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Executive Summary

Initially, Nursing Business Operations within the University of Michigan Hospitals and Heath Center (UMHHC) did not have a well documented account of the existing processes for collecting, analyzing and disseminating nursing data. Our team investigated these processes and conducted analyses. The analysis included interviewing pivotal data auditors and facilitators, surveying end users of nursing data, and shadowing data auditors. The task of the team was to document the current processes and identify areas of improvement. Included in the scope of nursing data are three specific types of data:

- Clinical Data
- Employee Satisfaction Data
- Patient Satisfaction Data

Clinical Data

Clinical data consists of three groups; patient restraint orders, patient controlled analgesia, and clinical performance indicators.

Findings

- Data collection process is highly variable, requiring as much as 30 minutes per audit, and as little as 5 minutes per unit audited.
- Sources of variation: flow boards are not used in some departments, flow boards do not have a standard location in other departments, and doctors’ signatures are often hard to obtain (or require a long waiting period, dependent on doctors’ availability).
- Sources of variation are beyond the control of Nursing Business Operations. They require modification of current nurse and doctor procedures.
- Data entry is very inefficient. Data is initially entered in Microsoft Word, then manually copied from Word to Microsoft Excel, then manually processed into graphs and charts to create unit specific reports.
- Data collection is completely manual.
- All activities involving Nursing Business Operations cost approximately $97,000 per year.

Recommendations

- Design a future student project to focus more specifically on this area, where the group would have the influence to modify the current data collection process.
- Investigate the use of Morrisey Concurrent Care Manager software and/or other IT tools such as handheld electronic devices for data collection and auditing. This would give real-time data that is immediately loaded into a database and ready to be processed, once it is recorded.
- Use one FTE instead of two PTE to audit data
Employee Satisfaction Data

Findings

- Sample size of internal survey, which is used to evaluate employee sentiments, has been declining over the past year and a half (1201 respondents in June of 2002, compared to 819 in December of 2003).
- Respondents can answer the survey as many times as they wish, which can lead to unrepresentative data.
- From the survey our group conducted on nursing data end users (i.e. nursing managers, directors, and support personnel), approximately half of the respondents stated that they received reports in an untimely manner. This indicates that the usability of reports declines if they are outdated once they are received (Survey based on the responses of 38 out of the 47 who were invited to complete the survey)
- Approximately 30% of respondents also said that the reports they received were not presented clearly.
- Creating employee satisfaction reports cost Nursing Business Operations approximately $1,600 annually to produce reports.

Recommendations

- Purchase a contract with WebSurveyor <www.websurveyor.com>. This service will allow employee satisfaction to be delivered to end users faster. It would not allow those surveyed to answer more than once. Additionally, more effective and efficient surveys may help remedy the problem with decreasing sample size. The service would also be available for other functions of Nursing Business Operations, not just employee satisfaction.
- If Nursing Business Operations wants to keep the current system, hire a junior programmer (a student from the computer science field at the University) to write Microsoft Excel macros. The macros would be constructed to automatically process employee satisfaction responses and create reports. After the initial cost outlay to create the macros, they would require little maintenance.

Patient Satisfaction Data

Findings

- Outsourced to Press Ganey.
- Costs approximately $6,400 annually to Nursing Business Operations to create reports.
- Data from Press Ganey reports that is already in electronic form is being re-entered into Excel to create specialized reports.
- These specialized reports are then emailed to the end users.
- Manual process can often take longer than one month, and reports are presented quarterly.
**Recommendations**

- Use eCompass software currently provided by Press Ganey to create patient satisfaction reports for end users. Data is updated approximately once a month, not quarterly. Specialized reports can be produced in less than 15 minutes, as opposed to the current one month process.
- Provide training to nursing managers and other end users, so that they can create real-time, specific reports. Training requirements would be minimal, as eCompass is very straightforward. Make this part of the nursing managers’ job descriptions.
- This would eliminate $6,400 in labor hours to produce current reports.
Introduction & Background

This project was conducted for Nursing Business Operations within the University of Michigan Hospitals and Health Center (UMHHC). Initially, a well-documented account of the methods used for collecting, preparing, and disseminating nursing administrative data to its twenty-nine nursing units did not exist (nursing administrative data consists of clinical data, employee satisfaction data, and patient satisfaction data). As a result, Nursing Business Operations was not fully aware of the resources being allocated to the existing processes. Additionally, the timeliness and usefulness of nursing data as perceived by the end users (nursing managers, nursing directors, and support personnel) were also unknown. The task, therefore, was to collect information relevant to the nursing data process, to analyze findings, and to recommend solutions that will increase efficiency, cost effectiveness, organization, and usefulness of nursing data. This report presents our findings and recommendations.

