategic and operational decision making throughout the hospital.
Factors Affecting Retention are Identified	The hospital continually strives to improve its retention of patient care professionals, including nurses and other staff difficult to recruit and retain, by using an independent entity to survey those employees who continue to work at the hospital, as well as those who leave, to determine what factors affect their decisions.
A Safe Work Environment is Created	The hospital creates a safe work environment. For example, the hospital has systems in place for reducing needle stick injuries and back injuries resulting from a lack of ergonomic devices.
Decisions About Staff Workload are Data-Driven	Decisions about staff workloads are driven primarily by data indicating quality of care, cost effective care and patient satisfaction outcomes, which are benchmarked against recognized industry standards.
Schedules Support Balanced Work and Home Life	The hospital supports the principles of balanced work and home life, specifically including staffing and scheduling mechanisms that accommodate the professional and personal needs and preferences of all professional staff, especially nurses. The hospital provides on-site child-care or child-care referral services and stipends for use at nearby child-care centers.
Preceptors are Dedicated	The hospital dedicates experienced nurses to the sole assignment of serving as preceptors/mentors for new nurses for up to 18 months after they are hired.
Work is Designed to be Meaningful and Rewarding	The hospital has designed processes, procedures, and job responsibilities that continually promote a positive work environment and improve patient care outcomes, making work more meaningful and rewarding for nurses and other patient care professionals.
Patients and Staff Have Positive Perceptions of Staff	Patients and staff have positive attitudes toward patient care staff both within their hospital and across the industry as a whole.
Accommodations are Provided for Older Patient Care Professionals	The hospital has taken specific action to make the work environment more accommodating for older patient care professionals, especially nurses. For example, they provide ergonomic equipment, early retirement options that encourage retention, part-time work options, and staffing and workload adjustments.
A Fun Work Atmosphere is Created	Management consciously creates a cheerful, enjoyable, and fun work atmosphere for all staff.
Staff Receive Recognition for Excellent Work	Executives, managers, supervisors, and co-workers recognize staff members' excellent work outcomes, processes, and products. Team and individual accomplishments are celebrated publicly as well as privately.

<b>Economic Considerations</b>	
Total Compensation is High for Point-of-Service Jobs	Compensation and benefits packages are designed to pay patient care professionals well who work at the point-of-service.
Patient Care Total Compensation is Superior to Less Stressful Work	Compensation and benefits packages for patient care professionals are superior to those available in less stressful work environments within and outside of healthcare.
Compensation and Work Environment Create Positive Career Options, Increasing Retention	Compensation and benefits combine with a positive work environment to present desirable career options and improve the retention of professionals.
Compensation is Based on Demonstrated Core Competencies	Compensation is based on the demonstration of core competencies, including the non-technical aspects of professionalism.

**Appendix B**  
**Work Environment Workgroup**

Mark Wallace  
Co-Chair  
President  
Texas Children's Hospital

Susie M. Distefano  
Co-Chair  
Senior Vice President  
Texas Children's Hospital

Donde Batten  
HRSA Grant Research Director  
Batten Consulting

Rachel Caillouet  
Chief Human Resources Officer  
Baylor College of Medicine

Cheryl C. Day  
Director of Women's, Infants', Children's and Behavioral Medicine  
University of Texas Medical Branch

Scott Doak  
Chief Human Resources Officer  
Spring Branch Medical Center

Margaret Eaton  
Vice President, Human Resources  
The Methodist Hospital

Laura Fortin  
Chief Nursing Executive  
CHRISTUS St. Joseph's Hospital

Gerald Goodman  
Assistant Professor, Health Care Administration  
Texas Woman's University

Barbara Hayley  
Executive Marketing and Training Director  
Mark Kamin & Associates

2005 Gulf Coast Hospitals  
Work Environment Survey

Deloris Leftridge  
Chief Nursing Executive  
Michael E. DeBakey VA Medical Center

