University of Michigan Health System
Program and Operations Analysis

Analysis of Nursing Documentation Process

Final Report

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EXECUTIVE SUMMARY

The nursing personnel at the University Hospital (UH) and Mott Children's Hospital believe that the amount of documentation required is time consuming and labor intensive, taking time away from direct patient care. Therefore, the staff desires to track the flow of nursing documentation to determine the percentage of time that it consumes each day. The task of this project is to quantify and analyze the nursing care documentation workflow on two inpatient units, Mott-5E and UH-7B/C, from admission through discharge. The findings will be delivered to Barbara Wetula, Assistant to Chief of Nursing, and can also be used as a baseline for future studies on nursing documentation after implementation of the Orders Management Program (OMP).

Background

In both units, nurses perform activities related to the documentation of patient care. Some of these forms are filled out during regular intervals, while others must be filled when certain conditions arise. Nurses feel that the amount of documentation has increased in the past few years due to increased requirements in documentation standards by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Nurses in both units feel that the time they spend filling out, retrieving, and reviewing documentation is taking time away from direct patient care and education.

Methodology

The following tasks were completed in order to gather information on the current nursing documentation process:

- **Completed Literature Search.** We collected information on a study being performed at the University of Illinois at Chicago (UIC) categorizing nursing activities to serve as a benchmark for our own findings.
- **Flowcharted Documentation Process.** We developed flowcharts based on observation and information from the Assistant to Chief of Nursing of the current documentation process used in both units.
- **Conducted Interviews.** We interviewed nurses from February 14, 2006 to February 22, 2006 to gain a better understanding of their perception of the documentation process.
- **Conducted Surveys.** We developed an online survey to be completed by the nurses from both units to record their satisfaction level with the current operations.
- **Performed Work Sampling.** We performed work sampling with random beepers to get a large sample of data on the percentage of time that nurses doing different activities.
- **Performed Work Sampling.** We performed time studies to validate the work sampling results.
Findings

Nurses at Mott-5E were found to spend 18% of their time on documentation activities, while nurses at UH-7B/C were found to spend 21% of their time on documentation activities, a statistically significant difference. Factors such as experience working with University of Michigan Hospitals (UMH), overall experience, job classification, and shift were examined to see their effect on the percentage of time spent doing documentation activities. Proportion testing was used to test the statistical significance of each of these factors.

For UH-7B/C, nurses with less than one year of experience at UMH were found to spend a greater percentage of their time working on documentation activities than more experienced nurses.

For Mott-5E, nurses with greater than five years of experience at UMH were found to spend a greater percentage of their time working on documentation activities than less experienced nurses. Nurses working the eight hour evening shift were also found to spend a greater percentage of their time working on documentation activities than those working the eight hour night shift.

Recommendations

Recommendations were made for both units to reduce the amount of time nurses spend on documentation activities by eliminating redundancies and inefficiencies.

Recommendations for UH-7B/C

- Educate the nurses on the purpose of the SOAP note and what information it should contain to avoid redundancies with the Flowsheet
- Re-design the Subjective Objective Assessment Plan (SOAP) note so it is more structured, including a section for each part with checkboxes and lines for writing comments.
- Combine the admission forms into one packet so nurses do not have to go to multiple locations to retrieve forms used for admission.

Recommendations for UH-7B/C

- Implement same changes to SOAP note as recommended for UH-7B/C
- Incorporate ‘Patient Care’ portion of Flowsheet with CHC Patient Education Record to reduce redundancy between the two sections
- Make Discharge Summary (SOAP) part of Discharge Navigator, and eliminate redundancies between the two
- Synchronize MD Discharge information with Discharge Navigator to avoid redundancy and patient confusion
We recommend that the next phase of this project explore the implementation of these recommendations more thoroughly. Work sampling should then be performed to quantify improvements and reductions in the time spent on documentation activities.
INTRODUCTION

The nursing personnel at the University Hospital (UH) and Mott Children’s Hospital believe that the amount of documentation required is time consuming and labor intensive, taking time away from direct patient care. Therefore, the staff desires to track the flow of nursing documentation to find out the percentage of time that it consumes each day. The task of this project was to quantify and analyze the nursing care documentation workflow on two inpatient units, Mott-5E and UH-7B/C, from patient admission through discharge. We have used these results to recommend improvements to the documentation procedure and workflow, to reduce the time that nurses spend doing documentation tasks. The findings can also serve as a comparison for future studies on nursing documentation to gauge improvements resulting from implementation of the Orders Management Program (OMP). OMP is the University of Michigan Health System (UMHS) initiative currently underway to convert some items of documentation from paper to electronic formatting. The purpose of this report is to present the final results and findings of the project.

Goals and Objectives

The primary goal of this project was to quantify the percentage of time nurses spend doing documentation activities (which includes reading, writing, or reviewing any piece of documentation related to inpatient care). We analyzed the data we collected to develop recommendations that:

- Reduce the percentage of time nurses spend on documentation activities
- Decrease the number of errors nurses make while doing documentation activities
- Increase the usability of the documentation forms
- Reduce the amount of rework necessary

Current Situation

In Mott Children’s Hospital, the 5E unit is for pediatric patients and at UH, the 7B/C unit is for cardiac patients. Depending on the shift, unit, and condition of patients, the nurse-to-patient ratio in these two inpatient units ranges from two patients per nurse (2:1) to five patients per nurse (5:1). For UH-7B/C, the number of nursing personnel working during the day shift ranges from 18 to 20 nurses and 15 to 26 nurses for the night shift. For Mott-5E, the number of nursing personnel working during the day shift ranges from 4 to 5 nurses and 3 to 4 nurses for the night shift.

In both of these units, nurses perform activities related to the documentation of patient care. We observed UH 7-B/C to have 22 distinct forms used for documentation and Mott-5E to have 28. Some of these forms are filled out during regular intervals, while others must be filled when certain conditions arise, such as a blood transfusion or discharge. Nurses feel that the amount of documentation has increased in the past few years due to increased requirements in documentation standards by the Joint Commission.
on Accreditation of Healthcare Organizations (JCAHO). Nurses in both units feel that the time they spend filling out, retrieving, and reviewing documentation is taking time away from direct patient care and education.

The environment in both units is full of distractions, and nurses must often multitask to accomplish all required tasks. This makes it difficult for nurses to complete documentation in a timely and accurate manner. In addition, forms needed are often in multiple locations, and many of the forms are believed to be redundant.

**PROJECT SCOPE**

The project scope included:
- All nursing documentation tasks from admission (the functional health assessment form) through discharge (discharge instructions/education form) in two inpatients unit: Mott-5E and UH-7B/C
- Measurements of time nurses spent on documentation

The project scope did not include:
- Other inpatient units and all outpatient services
- Time spent on documentation by non-nursing personnel

**METHODS**

Below is a summary of the approach used to assess the current nursing documentation process.

**Literature Search Completed**

We contacted Dr. Sheryl Stogis, Clinical Assistant Professor in Nursing at the University of Illinois at Chicago (UIC), via e-mail regarding findings from a study at three Chicago area hospitals categorizing nursing activities. Important findings from that project include the following:

- Less than 45% of nurses’ time is spent directly with patients
- Only 12% of RN time is spent teaching and providing psychosocial support
- More than 25% of RN time is spent on documentation
- Wasted activities, such as rework and delay, cost more than $1 million per year, which is more than 30% of total wage costs

The study is still in progress, but these preliminary results provided a benchmark for our findings.
We also reviewed an article classifying direct and indirect patient care by the Center for Health Services Management, University of Technology, Sydney, Australia, and an article on work sampling using random beepers by Robert L. Hanson, owner of Health System Management Services and a lecturer for the University of Washington, School of Nursing. Both of these studies provided background information for our work sampling methodology, which is explained in more detail below.