Approach & Methodology

The three steps conducted for each of three nursing data types are data collection, data analysis, and recommendations. The following section describes the data collection process.

Data Collection

The data collection phase included interviewing data auditors and facilitators, shadowing data auditors, and surveying end users. Data facilitators are those who process data and create and disseminate reports.

Interviews

First, we interviewed key data collectors, processors, and disseminators. A clinical nurse consultant (CNC) and Quality Improvement (QI) personnel provided insight on the collection, preparation, dissemination, and overall structure of employee and patient satisfaction data. From this information, we created process flow maps for employee and patient satisfaction data flow. These process flow maps identify the current channels that employee and patient satisfaction data follows from conception to dissemination.

Secondly, our team interviewed two data auditors, who perform manual data collection throughout the various units, to gain an understanding of the flow of clinical data. Clinical data includes three categories that Nursing Business Operations is responsible for; patient restraint orders, clinical performance indicators (CPI), and patient controlled analgesia (PCA).

Shadowing Data Auditors
One project goal was to determine the cost of specific clinical operations performed by Nursing Business Operations in the UMHHC. Specifically, the client wished to identify both the cost of auditing and the cost of producing clinical data reports. Initially, interviews were conducted with the data auditors to understand the process. Then, members of our team followed the auditors throughout the hospital while they performed their duties. The team recorded the amount of time to accomplish tasks and made observations on the current process.

**End User Survey**

Ultimately, timeliness and usability of nursing data is critical to its purpose. An eleven question web-based survey was conducted to determine the perceptions of the end users with regard to the nursing data reports they receive. End users include the nursing managers, 4 nursing directors, and support personnel. The service used is an on-line platform called WebSurveyor. Of the forty-seven survey recipients, thirty-seven responded within the allotted one week period. The survey asked about timeliness, format, and usefulness of the nursing data reports received by end users. The questions and results of the entire survey are included in Appendix C.

After collecting data, we analyzed interview results, process flow maps, and end user surveys to identify areas for improvement.

**General Findings and Conclusions**

The results of the end user survey revealed similar perceptions of all three types of nursing data.

**Timeliness of Delivery**

Participants were asked if nursing data reports are delivered in time to be included in management decisions. Table 1 shows that nearly half of the participants feel that the reports are delivered too late, for each data type.

<table>
<thead>
<tr>
<th>Report</th>
<th>Arrives on time (%)</th>
<th>Arrives too late (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Satisfaction</td>
<td>56.8</td>
<td>43.2</td>
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<td>Patient Satisfaction</td>
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</tr>
<tr>
<td>Clinical Data</td>
<td>51.4</td>
<td>48.6</td>
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</table>

These results, along with additional comments provided by survey participants, indicate that end users would benefit greatly from faster delivery. Specifically, the comments provided by some respondents expressed the need for real-time results to make effective management decisions.

**Clarity of Reports**
Currently, all reports are manually generated in Microsoft Excel. Approximately 30% of respondents indicated that the presentation of nursing reports is unclear. This statistic indicates that improvements in the format of nursing data reports would benefit end users.

**Clinical Data**

Clinical data is collected and prepared to monitor compliance with Joint Commission on Accreditation of Healthcare Organizations (JHACO) requirements and to track unit performance. Nursing Business Operations is responsible for three types of clinical data: patient restraint orders (restraints), patient controlled analgesia (PCA), and clinical performance indicators (CPI). Currently, two PTE act as data auditors. One works 20 hours per week and the other works 24.

**Patient Restraint Orders**

Patient restraint orders must be completed whenever a patient is physically restrained to a bed by straps or other restraints. For each 24 hour period that a patient is restrained, a doctor must sign a restraint order. Nursing Business Operation’s role is to audit the hospital’s compliance with this requirement. Reports are created quarterly.

**Current State**

Our team planned to map the restraint collection process by shadowing the data auditors through their rounds in the hospital. After shadowing the data auditors and discussing with our client and coordinator, we concluded that the actual data collection and auditing process was outside the scope of this project. Extensive time and intense investigation must be allocated to clinical data collection analysis. The team instead mapped the creation of restraint order reports. Figure 1 displays the data flow, once the audits and collections have taken place.