Tricia Lewis  
Associate Chief of Nursing  
The Methodist Hospital

Cathy Moniaci  
Director of Patient Care Services  
Shriners Hospitals for Children - Houston

Pam Rhodes  
Vice President, Human Resources  
CHRISTUS Health Gulf Coast Region

Tabitha Rice  
Director, Clinical Business Operations  
Texas Children's Hospital

Kathy Shingleton  
Chief Human Resources Officer  
The University of Texas Medical Branch

Trudi Stafford  
Chief Nursing Officer  
Memorial Hermann Health Systems

Kathryn Stream  
Senior Vice President  
Texas Medical Center

Barbara Summers  
Vice President and Chief Nursing Officer  
The University of Texas M. D. Anderson Cancer Center

Rennie Swift  
Staff Development Specialist  
The Institute for Rehabilitation and Research

Shibu Varghese  
Vice President, Human Resources  
HCA Gulf Coast Division

K. Lynn Wieck  
President, Texas Nursing Association  
Chief Executive Officer  
Management Solutions for Healthcare

Elaine Barber  
Senior Vice President, Regional Issues Division  
Greater Houston Partnership

Dan Brogdon  
Health Industry Liason  
The WorkSource

Marilyn Stadler  
Employer Services Manager  
The WorkSource

## Appendix C

### Gulf Coast Health Services Steering Committee Work Environment Survey 2005

#### Instructions

- **Surveys must be completed by November 30, 2005. Survey data entry will be closed on December 1, 2005.**
- **Data may be entered as it is available to you throughout the data entry period, from September 15 through November 30.** You can return to enter data as often as you like during the survey data entry period. In this way, you may enter data as it is available for entry.
- **No data is permanently recorded in your hospital's file until the survey is closed. Until the survey data entry is closed, you may enter, modify or delete data from your survey.**
- **Each time you enter or modify data, click on the SAVE button to save the data.** If you exit without clicking the SAVE button, the newly entered data is not saved and you will exit the survey with the data the same as when you opened the survey that time.
- **If your hospital is part of a multi-hospital system, please report data for each hospital separately.** Contact Donde Batten, [dbatten1@houston.rr.com](mailto:dbatten1@houston.rr.com), if you need an ID code in order to access and enter data for a hospital.
- **Select the NA box if you have no data available for a data item.** Each data item has a NA (Not Available) box next to the data field. By clicking on that box, it is clear that you do not have data for that item; it was not skipped and is not equal to a zero.
- **If the value for a data item is zero, make sure to enter 0 in that data field.** Otherwise, it will look like a blank. For example, if you have no male RNs, enter 0; if you have no data on male RNs, leave the data field blank and click on the NA box.
- **This year we have added several data checkpoints to the survey.** For example, when you enter data into the retention fields, the survey will calculate the retention rate and display it for you to review. These have been added in places where the data in 2003 was prone to errors. You cannot enter data into the data checkpoint. Please review the data checkpoints so you know that your data is correct.
- **In the survey, when specific data is entered in one field, it will automatically be populated in other locations in the survey.** For example, All Employee Headcount on 9/30/05 is shown repeatedly throughout the survey. Once entered at the first data entry

location, that number automatically is placed at the other locations as a data checkpoint. You can only change that number in the first data entry location.

- **You can print the entire survey, showing any entered data, by clicking the print icon on each page.** The survey will print onto 8.5 x 11 inch paper.
- **Please complete all data items by entering data or checking NA.** While we hope that you will be able to provide data for all the measures requested, we understand that this is sometimes not possible. Contact Donde Batten, [dbatten1@houston.rr.com](mailto:dbatten1@houston.rr.com), if you have questions regarding data that can be used to respond to a particular item.
- **Track and enter the time you spend completing the survey.** Include both time to collect data and time to enter data. This information is an indication of your contribution to the project. Please indicate the number of hours you or your staff spent collecting and providing this data in the space indicated at the end of the survey.
- **If you have any questions regarding the survey, please contact Donde Batten at 713/665-4382 or [dbatten1@houston.rr.com](mailto:dbatten1@houston.rr.com).**