**Current Documentation Process Flowcharted**

We developed flowcharts of both units based on information from the Assistant to Chief of Nursing of the current documentation process. These flowcharts can be found in Appendix B. Both flowcharts were shown to nurses from the respective units to validate their accuracy.

**Staff Meetings Attended**

We attended staff meetings for both units to explain to the nurses the purpose of this project. We also gave a brief overview of the methodology we would be using for data collection, and addressed any questions the nurses had about the project.

**Interviews Conducted**

We interviewed nurses from February 14, 2006 to February 22, 2006 to gain a better understanding of their perception of the documentation process. Two nurses each were selected randomly from the day and night shifts in both units.

**Survey Conducted**

We developed a survey for the nurses from both units to record their satisfaction level with the current operations. We worked with Mr. Ed Karls, Manager of the Quality Improvement Department, and Ms. Linda Schwelmus, also from the Quality Improvement Department, to make the survey accessible online. It was made available to nurses the week of March 19, 2006. After two weeks of collecting the survey responses from the nurses, we analyzed the results. We collected 34 completed surveys from UH-7B/C and 10 from Mott-5E.

The survey results were used in conjunction with our other findings during the analysis and recommendation phases of the project. The survey questions can be found in Appendix C.

**Work Sampling**

We used work sampling with random beepers (a beeper which sounds an alert at random times) to get a large sample of data on the percentage of time that nurses spent doing different activities. When a beeper sounded, the nurse checked off the activity he or she was doing at that time, on a checklist that we created. The checklist and instructions for
it can be found in Appendix D. The categories included in the checklist reflected our need to quantify how much time was spent on documentation forms for each unit.

We conducted pilot studies of the work sampling tasks on February 22, 2006 for UH-7B/C and on March 2, 2006 for Mott-5E. The purpose of these initial test runs was to ensure that the nurses understood the work sampling procedure, and address any concerns. Both pilot studies were a success, with no major changes necessary in the process or the checklists. With the pilot studies completed, we proceeded to full work sampling.

We started the work sampling for Mott-5E at 3:30PM on March 13, 2006, and for UH-7B/C at 8:00 AM on March 15, 2006. For each day, we randomly selected at least one nurse from each of the three different 8-hour shifts (7:00 AM- 3:00 PM, 3:00 PM-11 PM, and 11:00 PM-7:00 AM) to carry a beeper, to cover the 24-hour duration. We also randomly selected one nurse from the 7:00 AM-7:00 PM shift and one nurse from the 7:00 PM-7:00 AM shift to measure the documentation activities done by the 12-hour shift nurses. In total, each day we randomly scheduled two nurses from Mott-5E and four nurses from UH-7B/C to carry the beepers for all times.

The schedule we created, which had the names of the nurses selected to carry the beepers, as well as ‘alternates’ in case a scheduled nurse was unavailable to participate during his or her assigned shift, was posted each week in both units. Each day, a group member checked in with each unit to address any concerns nurses might have with the procedure, and also to collect the completed work sampling forms.

The work sampling went on for 17 days for Mott-5E and 15 days for UH-7B/C. We ended the work sampling study for both units at 3:00 PM on March 29th, 2006. In total, we collected 85 work sampling forms from Mott-5E and 82 forms from UH-7B/C.

FINDINGS

Below is a summary of our key using the methods discussed previously.

Interviews

Key findings from the eight interviews we conducted included:

- Perception of the percentage of time a nurse typically spends in one shift on documentation activities ranged from 12.5% to 40%.
- All eight nurses interviewed had ideas to reduce re-work or improve the usability of specific forms.
- Each of the four nurses had ideas to reduce re-work or eliminate parts of forms.
- The nurses interviewed felt the amount of time spent on documentation activities took away time from direct patient care, and one nurse in particular felt that the
quality of patient education has suffered in the past few years due to an increase in documentation.

Complete transcripts of all interviews can be found in Appendix E. The interviews were used in conjunction with our other findings during the analysis and recommendation phases of the project.

Survey

We received 44 survey responses from the nurses (34 from UH-7B/C and 10 from Mott-5E). The break down of responders’ experience for both units is shown in Figure 1. The distributions of experience varied between the respondents from UH-7B/C and those from Mott-5E. The data shows that all of the respondents with less than 2 years of overall experience were from UH-7B/C, an important consideration to keep in mind in the interpretation of the survey results.

![Response by Unit](image)

Figure 1. Survey Respondents’ Years of Overall Nursing Experience

**Nurse Perception of Percentage of Time Spent doing Documentation Activities**

In the survey we asked the nurses “During an average shift, approximately how much of your time do you spend on nursing documentation activities that include writing, reviewing and retrieving documentation?” The results indicate that the majority of nurses felt they spent an average of 20 - 30% of their time documenting. Figure 2 shows the overall distribution of nurses’ responses.
By analyzing the results we found that there were differences between the two units in respondents' perception of the percentage of time they spent documenting. As seen below in Figure 4, for UH-7B/C the average response was 30-40% while for Mott-5E it was between 10-30%. The random work sampling, explained in more detail below, allowed us to compare these perceptions with the actual time nurses in both units spent on documentation activities.
Nurse Satisfaction with Time Spent on Documentation Activities

Nurses were asked to respond to the statement “The amount of time I spend on nursing documentation during my shift is appropriate for the number of patients I have” with a scale ranging from strongly disagree (1) to strongly agree (5). Figure 4 below shows the overall distribution of the responses.

![Overall Response Diagram]

Figure 4. Survey Respondents’ Satisfaction with Time Spent on Documentation Activities

Breaking the response down by unit, we found that for Mott-5E, the distribution of the responses is similar to the overall result, with most of the nurses’ responses being neutral. For UH-7B/C, we found that the distribution had two high points, as shown in Figure 5. This indicates that there might be a split in the satisfaction with time spent on documentation activities for that unit.
Figure 5. Survey Respondents’ Satisfaction with Time Spent on Documentation Activities, by Unit

**Individual Form Critiques**

In the last part of the survey nurses were asked to critique three forms of their choice. They were asked to rate each form in terms of clarity of instruction, ease of completion, amount of time needed, potential for errors, and the amount of redundancy with other forms. Table 1 below shows the five most common forms that nurses from UH-7B/C chose to critique. The most critiqued form for this unit was the Subjective Objective Assessment Plan (SOAP). The main concern for this form was that there is redundancy between it and other forms. The summary of all the comments and survey results for UH-7B/C can be found in Appendix F.

Table 1. Five Most Critiqued Forms for UH-7B/C

<table>
<thead>
<tr>
<th>Form</th>
<th>Count</th>
<th>Clarity of Instruction (1-Poor, 5-Excellent)</th>
<th>Ease of completing (1-Poor, 5-Excellent)</th>
<th>Amount of time (1-Poor, 5-Excellent)</th>
<th>Potential for errors (1-V. High, 5-V.Low)</th>
<th>Redundancy (1-V. High, 5-V.Low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective Objective Assessment Plan (SOAP)</td>
<td>11</td>
<td>3.0</td>
<td>3.1</td>
<td>3.0</td>
<td>2.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Adult Critical Care Flowsheet</td>
<td>5</td>
<td>3.8</td>
<td>3.6</td>
<td>2.4</td>
<td>3.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Advance Directive Declaration Form</td>
<td>5</td>
<td>2.2</td>
<td>2.6</td>
<td>3.6</td>
<td>2.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Nursing Problem List</td>
<td>5</td>
<td>3.0</td>
<td>4.2</td>
<td>4.0</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Cardiology Procedures Unit Preprocedure Checklist</td>
<td>4</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.5</td>
<td>1.8</td>
</tr>
</tbody>
</table>
The three most critiqued forms for Mott-5E are shown below in Table 2. The two most critiqued forms for this unit was the Discharge Summary SOAP or Discharge Navigator and the Nursing Transfer Summary. The main concern for these forms was that there is a lot of redundancy between them and other forms. The summary of all the comments and survey results for Mott-5E can be found in Appendix G.