Figure 1: Restraint data process flow

**Findings**

The following findings are based on interviews and observations.

- The cost of auditing restraint order is based on the labor of the CNC and the two auditors. The CNC estimated that she spends 196 hours receiving, sorting, and performing other duties related to maintaining all clinical data. Since there are three types of clinical data, this translates roughly to 65.33 hours for each type per
year. She also estimated that each quarter, she spends roughly 80 hours creating clinical data reports. This means that she spends 320 hours per year creating clinical data reports. Since there are three types of clinical data, 106.67 hours are allocated to creating restraint reports.

Using nine months of a recorded time sheet, and extrapolating to twelve months, we determined that the first data auditor spends about 607 hours on restraints.

Since the second data auditor does not complete time sheets, we interviewed and determined that she spends about 613 hours per year on restraints.

All three employees are paid $40 per hour in salary and benefits.

The total cost to audit and create reports for restraints each year is computed as follows:

\[(65.33 + 106.67 + 607 + 613) \times 40 = \$55,680 \text{ per year}\]

- Each year, 64 audits are conducted, 52 on ICUs and 12 on general units. The cost per audit is computed as follows:

\[\frac{55,680}{64 \text{ audits}} = \$870 \text{ per audit}\]

- The data collection process is highly variable. This process can take anywhere from 5 to 30 minutes to complete an audit on one unit.
- Data collection is mostly manual.
- There are several sources of variation. Flow boards, which are binders used to hold restraint orders, do not have standard locations in each unit. Also, doctors’ signatures are often hard to obtain (or require a long waiting period, dependent on doctors’ availability).
- Improvement on these sources of variation is beyond the scope of this project, since it would require intervention in nursing unit practices and doctors’ procedures.

**Patient Controlled Analgesia**

Patient controlled analgesia audits are conducted to track the completion and efficacy of pain management. Reports are created quarterly.

**Current State**

As with restraints, after the initial shadowing of the data auditors, our group focused on mapping the report creation for PCA, not the actual auditing process. The flow map in Figure 2 is similar to that of restraints.
PCA auditing process is high in variation and outside of project scope

1. Auditors send PCA results to CNC
2. CNC enters data to Excel and creates comparative reports
3. CNC sends specific reports to end users

Figure 2: PCA data process flow.

Findings

- The cost of auditing PCA has the same components as restraints. Maintenance of PCA is also 65.33 hours and report creation is 106.67 hours.

From the first data auditor’s time sheets, we found that she spends about 107 hours per year on PCA. The second data auditor does not perform PCA functions.

The cost of auditing and reporting PCA is computed as follows:

$$(65.33 + 106.67 + 107) \times 40 = \text{\$11,160 per year}$$

- Each year, 52 audits are conducted.

$$\frac{11,160}{52 \text{ audits per year}} = \text{\$214.62 per audit}$$

- Data collection is completely manual.

Clinical Performance Indicators

Clinical performance indicators are a series of critical areas that are measured to gauge performance of a particular unit. The Functional Health Pattern Assessment is audited to ensure that employees are completing the inpatient charts correctly. A correct completion percentage of 95% is required by JCAHO.

Current State

Our team investigated both the auditing process and the creation of reports for clinical performance indicators. Figure 3 displays the process flow map.
Findings

- As with the previous two clinical data types, the CNC contributes 65.33 and 106.67 labor hours per year for CPI.

  From the time sheets of the first data auditor, we determined that she contributes 148 labor hours per year.

  From interviewing the second data auditor, we determined that she contributes 438 labor hours per year.

  The cost of auditing and reporting CPI is computed as follows:

\[
(65.33 + 106.67 + 148 + 438) * \$40 = \$30,320 \text{ per year}
\]

- PCA audits take place quarterly. Each quarter, 10 charts are audited in each of the 29 nursing units, for a total of 290 charts. The cost per PCA is computed as follows:

\[
\frac{\$30,320}{116 \text{ units per year}} = \$261.38 \text{ per unit}
\]

- Data collection is highly manual.
- Data processing is highly redundant.

Clinical Data Recommendations

The clinical data process is highly manual and variable. After interviewing and shadowing data auditors, and attempting to conduct time studies, we determined that a second student group should be asked to focus on the specifics of the clinical data auditing process.