**Gulf Coast Health Services Steering Committee**  
**Work Environment Survey 2005**

Hospital Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City, County and Zip: \_\_\_\_\_

Contact Person for Data Questions  
and Survey Information: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Hospital Type:(Please check one)     General Acute                       Long-Term Acute  
    Pediatric                                       Psychiatric  
    Rehabilitation  
Other, please specify \_\_\_\_\_

Hospital Setting:     For profit     Not for profit     Government

Is your hospital located in the Texas Medical Center?    Y    N

In general, please indicate the portions of your organization's activity generally covered by the reported responses --- check all that apply:

- Inpatient units
- Ambulatory clinics
- Inpatient/hospital surgical units
- Outpatient surgical units

## **Professionalism Measures**

### **Performance Appraisal Data**

Please report data and time period of the most recent annual performance period available.

1. % of performance appraisals earning the highest possible overall performance rating: for RNs only and for all employees
2. Performance appraisal rating scale and descriptors used by your organization (same example as last year)
3. Average performance appraisal rating: for RNs only and for all employees (e.g., enter 3.5 on a 5 point scale)
4. Period covered by the most recent annual performance appraisal period

## **Interpersonal Communication and Teamwork Measures**

### **Nursing Employee and Patient Satisfaction Data**

Please report data for the most recent survey period available and provide the dates of service covered by that survey. If RN only data is not available, use the organization group that best reflects nurses' opinions.

1. % of nursing staff reporting the highest level of job satisfaction possible on the employee satisfaction survey
2. Rating scale and descriptors used in the nurse satisfaction survey (same example as last year)
3. Average nurse job satisfaction rating based on the rating scale (e.g., enter 3.5 on a 5 point scale, rather than 70% satisfied)
4. Period covered by the employee satisfaction survey
5. % of patients reporting the highest level of overall satisfaction with the most recent hospital encounter on the patient satisfaction survey
6. % of patients reporting the highest level of "satisfaction with nursing care" on the most recent hospital encounter on the patient satisfaction survey
7. Rating scale and descriptors used in the patient satisfaction survey (same example as last year)
8. Average patient satisfaction rating based on the rating scale (e.g., enter 3.5 on a 5 point scale, rather than 70% satisfied)
9. Period covered by most recent patient satisfaction survey

**Staff Training and Development Measures**

**Ethnicity Data**

Please report ethnicity data as of 9/30/05. Report data only for hospital employees, full-time (FT) and part-time (PT). Do not include research entities, academic organizations, or other subsidiary organizations.

*All requested information is for HEADCOUNT numbers, rather than FTEs. Exclude contract or agency staff members not on the hospital’s payroll. “Headcount” refers to the number of individuals (part-time and full-time) on the hospital’s payroll. “Total Employees” includes all full-time and part-time staff that work in the hospital, including RNs and all other employees in the hospital.*

Ethnicity	Number of RN Employees	Total Employees
Information Not Available		
White (not Hispanic)		
Total Minorities*		
Black or African-American		
Hispanic or Latino		
American Indian or Alaskan Native		
Asian		
Hawaiian Native or Pacific Islander		

\*Calculated fields

**Gender and Age Data**

Please report gender data and average age as of 9/30/05. Report data only for hospital employees, full-time (FT) and part-time (PT). Do not include research entities, academic organizations, or other subsidiary organizations.

*All requested information is for HEADCOUNT numbers, rather than FTEs. Exclude contract or agency staff members not on the hospital’s payroll. “Headcount” refers to the number of individuals (part-time and full-time) on the hospital’s payroll. “Total Employees” includes all full-time and part-time staff that work in the hospital, including RNs, LVNs, and all other employees in the hospital.*

“Average age” means the average of the ages of all employees in that category (for example, the average age of all female RNs may be 42.5 years).