Table 2 Three Most Critiqued Forms for Mott-5E

<table>
<thead>
<tr>
<th>Form</th>
<th>Count</th>
<th>Clarity of instruction (1-Poor, 5-Excellent)</th>
<th>Ease of completing (1-Poor, 5-Excellent)</th>
<th>Amount of time (1-Poor, 5-Excellent)</th>
<th>Potential for errors (1-V. High, 5-V. Low)</th>
<th>Redundancy (1-V. High, 5-V. Low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge Summary SOAP Note or Discharge Navigator</td>
<td>5</td>
<td>3.0</td>
<td>2.4</td>
<td>2.4</td>
<td>3.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Nursing Transfer Summary</td>
<td>5</td>
<td>4.0</td>
<td>3.6</td>
<td>2.8</td>
<td>3.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Pediatric 24 hour Patient Care Flow Sheet</td>
<td>3</td>
<td>4.3</td>
<td>3.7</td>
<td>4.0</td>
<td>3.7</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Work Sampling Results

From our work sampling analysis, we quantified the percentage of time that nurses spent doing various kinds of nursing care activities. We also determined the most frequently used documentation forms for each unit, and the most frequent tasks that were involved whenever the nurses had to multitask. We then used proportion testing to determine whether there were significant differences spent on documentation between different classifications, such as nurse experience, shift, and job classification. The following are descriptions of our findings from the work sampling analysis.

Comparison of the Percentage of Time Nurses Spent on Nursing Care Activities in Mott-5E and UH-7B/C

Figure 6 and Figure 7 below show the breakdown of the percentage of time the nurses in both units spent doing various nursing care activities.
Figure 6. Percentage of Time Nurses Spent on Nursing Care Activities for Mott-5E

- Sample size: 1,147
- Date collected: March 13-March 29, 2006

Figure 7. Percentage of Time Nurses Spent on Nursing Care Activities for UH-7B/C

- Sample size: 1,061
- Date collected: March 15-March 29, 2006
As shown in Figure 6 and Figure 7, the nurses in UH-7B/C spent more time on documentation activities than the nurses in Mott-5E. The nurses in UH-7B/C spent 21% of their time on documentation activities, while the nurses in Mott-5E spent 18% of their time doing documentation tasks. Proportion testing revealed that this difference is statistically significant. The nurses in UH-7B/C spent less time on direct patient care compared to the nurses in Mott-5E. We found that they spent 30% of their time on direct patient care, which is 3% less than the amount of time spent by the nurses in Mott-5E. The nurses in these two units spent approximately the same amount of time on other types of other nursing care activities, such as indirect patient care, meetings, phone calls and lunches or breaks.

**Comparison of the Type of Documents Most Frequently Used in Mott-5E and UH-7B/C**

Figure 8 and Figure 9 below show the four items of documentation most frequently used in each unit. The percentages shown in these two charts are taken out from the total percentage of time spent by nurses on all documentation activities.

![Bar chart showing the most frequently used items of documentation for Mott-5E and UH-7B/C.]

**Figure 8. Most Frequently Used Items of Documentation for Mott-5E**

<table>
<thead>
<tr>
<th>Item</th>
<th>Mott-5E</th>
<th>UH-7B/C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Flow Sheet</td>
<td>37.07%</td>
<td></td>
</tr>
<tr>
<td>MAR</td>
<td>28.29%</td>
<td></td>
</tr>
<tr>
<td>Nursing Care Kardex</td>
<td>6.83%</td>
<td></td>
</tr>
<tr>
<td>Discharge Summary SOAP note</td>
<td>4.88%</td>
<td></td>
</tr>
<tr>
<td>Others*</td>
<td>22.93%</td>
<td></td>
</tr>
</tbody>
</table>

Sample size: 205
Date collected: March 13-March 29, 2006

* Other selected documents
As shown in Figure 8 and Figure 9, the two most frequently used forms in these two units are the Daily Flowsheet and the Medical Administrative Records (MAR). This result is expected because the both of these forms must be filled out several times per day in order to record a patient's recovery progress and to keep track of the medications that are being administered to a patient. Nurses in Mott-5E spent 37% of their documentation time filling out the Daily Flowsheet, while nurses in UH-7B/C spent 32% of their total documentation time filling out the Flowsheet.

From our analysis, we found that the nurses in Mott-5E spent less than 1% of their total documentation time working on the Subjective Objective Assessment Plan (SOAP) Note, while the SOAP Note is the third most used form for UH-7B/C. We also found that overall, the nurses in Mott-5E spent more time on discharge documents than admission documents, while the nurses in UH-7B/C spent more time on admission documents than discharge documents. The nursing admission assessment form, which is one of the admission forms for UH-7B/C, is the fourth most used document for the unit. For Mott-5E, the fourth most used document is the Discharge Summary SOAP note. This form is one of the two discharge forms used in the Mott-5E unit.

**Comparison of the Tasks Involved in Multitasking in Mott-5E and UH-7B/C**

As the charts in Figure 6 and Figure 7 show, we found that the nurses from both Mott-5E and UH-7B/C spend 11% of their total working time multitasking. Figure 10 and Figure
Show a summary for each unit of the most frequent activities involved whenever nurses multitasked.

Figure 10. Most Frequent Multitasking Activities for Mott-5E

Figure 11. Most Frequent Multitasking Activities for UH-7B/C
For both units, the most frequent combination of activities done when the nurses multitasked was direct patient care while filling out the daily flowsheet. The nurses in Mott-5E spent 18% of their multitasking time working on these two activities together, while the nurses in UH-7B/C spent 13% of their multitasking time working on these two tasks.

Another common multitasking activity for these two units was indirect patient care while filling out the daily flowsheet. The nurses in Mott-5E spent 7% of their multitasking time and the nurses at UH-7B/C spent 8% of their multitasking time doing these two activities together. Indirect patient care and the MAR form were also frequently performed together; nurses in Mott-5E spent 11% of their multitasking time and nurses in UH-7B/C spent 7% of their multitasking time completing these two tasks.

Table 3 below shows the total percentage of time spent on each nursing care activity for both units.

<table>
<thead>
<tr>
<th>UH-7B/C Activities Break Down</th>
<th>Mott-5E Activities Break Down</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activities</strong></td>
<td><strong>Number of Checks</strong></td>
</tr>
<tr>
<td>Direct Patients Care</td>
<td>316</td>
</tr>
<tr>
<td>Indirect Patient Care</td>
<td>166</td>
</tr>
<tr>
<td>Multi-tasking</td>
<td>127</td>
</tr>
<tr>
<td>Other</td>
<td>97</td>
</tr>
<tr>
<td>Lunch / Break</td>
<td>71</td>
</tr>
<tr>
<td>Flow Sheet</td>
<td>70</td>
</tr>
<tr>
<td>MAR</td>
<td>50</td>
</tr>
<tr>
<td>Phone Call</td>
<td>37</td>
</tr>
<tr>
<td>SOAP note</td>
<td>22</td>
</tr>
<tr>
<td>Nursing Admission Assessment</td>
<td>20</td>
</tr>
<tr>
<td>Meeting</td>
<td>19</td>
</tr>
<tr>
<td>Other Documentations</td>
<td>19</td>
</tr>
<tr>
<td>Nursing Care Kardex</td>
<td>12</td>
</tr>
<tr>
<td>Discharge Instr. &amp; Educ. Form</td>
<td>7</td>
</tr>
<tr>
<td>Blood Administration Sheet</td>
<td>6</td>
</tr>
<tr>
<td>Nursing Care Plan</td>
<td>5</td>
</tr>
<tr>
<td>Discharge Navigator</td>
<td>4</td>
</tr>
<tr>
<td>Discharge Summ. SOAP note</td>
<td>3</td>
</tr>
<tr>
<td>Advance Directive</td>
<td>1</td>
</tr>
<tr>
<td>Inv. of Patient Belonging</td>
<td>1</td>
</tr>
<tr>
<td>Fall Risk Package</td>
<td>1</td>
</tr>
<tr>
<td>MR Questionnaire</td>
<td>1</td>
</tr>
<tr>
<td>Nursing Transfer Summary</td>
<td>1</td>
</tr>
<tr>
<td>Nursing Problem List</td>
<td>0</td>
</tr>
<tr>
<td>Cardiology Procedure</td>
<td>0</td>
</tr>
</tbody>
</table>
Of note is that seven forms for UH-7B/C and ten forms for Mott-5E were never checked off during the work sampling period.