- Design a future student project to focus more specifically on this area. The investigating group would need the ability to modify the current process. This includes the power to relocate flow boards and change doctor procedures.
• Investigate the use of Morrisey Concurrent Care Manager. This software is already owned and utilized by UMHHC. It offers the ability to utilize wireless technology to conduct data collection and auditing in a highly efficient manner.

• Instead of 2 PTE (20 hours, 24 hours) use 1 FTE working 40 hours per week. The savings will be realized by eliminating one benefits package.

**Employee Satisfaction**

**Current State**

Employee satisfaction reports are created semiannually from internal surveys taken by UMHHC employees. The following process flow map represents the steps that are completed twice a year to produce employee satisfaction reports for Nursing Business Operations.

---

**Employee Satisfaction Data Flow Process Description (refer to Figure 4)**

Quality Improvement initiates an in-house electronic survey to all UMHHC employees, which is voluntarily completed. QI uses filters and macros to create Excel reports. At this point, the data enters into Nursing Business Operations, which is represented by the dotted line. The clinical nurse consultant receives the report on behalf of Nursing Business Operations. If there are errors found in the data, the CNC returns it for correction to QI. The CNC then extracts three responses from the survey and creates specific reports in Excel. The CNC then sends the reports to the end users via email. *For a more detailed description of the process refer to APPENDIX A.*

---

Figure 4: Employee satisfaction data flow
**Findings**

Based on the interviews, web-based survey, and flow maps, our findings are as follows:

- QI processes and sends ~ 130 personalized employee satisfaction reports to different areas of the UMHHC. Nursing Business Operations relies on QI for employee satisfaction reports. Excessive processing due to software limits and centralized reception of the survey information by one FTE creates a lag in the process. This prevents the end user from receiving the data in a timely manner.

- Due to the use of a centralized Oracle database, to which only one FTE on QI has access, real-time data is not available for distribution. End users expressed that the data from these reports is sometimes not useful since action taken on delayed indicators is not always accurate and effective.

- The actual survey conducted by QI, from which Nursing Business Operations’ reports are subsequently created, is unreliable since the survey can be completed multiple times by a single employee. QI attempts to filter noise from the surveys, but knowing whether a repeated IP address is from the same employee, or from a different one taking the survey on a shared computer, is not possible.

- One manager expressed that in many cases, the sample sizes for survey responses are very low. When data is filtered for specific units, sample sizes can be much less than 10. Decisions cannot be made on data with an extremely low sample size because it leads to inaccurate conclusions.

**Recommendations**

**Alternative 1: Macros**

- Investigate the feasibility of creating Microsoft Excel macros to expedite the process of creating reports for Nursing Business Operations. This would require hiring a junior programmer to write macros that will automatically create and send the reports needed by end users after QI has processed the survey results. This entails a one-time setup cost with periodic maintenance from an administrative assistant.

**Alternative 2: WebSurveyor**

- Implement the WebSurveyor service within Nursing Business Operations. Nursing Business Operations could conduct specific surveys independent of QI. This will also allow Nursing Business Operations to create and conduct other surveys when needed. The service can be obtained for $1500 per year. Other, more capable contracts are available for more money. Refer to Table 2 for pricing details.
Table 2: WebSurveyor pricing

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<thead>
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<th>Type</th>
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<th>PRO PLUS</th>
<th>ENTERPRISE</th>
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</tr>
<tr>
<td>Number of Surveys</td>
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<td>Unlimited</td>
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</tr>
<tr>
<td>Duration</td>
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<td>12 months</td>
<td>12 months</td>
<td>12 months</td>
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</tr>
<tr>
<td>Number of Users</td>
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<td>1</td>
<td>1</td>
<td>Unlimited</td>
<td>Unlimited</td>
</tr>
<tr>
<td>Email Invitations</td>
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</tr>
<tr>
<td>Administration Tools</td>
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<tr>
<td>Price³</td>
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<td>$1,500/year</td>
<td>$2,000/year</td>
<td>$1,000/month</td>
<td>$3,000</td>
</tr>
</tbody>
</table>

Call 1-800-787-8755 for a custom price quotation.

- Further investigation on budget allocation for WebSurveyor service is necessary.

**Potential Improvements**

**Alternative 1: Macros**

- Steps 4-7 on Figure 4 can be eliminated, which allow data to be processed closer to real-time.
- This translates into a cost savings of approximately $1600/year (40 hours x $40/hour). The startup costs and maintenance of the macros would most likely have similar costs, but there would be improvement in quality and timeliness of reports.