Gender	Number of RN Employees	Total Employees
Female		
Male		
Total*		

\* Calculated Fields

Average Age	RN Employees	Total Employees
Female		
Male		
Total*		

\* Calculated Fields

### Employee Training Data

Please report annual data between 10/01/04 and 9/30/05. Report data only for hospital employees, full-time (FT) and part-time (PT). Do not include research entities, academic organizations, or other subsidiary organizations.

“Internal training program hours” are those provided in-house to staff.

“Internal management training hours” refers to program hours designed to help supervisors and managers improve their ability to supervise and manage staff and fulfill hospital administrative responsibilities.

1. *Number of internal training hours for all employees*
2. *Number of internal training hours delivered to all employees using computer-based or distance learning*
3. *Number of internal management training hours for all supervisory and management staff*
4. *Number of supervisory and management staff (for all employees)*
5. *Number of internal training hours for RN employees*

## **Environmental Factors Measures**

### **Agency and Overtime Utilization Data**

Please include all RN hours, measured annually between 10/01/04 and 9/30/05, for the following measures:

1. Number of agency RN hours worked (including contract and traveler RNs)
2. Number of hours of employed RN overtime worked
3. Number of productive hours of employed RNs worked

### **Staffing Mix Data**

Please report annual data, measured between 10/01/04 and 9/30/05:

1. Number of hours of RN productive time
2. Number of hours of LVN productive time
3. Number of hours of Patient Care Assistant productive time
4. Number of total hours of RN/LVN/PCA productive time (this total should equal the sum of the three figures above)\* Calculated field

### **Patient to RN Ratios**

Please report data as of 9/30/05. Patient to RN Ratios are reported as nursing care Hours per Patient Day (HPPD).

These are direct hours of nursing care that are patient related, including nursing activities that occur away from the patient (e.g., care coordination, documentation time, treatment planning). This does not include indirect hours, nonproductive time, or all paid hours (e.g., vacation, sick time, orientation, education leave). It also does not include committee time if another direct care provider replaces the staff person.

Calculated nursing care HPPD using the following formula: (Total number of direct RN nursing care hours) divided by (Patient/resident/client census for the same 24 hours).

1. *Nursing care HPPD for ICU RNs*
2. *Nursing care HPPD for medical unit RNs*

**Turnover Data**

Please report data only for hospital employees, full-time (FT) and part-time (PT). Do not include research entities, academic organizations, or other subsidiary organizations.

*All requested information is for HEADCOUNT numbers, rather than FTEs. Exclude contract or agency staff members not on the hospital's payroll.*

“Headcount” refers to the number of individuals (part-time and full-time) on the hospital’s payroll. “Terminations” refers to the number of individuals (part-time and full-time) deleted from a hospital’s payroll for any reason including transfers to another hospital within a multi-hospital system. “Total Employees” includes all full-time and part-time staff that work in the hospital, including RNs, NPs/PAs (Nurse Practitioners/Physicians’ Assistants), Pharmacists, Other Licensed Staff, and all other employees in the hospital.

Check “NA” if data is not available or if you did not employ any individuals in that job category.

	One-Year Turnover Rate			Three-Year Turnover Rate	
	Headcount On 10/01/04	Headcount On 9/30/05	Number of Terminations From 10/01/04 to 9/30/05	Headcount On 10/01/02	Number of Terminations From 10/01/02 to 9/30/05
<b>Total Employees</b>					
<b>Full-Time</b>					
<b>Part-Time</b>					
<b>RN Employees</b>					
<b>Full-Time</b>					
<b>Part-Time</b>					
<b>NP/PA Employees</b>					
<b>Full-Time</b>					
<b>Part-Time</b>					
<b>Pharmacist Employees</b>					
<b>Full-Time</b>					
<b>Part-Time</b>					
<b>Other Licensed or Certified Clinical Staff</b>					
<b>Full-Time</b>					
<b>Part-Time</b>					

**Retention Data**

Please report data only for hospital employees, full-time (FT) and part-time (PT). Do not include research entities, academic organizations, or other subsidiary organizations. *All requested information is for HEADCOUNT numbers, rather than FTEs. Exclude contract or agency staff members not on the hospital's payroll.* "Headcount" refers to the number of individuals (part-time and full-time) on the hospital's payroll. "Total Employees" includes all full-time and part-time staff that work in the hospital, including RNs, NPs/PAs (Nurse Practitioners/Physicians' Assistants), Pharmacists, Other Licensed Staff, and all other employees in the hospital.