Work Sampling Validation

In order to validate satisfactory participation in the work sampling process, we checked the actual number of columns checked off for all work sampling forms versus the expected total. Table 4 below shows this calculation for both units.

Table 4. Expected vs. Actual Number of Columns Checked for Both Units

<table>
<thead>
<tr>
<th>Expected Number of Columns Checked for UH-7B/C</th>
<th>Expected Number of Columns Checked for Mott-5E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Duration</td>
<td>Total Duration</td>
</tr>
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<td>Expected Number of Columns Checked</td>
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<td>1333.3 Columns</td>
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<td>Actual Number of Columns Checked</td>
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<tr>
<td>1061 Columns</td>
<td>1147 Columns</td>
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</table>

The data shows that overall participation was satisfactory, as the actual versus expected totals do not differ by a large magnitude. The reason for the greater deviation between expected and actual number of columns checked for UH-7B/C is due to problems with the beeper batteries midway through the study, which was corrected within 24 hours.

Time Studies

Time Studies were performed the week of April 9 to further validate the work sampling through direct observation. Table 5 shows the results for both units.
Comparing these results to the work sampling findings, it can be seen that the data for different kinds of activities are relatively similar. The time studies contain a greater percentage of time represented as multi-tasking, representing a potential bias in the work sampling data towards underestimating multi-tasking activities. Other differences in the work sampling and time studies could be due to the duration of the time studies which were shorter than the work sampling period, leaving open the possibility of missing activities that would be evident from a 24 hour sample.

**Proportion Testing to Identify Key Factors Affecting Time Spent on Documentation**

The next phase of our analysis of the work sampling results was to stratify the data to find significant input factors. We did this to find if there was a statistically significant difference in the amount of time nurses with different levels of experience, working different shifts, or having different job classifications spent on documentation. An explanation of the significant relationships we explored follows.

**Factors Tested**

**UMHS Experience** - Statistical comparisons were made between nurses who had greater than five years of experience working at a University of Michigan Hospital (UMH), those who had worked for one to five years for UMH, and those who had worked for less than a year at UMH.

**Overall Nurse Experience** - Statistical comparisons were made between nurses who had greater than five years of experience, those who had one to five years of experience, and those who had less than a year of experience.

**Nursing Job Classification** - Statistical comparisons were made between nurses classified as Clinical Nurse I (CNI) and those classified as Clinical Nurse II (CNII).

**Shift** - Statistical comparisons were made between each of the five different shifts nurses worked (three eight hour shifts and two twelve hour shifts).

We then conducted proportion testing for each factor to see if the percentage of time spent on documentation differed. A proportion test compares two samples against each other and tests whether the difference in them is statistically significant. Table 6 and
Table 7 show the results of all Proportion Tests for both units. Those that were found to have a statistically significant difference are in bold. Each row shaded in gray represents a pair of samples tested against each other. The row below is the percentage of time nurses spent on documentation. For example, for Table 6, the first row in gray presents the proportion test for nurses with > 5 years of experience at UMH and < 1 year of experience at UMH. The bold entry indicates that the difference in time spent on documentation (19% for nurses with > 5 years of experience at UMH and 27% for nurses with < 1 years of experience at UMH) is statistically significant.

Table 6. Proportion Testing Results for UH-7B/C

<table>
<thead>
<tr>
<th>% of Time Spent on Documentation Activities</th>
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<tr>
<td>&gt; 5 Years of Experience at UMH</td>
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<tr>
<td>&gt; 5 Years of Experience at UMH</td>
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<td>23%</td>
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<td>12 Hour Day Shift</td>
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<tr>
<td>22%</td>
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Table 7 Proportion Testing Results for Mott-5E
CONCLUSIONS

We met with the Head Nurses from both units and the Assistant to Chief of Nurses to discuss our findings. The Head Nurse for UH-7B/C felt that the reason that nurses with <1 year of experience at UMH spent more time on documentation than other nurses was a function of the more experienced nurses having a greater level of familiarity with the documentation procedure, allowing them to be more efficient.

At Mott-5E, the inverse was true, as nurses with >5 years of experience at UMHS spent more time on documentation than nurses with <5 years of experience. The Head Nurse for Mott-5E felt that this could be because the more experienced nurses have a more
thorough understanding of all documentation which must be completed, and pride
themselves on a high standard of care. She also stated her belief that the reason that the
eight hour evening shift had the most time spent on documentation was because a
majority of the Admission, Discharge, and Transfer (ADT) activity for Mott-5E takes
place during the late afternoon and early evening. This relationship is not present at UH-
7B/C because the average discharge time there is earlier in the afternoon.

The Head Nurses from both units believed that the items of documentation that were not
checked off during the work sampling period were because the situation where those
forms would be used did not occur. They did not think it was due to neglect of forms.
The work sampling analysis was used in conjunction with the survey and interview
results to develop recommendations to improve the documentation process.

RECOMMENDATIONS

From our discussion of our findings with the Head Nurses and Assistant to Chief of
Nurses, and our interviews and survey results from nurses in both units, we developed
recommendations to improve the efficiency of the documentation workflow. The
recommendations are unique for both units.

We proposed changes to the forms that were critiqued most frequently on survey and
interview responses and to the forms that were taking the greatest percentage of nursing
care time as determined by our work sampling analysis.

Recommendations for UH-7B/C

The most critiqued form in this unit from the survey and interview responses was the
SOAP note. Our work sampling analysis showed that the SOAP note was one of the most
frequently used forms for the unit as well. Therefore, we proposed changes to the SOAP
note based on observation and input received from the nurses. Many nurses felt that this
piece of documentation was redundant, requiring much of the same information as the
Flowsheet, and that it was required to be filled out more frequently than necessary. In
meeting with the Head Nurses and Assistant to Chief of Nursing, they stressed that the
information the SOAP note should contain was not intended to be a replication of the
Flowsheet. Therefore, one of our recommendations would be to increase nurse
awareness of the exact purpose and role of the SOAP note in the documentation process,
especially regarding what information should go on the SOAP, and how often it should
be completed.

Nurses also felt that the SOAP note was not structured enough, as it is blank except for
lines to write on it. To increase the clarity of the SOAP note, as well as to save time in
completing, we suggest a re-design of the form. The re-designed form is more structured,
with sections for each part of the SOAP, as well as check boxes where certain items, such
as heart rate, could be completed faster. A prototype of the re-design can be seen below in Figure 12.

Figure 12 Prototype of Re-designed SOAP Note

The second recommendation that was made for this unit is for the Nursing Admission Assessments. There are eight different forms for the admission process in the UH-7B/C unit, and filling out these eight different forms is time consuming. Therefore, we recommend that all eight forms be grouped into one package, so that the amount of time the nurses spend looking for all forms related to admission can be reduced.