**Alternative 2: WebSurveyor**

- This would also save $1600 in labor, which instead could be spent on the service.
- Surveys can be conducted within Nursing Business Operations as often as necessary without the addition of a new FTE, and they yield real-time information on any employee satisfaction related issue.
- Real-time display in graphs of data collected, as well as actual response rate displayed.
- Data could become more reliable. Assuming that the low cost for this software can be absorbed by the Nursing Business Operations budget, employees will be able to express their concerns on a real time basis. Nursing Business Operations can also observe the general perceptions of employees, on multiple issues. As the data becomes more reliable and used in decision making, employees will have an incentive to complete the surveys.
- Software provides user friendly interface.
- Cumbersome current process flow transforms to a self-contained and continuous three step process with no lead time.

**Patient Satisfaction**

**Current State**

Patient satisfaction reports are created quarterly. The following process flow map represents the steps that are completed four times per year to produce patient satisfaction reports for Nursing Business Operations.

![Process Flow Map]

**Patient Satisfaction Data Flow Process Description (refer to Figure 5).**

Press Ganey conducts surveys on a random sample of patients who have been treated at the UMHHC. Press Ganey then sends the survey results electronically to the UMHHC. Using this data, Quality Improvement uses eCompass software to create reports for different departments throughout the UMHHC. A clinical nurse consultant (CNC) in Nursing Business Operations receives a report. The dotted box encloses the area involving NBO. The CNC prints the report, selects responses from the report that are relevant to nursing managers, directors and supporting employees, and then reenters that information into Excel. Individualized reports are created based on the selected responses. These reports are then sent by CNC via email to the end users. *For a more detailed description of the process refer to APPENDIX B.*

Figure 5: Patient satisfaction data flow

The CNC performs Steps 4-7. The CNC reported that it takes roughly 40 hours to complete. Since the process is repeated four times per year, the total number of hours committed to this process is 160 hours. With salary and benefits totaling $40 per hour for the CNC, this process represents $6,400 in cost to Nursing Business Operations per year.
Steps 4-7, those which Nursing Business Operations conducts, take 20 or 30 days, and sometimes longer.

**Findings**

Based on the interviews, web-based survey, and flow charts our findings are:

- 54.3% of the users who receive patient satisfaction reports feel that the reports do not arrive on time.
- 30% of participants indicated that the presentation of information is not clear.
- The cost of creating individual reports by the CNC is $6,400 per year.
- Excessive and unnecessary data entry and processing is being done by the CNC.

Based on these findings we determined that there are opportunities for improvements with respect to clarity, timeliness and cost of the reports.

**Recommendations**

Our process flow recommendation is based on the following premises:

1. People are willing to share their unit data with other units (94.1% of the respondents agreed on the survey).
2. Timeliness of data arrival is questionable.
3. Quality of data presentation needs improvement.

Recommendation based on the above premises:

- End users should use eCompass software from Press Ganey to create their own customized reports

Steps 4-7 of Figure 5 can be replaced by the user friendly software that is currently available to the UMHHC at no additional cost. The eCompass software provided by Press Ganey, which is currently owned and utilized by UMHHC, is a tool that allows the user to manipulate the patient satisfaction results and tailor a report that serves his or her needs. It creates reports that are comprehensive, clear, and fast. eCompass can eliminate the unnecessary data entry that currently exists in the process, as well drastically reduce lead time of the report creation process. Figure 6 is a screen shot of the eCompass interface.
Instead of using an FTE to create and send reports to managers, end users can create reports on their own. Press Ganey updates the data every month. Instead of receiving reports four times per year, end users can create reports as needed. By participating in a short training session, they could learn to create patient satisfaction reports and obtain information in real-time.

**Potential Improvements**

- Ability for nursing managers to create their own reports in real-time
- Highly customizable, flexible, and user friendly reports
- Improved report quality and accuracy, void of human error
- Savings of $6400 for Nursing Business Operations
- Lead time reduced to approximately 15 minutes

Figure 7 displays the flow map for the improved process incorporating eCompass.
1. Press Ganey conducts surveys on previous patients

2. PG delivers report to UMHHC in electronic format

3. End users use eCompass to create reports

Figure 7: Recommended patient satisfaction data flow

Steps 4-7 are eliminated in the current state, reducing the production lead time to 15 minutes.