For one-year retention, report the total number of employees on staff for the time period beginning 10/01/04. Report the total number FROM THAT SPECIFIC GROUP who remain on staff at the end of the time period ending 9/30/05. For example, a hospital reports 100 nurses on staff as of October 1, 2004. Of these 100 nurses, 80 remain on staff on September 30, 2005. For three-year retention, report the total number of employees on staff for the time period beginning 10/01/02. Report the total number FROM THAT SPECIFIC GROUP who remain on staff at the end of the time period ending 9/30/05.

Check "NA" if data is not available or if you did not employ any individuals in that job category.

	One-Year Retention Rate			Three-Year Retention Rate		
	Headcount of Employees on Staff 10/01/04	Headcount of Employees Remaining on Staff 9/30/05	One-Year Retention Rate*	Headcount of Employees on Staff 10/01/02	Headcount of Employees Remaining on Staff 9/30/05	Three-Year Retention Rate*
<b>Total Employees Full-Time Part-Time</b>						
<b>RN Employees Full-Time Part-Time</b>						
<b>NP/PA Employees Full-Time Part-Time</b>						
<b>Pharmacist Employees Full-Time Part-Time</b>						
<b>Other Licensed or Certified Clinical Staff Full-Time Part-Time</b>						

\*Calculated Fields

**Vacancy Data**

Please report data only for hospital employees, full-time (FT) and part-time (PT). Do not include research entities, academic organizations, or other subsidiary organizations.

*All requested information is for HEADCOUNT numbers, rather than FTEs. Exclude contract or agency staff members not on the hospital's payroll.*

“Headcount” refers to the number of individuals (part-time and full-time) on the hospital’s payroll. “Total Employees” includes all full-time and part-time staff that work in the hospital, including RNs, NPs/PAs (Nurse Practitioners/Physicians’ Assistants), Pharmacists, Other Licensed Staff, and all other employees in the hospital.

Check “NA” if data is not available or if you did not employ any individuals in that job category.

	Number of budgeted positions as of 9/30/05	Number of Vacancies in budgeted positions as of 9/30/05
<b>Total Employees</b> Full-Time Part-Time		
<b>RN Employees</b> Full-Time Part-Time		
<b>NP/PA Employees</b> Full-Time Part-Time		
<b>Pharmacist Employees</b> Full-Time Part-Time		
<b>Other Licensed or Certified Clinical Staff</b> Full-Time Part-Time		

**Tenure Data**

Please report data as of 9/30/05:

1. Total years of service for all employees\*
2. Total years of service for all RN employees\*

\*The survey will provide the following Calculated Fields:

- a. All employee Tenure (total years of service / headcount on 9/30/05)
- b. RN Tenure (total years of service / headcount on 9/30/05)

### **Medication Error and Hospital Acquired (Nosocomial) Infection Data**

Please report your annual rates using the following prescribed formulas, measured between 10/01/04 and 9/30/05:

1. Medication Error Rate = Number of Medication Errors ÷ Number of Total Medication Doses
2. % ICU Central Line Infections = Number of ICU Central Line Infections ÷ Number of Total ICU Central Line Days
3. % Ventilator Pneumonias = Number of Hospital Acquired Ventilator Pneumonias ÷ Number of Ventilator Days
4. % Surgical Site Infections = Number of Post-Op Wound Infections ÷ Number of Surgical Cases

### **Economic Considerations Measures**

#### **Financial Results**

Please report your operating margin for the most recent year-end data using the following formula (revenues should be exclusive of investment, interest, and other non-patient care income):

1. % Operating Margin = (Net Revenue – Expenses) ÷ Net Revenue
2. Date and time period of year-end calculation

**Number of Hours to Complete Survey+** \_\_\_\_\_

***Thank you for participating in the Work Environment Survey 2005!***

## Appendix D

### Work Environment Practice Survey 2006

This survey is organized using the five dimensions of a positive work environment: Professionalism, Interpersonal Communication and Teamwork, Staff Training and Development, Environmental Factors, and Economic Considerations.