We also recommend that nurses with less than one year of experience with UMHS be given more training on documentation procedures in order to complete documentation tasks more quickly if possible.

By implementing these recommendations, we hope to reduce the amount of time nurses in UH-7B/C spend on documentation activities. It should be noted that these
recommendations are untested, and further prototypes and studies should be developed in order to gauge the effectiveness of any change.

We also developed recommendations and suggestions for other documentation forms used in UH-7B/C. These other forms are not used as frequently; therefore, the recommendations are only developed as minor changes that can be done to improve the overall efficiency of the nursing documentation tasks. The recommendations for these forms can be found in Appendix H.

**Recommendations for Mott-5E**

The most critiqued form in the Mott-5E unit as indicated by the survey and an interview response is the Subjective Objective Assessment Plan (SOAP) note. The work sampling analysis also shows that the SOAP note is one of the most frequently form for the unit as well. The comments from the interviews and survey were similar to those stated above for UH-7B/C. Therefore, we recommend the SOAP note be changed in the ways detailed above.

We also proposed changes be made to the daily Flowsheet. Our work sampling analysis showed that nurses spent almost 2 hours a day filling out this form. There is also redundancy present between the 'Patient Care' portion of the Flowsheet and the CHC Patient Education Record. Therefore we suggest that this portion of the Flowsheet be eliminated if possible and any additional information it contains be added to the CHC Patient Education Record.

The third recommendation that we made for this unit was to the discharge related forms, the Discharge Summary (SOAP) note and the Discharge Navigator. The survey and interview responses indicated that nurses felt that these two forms are redundant, increasing the amount of paperwork that must be completed without a justifiable benefit. Furthermore, nurses felt that the Discharge Navigator sometimes confuses parents because some of the information provided in it is already covered in the medication discharge form. We recommend that the Discharge Summary be incorporated into the Discharge Navigator package found in CareWeb. We also recommend that Discharge Navigator information be compared to the MD Discharge Forms, and redundancies between the two be eliminated or synchronized in order to reduce re-work and confusion among patients.

We also recommend that less experienced nurses be given information and training detailing every form that must be completed, to ensure that they are aware of when each form must be used.

By implementing these recommendations, we hope to reduce the amount of time the nurses in Mott-5E spend on documentation activities.
Other recommendations for forms used infrequently for this unit can be found in Appendix I.

The intent of these recommendations is to reduce the amount of time nurses spend on documentation activities that do not value to the process. Other potential benefits of implementation of these recommendations include:

- Increased patient and nurse satisfaction
- Reduced percentage of time spent on documentation
- Reduced amount of documentation errors by nurses
- Reduced amount of re-work
- Increased standardization and understanding of the documentation process
- Reallocation of time previously needed for documentation to other value added activities

We recommend that the next phase of this project explore the implementation of these recommendations more thoroughly than the scope and time available for our study allowed. Forms should be modified in conjunction with staff input and JCAHO regulations. Work sampling should then be performed to quantify improvements and reductions in the time spent on documentation activities.
# Appendix A Group Members Contact Information

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<tr>
<th>Group Member</th>
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<th>Phone Number</th>
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<tr>
<td>Ongart Atiset</td>
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<tr>
<td>Nor Afzan Aziz</td>
<td>afzan</td>
<td>734-565-4506</td>
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<tr>
<td>Shiyin Hu</td>
<td>shiyinhu</td>
<td>617-412-8375</td>
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<tr>
<td>Christopher Perry</td>
<td>caperry</td>
<td>248-719-2786</td>
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</table>
Appendix B Current State Flowcharts of Both Units

Nursing Documentation Process Flowchart For UH-7B/C

1. **Functional Health Assessment: Adult**
   - Advance Directive Declaration Form RP-2201123
   - Inventory of Patient Belongings, Money & Valuables 2203240
   - Nursing Problem List (Dependent on Patient Symptom)
   - Nursing Care Plan (Dependent on Patient Symptom)

2. **Nursing Care Kardex 2060073 Rev. 11/87**
   - Medical Administration Record (MAR) 2202013
   - Physician’s Orders Admit/Service Change
   - Subjective Objective Assessment Plan (SOAP) H-2042288 (depend on condition)
   - Adult Critical Care Flowsheet 2201844

3. **Documentation Checklist**
   - Is Patient at risk to fall?
   - Is Patient going to surgery?
   - Does patient surgery involve cardiology?
   - Is Patient going to MRI?

4. **Fall Risk Package 2202016**
   - O.R. / Diagnostic Checklist / Procedure Checklist RP-2060965/PP
   - Cardiology Procedures Unit Preprocedure Checklist
   - Patient Questionnaire For MR POD-0023

5. **Is patient being transferred to another unit?**
   - Yes
   - Nursing Transfer Summary 2054190
   - Medical / Surgical Restriction Physician Order 2202278
   - Transfusion Reaction Report and consultation request form PS 715
   - Blood Administration Sheet

6. **Does patient require restraint?**
   - Yes
   - Medical / Surgical Reaction Report Blood
   - Transfusion II
   - Nursing Transfer Medical/Surgical Reaction Report Blood

7. **Is patient being discharged?**
   - Yes
   - Discharge Navigator Note Or Discharge Instruction/ Education
   - Death Package PM-2040062/PP
Appendix C On-Line Survey

Nursing Documentation Survey

1. Introduction

The information you provide will be kept confidential and will only be used to analyze the nursing documentation process and to plan enhancements and improvements to the documentation process. Thank you for your time!

1. Indicate your years in nursing:
   - Less than 2 years
   - More than 2 years, less than 5 years
   - More than 5 years, less than 10 years
   - More than 10 years, less than 20 years
   - More than 20 years

2. Indicate the amount of time you have worked at UMH8:
   - Less than 2 years
   - More than 2 years, less than 5 years
   - More than 5 years, less than 10 years
   - More than 10 years, less than 20 years
   - More than 20 years

3. Your classification:
   - CNI
   - CNII
   - Other (please specify)

4. Using a scale where 1 means Strongly Disagree and 4 means Strongly Agree, please rate the following statements. If the question does not apply to you, simply mark N/A.

   The amount of time I spend on nursing documentation during my shift is appropriate for the number of patients I have.

   It is easy for me to find the documentation forms I need.

5. During an average shift, approximately how much of your time do you spend on nursing documentation activities?
   - Less than 5%
   - 5 - 10%
   - 10 - 20%
   - 20 - 30%
   - 30 - 40%
   - 40 - 50%
   - More than 50%

6. Which unit do you work in?
   - UH 7B/C
   - Mott SE
   - Other

Next >>
Nursing Documentation Survey

6. Critique a Form – 7/3/0:

You will now be given the opportunity to critique THREE forms that you use.

Select a form from the list below for which you want to see improvement or you think is unnecessary. After you have chosen a specific form you will be asked to rate it on different aspects. (Please remember which form you selected!)

7. Select the first form you'd like to critique
   - Adult Critical Care Flowsheet
   - Advance Directive Declaration Form
   - Blood Administration Sheet
   - Cardiology Procedures Unit Preprocedure Checklist
   - Death Package
   - Discharge Navigator Note Or Discharge Instruction/ Education
   - Documentation Checklist
   - Fall Risk Package
   - Functional Health Assessment: ADULT
   - Inventory of Patient Belongings, Money & Valuables
   - Medical/Surgical Restraint Physician Order
   - Medical Administration Record (MAR)
   - Medically Necessary Physical Restraint Flowsheet (Acute Medical/Surgical Care)
   - Nursing Care Kardex
   - Nursing Care Plan
   - Nursing Problem List
   - Nursing Transfer Summary
   - O.R. / Diagnostic Checklist / Procedure Checklist
   - Physician’s Orders Admit/Service Change
   - Subjective Objective Assessment Plan (SOAP)
   - Transfusion Reaction Report and consultation request form
   - Other (please specify)

B. Please rate the FORM you have selected, using the scale where 1 means Poor and 5 means excellent.

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<thead>
<tr>
<th></th>
<th>1 - Poor</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 - Excellent</th>
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<td>Ease of completing/filling in</td>
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<< Prev   Next >>
19. Please provide any additional suggestions to improve the nursing documentation process or any other comments that you'd like to share.
WORK SAMPLING FORM INSTRUCTIONS

Please follow the steps listed below each time you receive a blank form and random beeper.