Implementation plan

Teaching end users to use eCompass would require a small training session. Since the software is very user friendly, this training could take between 30 min and 2 hours, depending on the computer skills of the user. Additionally, the information technology department must make sure that all the end users have access to eCompass.

Conclusions

Nursing Business Operations has the ability to improve and streamline the current nursing data processes. The current processes are highly manual and would benefit from automation, which is available to UMHHC at reasonable costs, often less than the costs of the current methods being used.
APPENDIX A: *Detailed description of the flow map for employee satisfaction*

1) Quality Improvement initiates an in-house survey that was previously developed. The survey is administered using web-based software that is licensed for general use in the UMHHC. Employees are notified by email and have one month to complete the survey, which is voluntary.

2) Employees complete the survey via intranet within one month of the release.

3) Quality Improvement compiles survey responses into an Oracle database. The data is then sorted using macros, and specialized reports are created in Excel for different departments.

4) The CNC receives a nursing specific employee satisfaction report that contains employee responses for various nursing units. At times, errors are found in the report received from Quality Improvement. If this occurs, the CNC sends the report back. The report is corrected, and then sent back to the CNC.

5) If no errors are found in the report, the CNC extracts the statistics for the responses to following three questions/statements from the Excel report:
   1. I feel satisfied with how my workplace concerns are addressed.
   2. I enjoy working with my direct supervisor.
   3. Willingness to recommend my department as a good place to work.

6) The CNC takes the three questions from the previous steps and creates individual Excel reports for different nursing units. Reports are also created for the four nursing directors.

7) Finally, the individual reports are sent to their respective units. The personnel who receive these reports are nursing managers, nursing directors, as well as selected supporting employees.
APPENDIX B: *Detailed description of the flow map for patient satisfaction*

1. Press Ganey contacts a representative sample of patients from the UMHHC, and compiles a report comparing many aspects of patient satisfaction to those of other hospitals. Last quarter, 611 adult patients were surveyed for the adult report, and 308 children for the pediatric report. Press Ganey is under contract with the UMHHC, so this step is not changeable.

2. Press Ganey delivers their comprehensive report to the UMHHC. The report can be viewed on the Press Ganey software, eCompass, by any health system employee with an authorized password. Passwords can be obtained from Quality Improvement. Quality Improvement accesses the Press Ganey results in eCompass and creates reports for different departments using eCompass. The reports are sent via email.

3. One of the departments that receives an electronic report from Quality Improvement is Nursing Business Operations, which is the department that the team is performing this study. The Clinical Nurse Consultant (CNC) receives a copy.

4. The CNC then prints a hardcopy of the Press Ganey report.

5. Looking at the hardcopy, the CNC extracts survey answers from several categories and enters them into Excel. These categories are as follows (number of answers from respective category in parentheses):
   a. Nursing (9)
   b. Visitors and Family (4)
   c. Physician (6)
   d. Discharge (4)
   e. Personal (10)
   f. Overall – Likelihood of Recommending (3)
   g. Intensive Care (4)
   h. Patient Education (3)

6. During the extraction process, the CNC creates reports specific to different nursing units within the hospital. These reports contain the same answer categories from the Press Ganey survey (a through h in the previous step), but with the responses of patients who stayed on the unit for whom the specific report is being created for. For example, the CNC would create one report with responses of patients who stayed on Unit 6a. The CNC would create a different report with responses of patients who stayed on Unit 7b. Reports are also created for the four nursing directors, with their corresponding units’ statistics in their respective reports.
7. Finally, the individual reports are sent to their respective units. The personnel who receive these reports are nursing managers, nursing directors, as well as selected supporting employees.
APPENDIX C: WebSurveyor End User Survey

Over what medium do you currently receive the following data?

- **Employee Satisfaction**
  - Email: 94.6%
  - Hard Copy: 16.2%

- **Patient Satisfaction**
  - Email: 83.8%
  - Hard Copy: 5.4%

- **Clinical Data**
  - Email: 69.2%
  - Hard Copy: 5.4%

Over what medium do you currently receive the following data? - Employee Satisfaction

- **Email**: 94.6%
- **Hard Copy**: 16.2%
Over what medium do you currently receive the following data? - Patient Satisfaction

- Email: 83.8%
- Hard Copy: 28.7%
- Web Page: 5.4%

Over what medium do you currently receive the following data? - Clinical Data

- Email: 89.2%
- Hard Copy: 27.0%
- Web Page: 5.4%
Over what medium would you prefer to have the following data delivered to you?