After you suggest practices and contact persons, please let those people know that you referred them to us and support sharing these practices at the annual conference.

When you click submit, the page is saved and cannot be edited again.

#### PROFESSIONALISM

The questions about professionalism apply globally to all the health care providers (e.g., nurses, other licensed healthcare providers, and physicians) as well as to managers and administrators. Professionalism is defined as:

1. The patient serves as the central focus for all the healthcare professionals (i.e. staff and physician focus is on serving the interests of the patient above his or her own self-interest)
2. Professional conduct is evidenced throughout the practice environment to include accountability, compassion, altruism, integrity, and respect.

Does your organization offer any of the following practices/programs/initiatives to positively impact Professionalism in your work environment? Answer Yes or No for each question.

1. Written curriculum for nursing staff and/or physicians regarding professionalism
2. Grand Rounds (or similar forum) during the last year, focused on professionalism
3. Integrated RN/MD training or development programs
4. Professionalism council or committee
5. Other innovative Professionalism-focused programs.

In 1-3 sentences, describe a Professionalism practice/program/initiative that you would like to share with conference participants. List the contact person for the practice described in the question above: name, title, email address and phone number.

If you have another suggested Professionalism practice, please describe it in 1-3 sentences. List the contact person for the practice described in the question above: name, title, email address and phone number.

## INTERPERSONAL COMMUNICATION AND TEAMWORK

Does your organization offer any of the following practices/programs/initiatives to positively impact Interpersonal Communication and Teamwork in your work environment? Answer Yes or No for each question.

1. Special practices that foster interpersonal communication and teamwork
2. Systems or processes that facilitate communication and teamwork
3. Competency evaluation that includes communication and teamwork components
4. Practices that foster team-oriented decision-making
5. Other innovative Interpersonal Communication and Teamwork-focused programs

In 1-3 sentences, describe an Interpersonal Communication and Teamwork practice/program/initiative that you would like to share with conference participants. List the contact person for the practice described in the question above: name, title, email address and phone number.

If you have another suggested Interpersonal Communication and Teamwork practice, please describe it in 1-3 sentences. List the contact person for the practice described in the question above: name, title, email address and phone number.

## STAFF TRAINING AND DEVELOPMENT

Does your organization offer any of the following practices/programs/initiatives to positively impact staff training and development in your work environment? Answer Yes or No for each question.

1. Leadership development programs for nurses below the manager level
2. Nursing programs on diversity related to the culture or ethnic background of patients
3. Nursing programs on diversity related to the culture or ethnic background of co-workers
4. Nursing programs related to the diverse generations in the workforce
5. Formal relationships with schools of nursing or allied health to place students in your hospital
6. Nursing staff provide clinical oversight of students instead of school faculty
7. Nursing staff provide clinical oversight of students in collaborative roles with school faculty present in the hospital
8. Clinical researchers from academic settings conduct research in your hospital, involving your staff
9. Other innovative Staff Training and Development-focused programs

In 1-3 sentences, describe a Staff Training and Development practice/program/initiative that you would like to share with conference participants. List the contact person for the practice described in the question above: name, title, email address and phone number.

If you have another suggested Staff Training and Development practice, please describe it in 1-3 sentences. List the contact person for the practice described in the question above: name, title, email address and phone number.

## ENVIRONMENTAL FACTORS

Does your organization offer any of the following practices/programs/initiatives to positively impact Environmental Factors in the work environment? Answer Yes or No for each question.