1. Record the date, starting and ending time of the study, the number of patients which are assigned to you for the current shift, your job class and your experience (number of years you have worked as a nurse in UMHS, and your overall experience in nursing).

2. Attach random beeper and turn it on. You can set the beeper either to vibrate or beep. The beeper will go off approximately two times per hour.

3. When the beeper sounds the first time, find the action you were doing on the work sampling chart.

4. Place a check in the first empty column in the appropriate box.

5. If you were doing more than one activity (for example, filling out flow sheet while giving direct patient care), place checks in both the "flow sheet" and "direct patient care boxes" in the first column. Documentation activities include both reviewing and filling out the document.

6. Place a check in the "Actions" box at the top row ("Actions") to indicate which column has been filled out. So, for the first beep, check off the box with "1" in it.

7. Repeat steps 3 through 6 each time.

8. When your shift is over, please turn off the beeper and return it to the designated place.

Examples of Direct Patient Care — all nursing care activities performed in the presence of the patient and/or family, such as administration of medication, all treatments and procedures, obtaining specimens, basic physical care (grooming, eating), and patient education.

Examples of Indirect Patient Care — all nursing care activities performed away from the patient but on their behalf, such as communicating with other providers, seeking consultation, preparing equipment, gathering supplies, and preparing medications.

Raglio et al., 2000
### Nursing Documentation Study - UH7B/C

**Date:**

**UMHS Nursing Experience (years):**
- < 1 □ 1-5 □ > 5 □

**Start Time:**

**Overall Nursing Experience (years):**
- < 1 □ 1-5 □ > 5 □

**End Time:**

(# Patients Assigned Today:)

**(Instruction for filling in the form is on the back)**

**Job Class:**
- CN I □ CN II □ Other □

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Comments:
Appendix E Transcripts of Nurse Interviews

UH-7B/C Day Shift Interview 1

Job Class: CN II
Experience in UMHS: 3 years

How much time do you think you spend on nursing documentation activities (percentage)?
20-25%

Which forms do you spend the most time documenting?
MAR
SOAP Note
Flow sheet

Are there any forms which you think are unnecessary? If so, why?
Problem Summary Sheet – it’s the exact same as the Nursing Care Plan

Are there any specific parts of certain forms that you think are unnecessary? If so, why?
Some sections of the MAR are worded poorly or grouped out of order

Do think there are any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?
No

Are there specific areas in which you think nursing documentation can be improved?
The admission documentation should all be on one sheet; it would be much easier and efficient if they were all attached.

If a form you need is missing, what do you do and, if necessary, who do you go to for help?
Ask the clerk, or go to a different unit which has a form available (this situation is uncommon)

(Show them flowchart for their unit) Do you see any errors or missing documentation on this flowchart?
Not Really.

Do you have any additional comments or any suggestions?
Nursing documentation takes away from patient time, “it is a problem”.

UH-7B/C Day Shift Interview 2

Job Class: CN II
Experience in UMHS: 3.75 years

How much time do you think you spend on nursing documentation activities (percentage)?
30-40%

Which forms do you spend the most time documenting?
MAR
SOAP Note
Flow sheet

Are there any forms which you think are unnecessary? If so, why?
SOAP note
- A lot of redundancy (unless there is an issue with the patient) because everything is already on the flow board / flow sheet
- A lot of nurses just duplicate the information from the flow sheet to the SOAP note, waste of time

*Are there any specific parts of certain forms that you think are unnecessary? If so, why?*

The Cardiology Procedure Unit Pre-procedure Checklist
Most of the information is on the MR sheet and on the board.
Why not just send the whole flowboard.
The time that you spend filling this form in might be higher than the time if they just send the board itself.

*Do think there are any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?*

In summary, forms where nurses need to copy from other forms could lead to mistakes

- SOAP note, copying stuff from flow board
- Cardiology Procedure Unit Pre-procedure Checklist
- Lab test result sometime has to copied onto the flowsheet. Why not just stick it in there instead of rewriting everything down again.

*Are there specific areas in which you think nursing documentation can be improved?*

- The SOAP note should reflect the Care Plan more. Instead of having them blank may be have pre-specify sections, boxes, and location where they can put specific stuff like heart rate etc.
- SOAP note can be incorporated into the flow sheet.

She mentioned that many nurses have to stay after work to finish some of the forms.
"They added more paper" in the past few years. She said that there are more forms now than 3 years ago when she started.

*If a form you need is missing, what do you do and, if necessary, who do you go to for help?*

- Most of the forms are online, if not there -> File Cabinet in B then File Cabinet in C.
- If still cannot find the form go talk to this lady called Anida? who is in charge of stocking all the forms.
- Form with the most problem, Education?? Not sure about this

*(Show them flowchart for their unit) Do you see any errors or missing documentation on this flowchart?*

Not Really.

*Do you have any additional comments or any suggestions?*

Patient Load ↑
Form ↑
Patient Care & Education↓
- Nursing Kardex not thorough enough.
- Nurses at the end of the shift sometime have to pass on information verbally which could get lost if not on the Kardex.
- She usually looks up information on Careweb – where there is more information.
- Careweb – Physicians put patient progress and other info there.

She used to work in Henry Ford Hospital in Detroit. She said that in her old hospital there were more cooperation between nurses and physicians here they are more separate.

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**UH-7B/C Night Shift Interview 1**

**Job Class:** CN I
**Experience in UMHS:** 6 months

**How much time do you think you spend on nursing documentation activities (percentage)?**
Day: 15% Night:20%
Which forms do you spend the most time documenting?
Night: MAR, reconciliation (review work of the shift with the nurse who will take over the job), flow sheet
Day: discharge paper, nurse notes, admission notes (mostly)

Are there any forms which you think are unnecessary? If so, why?
Nurse progress notes. A lot of information is on flow sheet

Are there any specific parts of certain forms that you think are unnecessary? If so, why?
Discharge paper shares some same information with discharge navigate (doctor's discharge paper)

Do think there are any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?
MAR
When new medication is ordered, timing of medicine is not visible. Sometimes nurses highlight the timing of new order but sometimes don’t.

Are there specific areas in which you think nursing documentation can be improved?
Make nursing progress notes be available online. Make 24 hr flow board be available online. Besides Each patient’s bed, there should be an internet connect computer for nurses or doctor to use for documenting.
If a form you need is missing, what do you do and, if necessary, who do you go to for help?
Look around and talk to clerk. If MAR is missing, nurses have to refill it. It takes about 30 mins. However, it doesn’t happen that often.

Do you have any additional comments or any suggestions?
For the first page of discharge form, there are only genetic names for medicine instead of brand names which patients are familiar with. Nurses have to translate genetic names to brand names. It also uses a lot of abbreviation which patients don’t understand.

UH-7B/C Night Shift Interview 2

Job Class: CN I
Experience in UMHS: 11 and half years (only doing night shift)

How much time do you think you spend on nursing documentation activities (percentage)?
Night: 25%

Which forms do you spend the most time documenting?
Assessment on the back of flow sheet

Are there any forms which you think are unnecessary? If so, why?
Nursing care plan and nursing diagnosis will not affect anything and nobody cares.

Are there any specific parts of certain forms that you think are unnecessary? If so, why?