- Employee Satisfaction
  - Email: 86.5%
  - Hard Copy: 16.2%
  - Web Page: 13.5%

- Patient Satisfaction
  - Email: 78.4%
  - Hard Copy: 16.2%
  - Web Page: 13.5%

- Clinical Data
  - Email: 67.6%
  - Hard Copy: 27.0%
  - Web Page: 18.9%
Over what medium would you prefer to have the following data delivered to you?

- Patient Satisfaction

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<thead>
<tr>
<th>Medium</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>78.4%</td>
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<tr>
<td>Hard Copy</td>
<td>18.2%</td>
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<tr>
<td>Web Page</td>
<td>13.5%</td>
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- Clinical Data

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>67.6%</td>
</tr>
<tr>
<td>Hard Copy</td>
<td>27.0%</td>
</tr>
<tr>
<td>Web Page</td>
<td>18.9%</td>
</tr>
</tbody>
</table>
Do the following data arrive when you need it?

- **Employee Satisfaction**
  - Yes: 55.6%
  - No, too soon: 44.4%
  - No, too late: 0.0%

- **Patient Satisfaction**
  - Yes: 52.9%
  - No, too soon: 0.0%
  - No, too late: 0.0%

- **Clinical Data**
  - Yes: 52.9%
  - No, too soon: 47.1%
  - No, too late: 0.0%
Do the following data arrive when you need it? - Patient Satisfaction

- Yes: 52.9%
- No, too late: 47.1%

Do the following data arrive when you need it? - Clinical Data

- Yes: 52.9%
- No, too late: 47.1%
Do you feel the following data is presented clearly (clear charts, clear graphs, easy to read format, etc.)?

- Employee Satisfaction: Yes 25, No 23
  - Percentage: 63.9%
- Patient Satisfaction: Yes 24, No 22
  - Percentage: 76.5%
- Clinical Data: Yes 23, No 13
  - Percentage: 64.7%

Do you feel the following data is presented clearly (clear charts, clear graphs, easy to read format, etc.)? - Employee Satisfaction

- Yes: 23
- No: 13
- Percentage: 63.9%
Do you feel the following data is presented clearly (clear charts, clear graphs, easy to read format, etc.)? - Patient Satisfaction

- Yes: 26
- No: 8

- Yes: 76.5%
- No: 23.5%

Do you feel the following data is presented clearly (clear charts, clear graphs, easy to read format, etc.)? - Clinical Data

- Yes: 24
- No: 12

- Yes: 84.7%
- No: 35.3%
What level of contribution do the following data make to your management decisions (zero being none, five being significant)?

- Employee Satisfaction
- Patient Satisfaction
- Clinical Data
What level of contribution do the following data make to your management decisions (zero being none, five being significant)? - Patient Satisfaction

- 16
- 14
- 3
- 1

- 45
- 32

What level of contribution do the following data make to your management decisions (zero being none, five being significant)? - Clinical Data

- 14
- 4
- 3
- 1

- 45
- 30
Which of the following data would you like to receive to aid in your management decisions (check all that apply)?

- Unit based employee satisfaction data
- Unit based average time of discharge
- Other

How many total hours per month do you spend gathering, organizing, and analyzing data related to employee satisfaction and patient satisfaction?

Mean = 7.41
Min = 2.00, Max = 60.00
Median = 4.50

0 thru 9: 70.7%
10 thru 19: 14.7%
20 thru 29: 2.9%
30 thru 39: 0.0%
40 thru 49: 0.0%
50 thru 59: 0.0%
60 thru 69: 2.9%
From whom do you receive the following reports?

<table>
<thead>
<tr>
<th>Employee Satisfaction</th>
<th>Patient Satisfaction</th>
<th>Clinical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>na</td>
<td>na</td>
<td>Amy Hofing</td>
</tr>
<tr>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

Paul Salow  
na  na  n/a
n/a  n/a  n/a
N/A  N/A  Amy Hofing
CQI  CQI  Varies
n/a
N/A  N/A  N/A
n/a  Maureen McCarthy  Unit Host  n/a
centrally  centrally (but not unit specific-ICU  Area AA
N/A  Edward Karls  Amy Hofing
NURSING  N/A  N/A
Virginia Walter, Internal Medicine  Virginia Walter, Internal Medicine  n/a
na  na  na
N/A  Melinda Adler  Many sources/person who replaced Deb Rich  my AA; Press-Ganey from person who replaced Deb Rich  Amy Hofing, Carol Barnett

n/a  n/a  Scot Lovelace, OR business manager
N/A  N/A  N/A
n/a  n/a  n/a
our own info  amy hofing
amy hofing  karble (??)  amy hofing
na  na  na