1. Work schedules that reduce the likelihood of fatigue-related patient care errors
2. Flexible work schedules that support family work/life balance
3. Special accommodations for older workers that encourage and enable participation in the workforce
4. Specific initiatives to implement a "blame-free" environment
5. Integrated occupational and patient safety programs that improve the safety of patients and employees
6. Other innovative Environmental Factors-focused programs

In 1-3 sentences, describe an Environmental Factors practice/program/initiative that you would like to share with conference participants. List the contact person for the practice described in the question above: name, title, email address and phone number.

If you have another suggested Environmental Factors practice, please describe it in 1-3 sentences. List the contact person for the practice described in the question above: name, title, email address and phone number.

## ECONOMIC CONSIDERATIONS

Does your organization offer any of the following practices/programs/initiatives to positively impact Economic Considerations in the work environment? Answer Yes or No for each question.

1. Clinical Career Ladder
2. Alternative to a Clinical Career Ladder that provides financial recognition for professional development and advanced responsibilities
3. Financial incentives for service other than annual salary increases (i.e., Retention Bonus)
4. Staff education about the total value of their rewards (compensation and benefits) package
5. Rewards for providing ideas and recommendations regarding expense management, patient safety, etc.
6. A compensation plan that provides incentives for nurses to remain in clinical, direct patient care positions
7. Programs to compete with non-hospital employers (i.e., staffing agencies, physician offices, outpatient settings)

8. Team-based incentive plans for achieving established goals (i.e., Patient Satisfaction, Expense Management, Safety)
9. Other innovative Economic Considerations-focused programs.

In 1-3 sentences, describe an Economic Considerations practice/program/initiative that you would like to share with conference participants. List the contact person for the practice described in the question above: name, title, email address and phone number.

If you have another suggested Economic Considerations practice, please describe it in 1-3 sentences. List the contact person for the practice described in the question above: name, title, email address and phone number.

## CONCLUSION

Based on your hospital's experiences with initiatives implemented to improve the work environment, please select or write in the top 3 initiatives that you believe have led to the greatest improvement.

1. Effective physician-employee conflict resolution programs are in place and utilized
2. Senior management emphasizes professional behavior by employees and physicians
3. Compensation includes financial incentives tied specifically to professional behavior
4. Shared decision making is practiced between staff and physicians
5. Employees are involved in decision-making on their units
6. Employee career development is supported
7. Management development is provided
8. Employees use the latest technology to learn and to treat patients
9. Employee scheduling supports work life balance
10. Employee safety is a priority
11. A fun work atmosphere is created
12. Non-financial recognition programs are implemented for staff
13. An executive-led initiative is stimulating significant culture improvements
14. Other, please list: \_\_\_\_\_
15. Other, please list: \_\_\_\_\_
16. Other, please list: \_\_\_\_\_