Are there any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?
PRN means as needed. Sometimes doctors forget to write PRN on the preprint order

Are there specific areas in which you think nursing documentation can be improved?
Give a PRN check box

If a form you need is missing, what do you do and, if necessary, who do you go to for help?
Go online. Go around and ask.

(Show them flowchart for their unit) Do you see any errors or missing documentation on this flowchart?
No

Do you have any additional comments or any suggestions?
No

Mott-5E Day Shift Interview 1

Job Class: CN II
Experience in UMHS: 8 years

How much time do you think you spend on nursing documentation activities (percentage)?
12.5 to 18.75%

Which forms do you spend the most time documenting?
SOAP Notes, Discharge Navigator

Are there any forms which you think are unnecessary? If so, why?
Discharge Navigator – Docs fill out a similar form already, so it's a duplicate
Nursing Transfer Summary – very repetitive, information already included in the SOAP Notes

Are there any specific parts of certain forms that you think are unnecessary? If so, why?
No

Do think there are any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?
Discharge Navigator – parts skipped over

Are there specific areas in which you think nursing documentation can be improved?
Several forms kept in different areas – to solve this, all documentation should be kept at the bedside

If a form you need is missing, what do you do and, if necessary, who do you go to for help?
Go to clerk first, then look through file cabinets – this situation happens on a daily basis

(Show them flowchart for their unit) Do you see any errors or missing documentation on this flowchart?

Do you have any additional comments or any suggestions?
The amount of documentation required to be filled out has increased in the past 2-3 years, this takes time away from patients

Mott-5E Day Shift Interview 2

Job Class: CN II
Experience in UMHS: 35 years

How much time do you think you spend on nursing documentation activities (percentage)?
Significant

Which forms do you spend the most time documenting?
FHA, Discharge Navigator, Flow Sheet

Are there any forms which you think are unnecessary? If so, why?
Discharge Navigator – only good for new cardiac patients, they just need one blank sheet to include patient education information, the rest is redundant – this process needs to be streamlined.

Are there any specific parts of certain forms that you think are unnecessary? If so, why?
Every component of the Discharge Navigator is redundant except the Patient Education Transfer Summary – already in Orders and Kardex, it is redundant
Braden Q – the skin assessment must be adapted for children, for example ‘walks frequently’ is not applicable to babies
Fall Risk Assessment – the criteria is poor ‘6 and older’ and ‘6 or more’ portions are not appropriate

Do think there are any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?
Discharge Navigator – because there is redundancy, there can be conflicting information with what Doctors wrote
Meds – she’s caught errors before

Are there specific areas in which you think nursing documentation can be improved?
Nurse Referral Form – this should be a part of the Health Assessment
Advanced Directive – this should be done at the clinic before the patient is admitted, it also requires a co-signer, which can be difficult to find once admitted
Education Record – updated every day, it should go in the discharge navigator

(Show them flowchart for their unit) Do you see any errors or missing documentation on this flowchart?
Diabetic Log

Do you have any additional comments or any suggestions?
Patients really feel that nurses are not around enough

Mott-5E Night Shift Interview 1

Job Class: CN I
Experience in UMHS: 5 and half years

How much time do you think you spend on nursing documentation activities (percentage)?
15%

Which forms do you spend the most time documenting?
Flow sheet

Are there any forms which you think are unnecessary? If so, why?
Discharge navigator because nurses recopy physician notes.

Are there any specific parts of certain forms that you think are unnecessary? If so, why?
They are all necessary.

Do think there are any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?
MAR: it is easy to miss information. It is hard to make changes and figure out the changes

Are there specific areas in which you think nursing documentation can be improved?
Eliminate patient education part on discharge form

If a form you need is missing, what do you do and, if necessary, who do you go to for help?
Find by themselves

Mott-5E Night Shift Interview 2
Job Class: CN II
Experience in UMHS: 9 years

How much time do you think you spend on nursing documentation activities (percentage)?
20%

Which forms do you spend the most time documenting?
Flow sheet

Are there any forms which you think are unnecessary? If so, why?
Nursing problem list: resolved part is rarely filled

Are there any specific parts of certain forms that you think are unnecessary? If so, why?
Patient education part on flow sheet is hardly filled because people forget to fill it out and this part is redundant because it overlaps with CHC Patient Education which is required by JACO.
Transfer sheet is hardly used because it is just introduced to the Mott. No instructions are taught for filling this form.
SOAP is supposed to be filled out every 3 days but nurses do not fill it out that often.

Do think there are any forms or specific parts of certain forms that lend themselves to making mistakes? If so, why?
MAR: it is easy to make mistake because people fill it out differently.

Are there specific areas in which you think nursing documentation can be improved?
Braden Q which is required by JACO is barely used because very few patients in Mott have some conditions like pressure sores. It is hard to understand the form and fill it out.

If a form you need is missing, what do you do and, if necessary, who do you go to for help?
Go to ask clerk
Have to redo it but it happened very few times
Nurses will spend some time to look for Kardex because some physician will take them out of the conference room. Suggest that use it inside the conference room instead of taking it out.

Thank you very much for your time and help.
Appendix F Summary of the UH 7B/C survey results and comments

<table>
<thead>
<tr>
<th>Form</th>
<th>Count</th>
<th>Clarity of Instructions (1-Poor, 5-Excellent)</th>
<th>Ease of Completing (1-Poor, 5-Excellent)</th>
<th>Amount of Time (1-Poor, 5-Excellent)</th>
<th>Potential for Errors (1-V. High, 5-V. Low)</th>
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**Subjective Objective Assessment Plan (SOAP)**
- Soap notes are unnecessary in view of the flowsheet. It also leaves room for attorney scrutiny if there is a lawsuit.
- I feel it is extra work for nurses to SOAP daily on our patients. I understand if something serious were to happen to a patient, there is definite need to document, but 8-9/10 it's redundant.
- most of what is charted in soap can be found on flowsheet. Notes can be left on flowsheet and it would save time since already @ bedside.
- usually most info is found on the flow sheet
- Again, very few people read the soap notes. I think they will be read moer often when they are posted on the computer. Nurses are also more likely to add additional comments if they just have to type

**Adult Critical Care Flowsheet**
- It should be possible to fill out the form only once if I work a 12 hours shift, not 7-3pm and 3p-12MN! I could just update reassessment,. It is done like that on all ICU’s. Some of it is again repeat
- All check boxes and not much room to write

**Advance Directive Declaration Form**
- conflicting info from others as to how to fill out. Initialing checked boxes?

**Nursing Problem List**
• Absolutely no one looks at this piece of documentation and this info is also on the care plan itself.

**Cardiology Procedures Unit Preprocedure Checklist**
• pt is transported with the nursing flow sheet and the pt's med records which contain all the information on the CPU check list, it's redundant to document everything again on yet another paper.
• we should not have to fill this out, since they take the med sheets and the flow sheet, which has the same info on it.

**Functional Health Assessment: ADULT**
• Most of the questions on page 1 are a waste of time. For instance, asking if you can call the patient by their first name. who looks at that?
• It is redundant for the patients to reanswer the same questions by many disciplines. It can take a long time to fill out if the patient wants to talk. I can spend up 25' filling forms before admis.

**Nursing Care Kardex**
• Kardex should be updated on the patient's hospital course, almost never done, not much space either
• Can be messy, especially if old strip orders that don't apply aren't removed
• We should have a computer-generated nursing worksheet instead of the Kardex

**Nursing Care Plan**
• No one looks the them..
• NO ONE LOOKS AT THEM OR CARES ABOUT THEM

**Physician's Orders Admit/Service Change**
• Antiquated and too much paperwork to have to keep track of. Also, high potential for errors secondary to different handwriting and being in carbon copy form
• Clarity of handwriting is often an issue; potential for errors high because of large stacks of order slips, strips are just tossed in a box/not organized

**Discharge Navigator Note Or Discharge Instruction/ Education**
• Very redundant. Does not provide useful information to the patient.