NA  Karls  None
administrator  N/A  directors, CIS, ACAR, EWS
Ed Karls  Amy Hofing
Amy Hofing  Edward Karls  Amy Hofing
Centrally and  Amy Hofing  Centrally and Amy HOfing  Amy HOfing,
N/A  N/A  N/A
Melina Adler  Email message then go to web site  Barbara Radloff, Vinita Bahl, Jackie Lapinski
Amy Hofing  Janis Price  Amy Hofing
Amy Hofing  Amy Hofing  Amy Hofing  Employee Satisfaction
na
n/a
Paul Salow
n/a
N/A  
CQI  
n/a  
N/A  
n/a  
centrally  
N/A  
NURSING  
Virginia Walter, Internal Medicine  
na  
N/A  
person who replaced Deb Rich  
n/a  
N/A  
n/a  
amy hofing  
na  
NA  
administrator  
Ed Karls  
HR Dept.  
Amy Hofing  
Centrally and Amy Hofing  
N/A  
Melina Adler  
Amy Hofing  
Amy Hofing  Patient Satisfaction  
na  
n/a  
same  
n/a  
N/A  
CQI  
N/A  
Maureen McCarthy  Unit Host  
centrally (but not unit specific-ICU  
Edward Karls  
N/A  
Virginia Walter, Internal Medicine  
na  
Melinda Adler  
my AA; Press-Ganey from person who replaced Deb Rich  
n/a  
N/A  
n/a  
our own info
karble  (??)
na
Karls
N/A
Quality Management Dept.
Edward Karls
Centrally and Amy Hofing
N/A
Email message then go to web site
Janis Price
Amy Hofing  Clinical Data
Amy Hofing
"N/A'
n/a
Amy Hofing
Varies
N/A
n/a
Area AA
Amy Hofing
N/A
n/a
na
Many sources
Amy Hofing, Carol Barnett
Scot Lovelace, OR business manager
N/A
n/a
amy hofing
amy hofing
na
None
directors, CIS, ACAR, EWS
Amy Hofing
Quality Management Dept.
Amy Hofing
Amy Hofing,
N/A
Barbara Radloff, Vinita Bahl, Jackie Lapinski
Amy Hofing
Amy Hofing
Of the information you receive regarding employee satisfaction, patient satisfaction, and clinical data, what percentage do you feel is relevant to your role?

- 50-75%: 41.2%
- 25-50%: 29.4%
- 75-100%: 23.5%
- 0-25%: 5.9%

With respect to all of the management data that you receive, would a monthly or quarterly newsletter summarizing significant indicators be useful to you?

- Yes, in addition to the data I currently receive: 58.8%
- Yes, in place of the data I currently receive: 29.4%
- No: 11.8%
Need paper surveys for clinical people. They can't sit at computers in the OR and do this—so they don't and all data given to me is from office and clerical staff—not relevant.

Routinely share with staff and managers in my area and have discussions about the data and key drivers and how to improve or sustain consistent with organizational mission.

The problem that I have is that the number of respondents for both employee and patient satisfaction is too low to be generalized for my area. I don't want to take action on unreliable data.

The MAC cluster has developed a dashboard for all clinical data/patient satisfaction and employee satisfaction. This works extremely well.

If we could receive them when they are being done, we would be able to address & follow up with staff "real time". When it's 2-4 months after the fact, it's difficult to express the importance. Also, we need to track the RNs who are doing the admissions, because many times it's not our own unit staff.

We manage our own data base with respect to our own pt satisfaction survey, since Press Ganey does not service our unit's needs. We would always appreciate central support for this data input and management.

Data received is too old making a prompt response to change impossible. Data should be streamlined and presented all together.
I find the data is useful but addressed in a very punitive manner by directors, when issues brought forward to ask for help for improvement no real direction given. We need to redo the clinical indicators and manage this in a more proactive and positive supportive manner, not in such a negative culture. Staff want to do well and the flow of work is sometimes a barrier to getting documentation done. The whole documentation process needs to be reviewed. We all want to do a better job with this but we need help and a positive supportive and helpful environment to do it in...