**Appendix E**  
**Annual Work Environment Project Participants**  
**2002 through 2005**

<b>Participating Hospitals</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Angleton Danbury Medical Center	Yes	No	No	No
Bayshore Medical Center	Yes	Yes	Yes	Yes
Bayside Community Hospital	Yes	Yes	Yes	No
Beacon Health Limited Woodlands	Yes	No	No	No
Bellville General Hospital	No	Yes	Yes	Yes
Brazosport Memorial Hospital	Yes	Yes	Yes	Yes
CHRISTUS St. Catherine	Yes	No	Yes	Yes
CHRISTUS St. John Hospital	Yes	Yes	Yes	Yes
CHRISTUS St. Joseph Hospital	Yes	Yes	Yes	Yes
Clear Lake Regional Medical Center	Yes	Yes	Yes	Yes
Colorado-Fayette Medical Center	Yes	No	Yes	Yes
Conroe Regional Medical Center	Yes	Yes	Yes	Yes
Devereux Texas Treatment Network	No	Yes	No	No
Dubuis Hospital of Houston	No	Yes	Yes	Yes
East Houston Regional Medical Center	Yes	Yes	Yes	Yes
El Campo Memorial Hospital	No	Yes	Yes	No
Harris County Hospital District*	Yes			
Ben Taub General Hospital		Yes	Yes	Yes
LBJ General Hospital		Yes	Yes	Yes
Quentin Mease Community Hospital		Yes	Yes	No
Huntsville Memorial Hospital	No	No	Yes	No
IHS Hospital at Houston	Yes	No	No	No
Kindred Hospital Bay Area	No	No	No	Yes
Kindred Hospital Houston	No	No	No	Yes
Kindred Hospital Houston Northwest	No	No	No	Yes
Kingwood Medical Center	Yes	Yes	Yes	Yes
Mainland Medical Center	Yes	Yes	Yes	Yes
Memorial Hermann Continuing Care Hospital	Yes	Yes	Yes	Yes
Memorial Hermann Children's Hospital	Yes**	Yes	Yes	Yes
Memorial Hermann Fort Bend Hospital	Yes	Yes	Yes	Yes
Memorial Hermann Hospital	Yes	Yes	Yes	Yes
Memorial Hermann Katy Hospital	Yes	Yes	Yes	Yes
Memorial Hermann Memorial City Hospital	Yes	Yes	Yes	Yes
Memorial Hermann Northwest Hospital	Yes	Yes	Yes	Yes
Memorial Hermann Southeast Hospital	Yes	Yes	Yes	Yes
Memorial Hermann Southwest Hospital	Yes	Yes	No	No
Memorial Hermann The Woodlands Hospital	Yes	Yes	Yes	Yes
Methodist Sugar Land Hospital	Yes	Yes	Yes	Yes
Methodist Willowbrook Hospital	Yes	Yes	Yes	Yes

<b>Participating Hospitals</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Northeast Medical Center Hospital	Yes	No	No	No
Palacios Community Medical Center	Yes	No	No	Yes
Park Plaza Specialty Hospital	No	No	Yes	No
Polly Ryon Memorial Hospital	Yes	Yes	No	No
San Jacinto Methodist Hospital	Yes	Yes	Yes	Yes
Shriners Hospitals for Children – Houston	Yes	Yes	Yes	Yes
Shriners Hospitals for Children - Galveston	Yes	No	Yes	Yes
Spring Branch Medical Center	Yes	Yes	Yes	Yes
SSH Houston. Heights	No	Yes	Yes	Yes
St. Luke's Episcopal Hospital	Yes	Yes	Yes	No
St. Luke's Community Medical Center The Woodlands	NA	NA	Yes	No
Sweeny Community Hospital	No	Yes	No	No
Texas Children's Hospital	Yes	Yes	Yes	Yes
Texas Orthopedic Hospital	Yes	Yes	Yes	Yes
Texas West Oaks Hospital	No	Yes	Yes	No
The Institute for Rehabilitation and Research	Yes	Yes	Yes	No
The Methodist Hospital	Yes	Yes	Yes	Yes
The University of Texas M.D. Anderson	Yes	Yes	Yes	Yes
The Woman's Hospital of Texas	Yes	Yes	Yes	Yes
Tomball Regional Hospital	Yes	No	No	No
Triumph Hospital Northwest	No	No	Yes	No
University of Texas Medical Branch	Yes	Yes	Yes	Yes
Michael E Debakey VA Medical Center	Yes	Yes	Yes	Yes
West Houston Medical Center	Yes	No	Yes	Yes
<b>Total Responding Hospitals</b>	<b>45</b>	<b>45</b>	<b>49</b>	<b>43</b>
<b>Total Hospital Beds Represented</b>	<b>13,796</b>	<b>13,678</b>	<b>13,827</b>	<b>12,527</b>

\* In the 2002 survey, the Harris County Hospital District participated as one hospital; however, in subsequent surveys, each of the three hospitals participated individually.

\*\* Counted as one with Memorial Hermann Hospital