**Inventory of Patient Belongings, Money & Valuables**
• this form is stupid and we should not have to fill it out.

**Medically Necessary Physical Restraint Flowsheet (Acute Medical/ Surgical Care)**
• It is redundant
• My only problem w/ the restraint documentation is when a patient is on seizure precautions all 4 side rails need to be up, which constitutes a restraint. This needs to be changed to decrease workload.

**General Comments**
• DC navigator form can be confusing for patients, some parts are covered exactly on MD's DC form others are a bit different. How does the patient know what to follow, the MD's or the RN's? More of the MD's info should automatically transcribe to the RN's or vice versa.
• NO ONE READS THE NURSES NOTES IN THE CHART> THEY MIGHT READ THEM IF THEY WERE ONLINE.
• d/c navigator is great but when explaining to pt there is great redundancy between dr.s d/c note and the d/c navigator. both forms are not needed, it is a waste of time and i think sometimes confusing to pt (too many papers to reference). combo of both maybe?
• Instead of having several different sheets that we have to use for an admission, a packet where they all are combined would be better.

• I haven't written a note in the S-O-A-P format in years. I think it's unreasonable for a nurse to write a quote under the 'S' of S-O-A-P, especially when it's almost impossible to remember what the patient said.

• Some of the forms we have to fill out are redundant, are not really nursing, and are a complete waste of our time. We should be taking care of our patients instead of filling these forms out.

• We redo frequently. I get labs from computer, write them on my sheet for report, then the flow, then page doctors the result. I have spent a lot of time with the same #s. When you can spend 25 minutes signing forms, and getting papers ready for a pt that hasn't even come to the floor, something is wrong.

• It is redundant to have both the Nursing Care Plan and the Problem List and creates extra work. SOAP notes, while they have their place in emergency/code situations, should not have to be written every day. I think we can utilize the space on the front of the 24hr flowsheet for documentation and SOAP maybe 2-3 days/week and when an 'incident' occurs. Thanks so much for trying to help out our unit and nursing!

• Value of the form is understandable - however, pt's often complain because by the time they are admitted to the floor they have been asked many of the questions several times already by doctors, etc. As with all of the other forms, it would be great if this form was electronic.
Appendix G Summary of Mott 5E survey result and comments

<table>
<thead>
<tr>
<th>Form</th>
<th>Count</th>
<th>Clarity of instructions (1-Poor, 5-Excellent)</th>
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<td>2.5</td>
<td>3.0</td>
<td>1.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Nursing Problem List</td>
<td>2</td>
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<td>3.5</td>
<td>3.5</td>
<td>4.0</td>
<td>1.5</td>
</tr>
<tr>
<td>PCA and Epidural Flowsheet</td>
<td>2</td>
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<td>3.5</td>
<td>2.0</td>
<td>3.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Consult Form: Nurse Referral</td>
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<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>falls assessment</td>
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<td>5.0</td>
<td>5.0</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Food and Beverage Intake Sheet: Nursing- Patient Food and Nutrition Services</td>
<td>1</td>
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<td>2.0</td>
<td>2.0</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Point of Care Test Results</td>
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<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Subjective Objective Assessment Plan (SOAP)</td>
<td>1</td>
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<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

**Discharge Summary SOAP Note or Discharge Navigator**
- this form repeats everything that is on the d/c summary, as nursing we should just do the actually teaching and review with the family the doctors form, other than drsg or meds info, chf the form rep
- Physicians do not review the physician discharge summary with patients.

**Nursing Transfer Summary**
- Information on form does not relate to pediatric issues well.
- I feel it is a waste of time, everything is in the orders or on the flowsheet.

**Pediatric 24 hour Patient Care Flow Sheet**
- The form has three assessment parts, and it seems that they would benefit from just letting us use the one for our entire shift, rather than we have to fill out two when we work 8am to 8pm,
- incidental teaching area on back of form often forgotten

**CHC Patient Education Record**
- Many nurses don't fill this out making the next shifts wondering if the patient got any teaching at all. VERY important in our cardiac newborns!

**Nursing Problem List**
- Nursing is required to fill this form out but no one ever uses it again. Why fill it out if it's not necessary for continuity of care?

**falls assessment**
- I don't feel it actually picks up what is happening to the pt. they have low # but still at risk for falls

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Food and Beverage Intake Sheet: Nursing - Patient Food and Nutrition Services
- ambiguous how to measure the volume of the food eaten.

Point of Care Test Results
- glucometer results go back to computer anyway. Why do we have to write on it?

General Comments
- I like that things are being typed for pts, but need to stop duplication of forms and also we give families too much paper work on d/c esp. with d/c navigator.
- Daily flowsheet has such little amount of space for filling in information.
## Appendix H Recommendation for UH-7B/C

<table>
<thead>
<tr>
<th>Forms</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective Objective Assessment Plan (SOAP)</td>
<td>Include a pre-specify boxes or spaces where the nurses can check the appropriate boxes without writing out the whole sentence.</td>
</tr>
<tr>
<td>Daily Flow Sheet</td>
<td>Increase writing space.</td>
</tr>
<tr>
<td>Admission related forms</td>
<td>1. Group all admission related forms in one package.</td>
</tr>
<tr>
<td>AdvanceDirective Declaration Form</td>
<td>Use check boxes to simplify the documenting process</td>
</tr>
<tr>
<td></td>
<td>Standardize the instruction to fill out this form to avoid any confusion.</td>
</tr>
<tr>
<td>Nursing Care Plan and Nursing Problem List</td>
<td>Eliminate one of these two documents because they contain the same information.</td>
</tr>
<tr>
<td>Cardiology Procedures Unit Preprocedure Checklist</td>
<td>Eliminate this form because the same information is already recorded on the CPU checklist.</td>
</tr>
<tr>
<td>Discharge Navigator or Discharge Instruction/Education</td>
<td>Use the medication brand name on the first page so that nurses will not have to translate the genetic name to the brand name. Avoid asking the same information in discharge paper that are already in Discharge Navigator.</td>
</tr>
<tr>
<td>Physician's Orders Admit/Service Change</td>
<td>Organize the stacks of order slips in order so that errors can be avoided.</td>
</tr>
</tbody>
</table>
## Appendix I Recommendation for Mott-5E

<table>
<thead>
<tr>
<th>Forms</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective Assessment Plan (SOAP)</td>
<td>1. Eliminate the redundancy between SOAP note with Nursing Care Plan and Problem List. Reduce the frequency for the SOAP note to be written to only when an emergency/code situation occurs.</td>
</tr>
<tr>
<td>Daily Flow Sheet</td>
<td>1. Eliminate the patient education part of the flow sheet because it overlaps with CHC Patient Education form. 2. Increase writing space.</td>
</tr>
<tr>
<td>Discharge Summary (SOAP) Note and Discharge Navigator</td>
<td>1. Combine both forms together to avoid redundancy and eliminate the amount of paperwork. 2. Include only relevant information that also should be useful to physician.</td>
</tr>
<tr>
<td>Nursing Transfer Summary</td>
<td>1. Standardize the instruction to fill out this form to avoid any confusions</td>
</tr>
<tr>
<td>Nursing Transfer List</td>
<td>1. Eliminate this form because it is not used most of the time.</td>
</tr>
<tr>
<td>PCA and Epidural Flowsheet</td>
<td>1. Standardize the instructions on using this form so that any important information is not forgotten.</td>
</tr>
<tr>
<td>Point of Care Test Result</td>
<td>1. Do not include the glucometer result because the same information will be in the computer.</td>
</tr>
</tbody>
</table>