University of Michigan Health System  
Program and Operations Analysis  
Physician Assistant and Nurse Practitioner Workload Analysis in the Cancer Center  
Final Report

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EXECUTIVE SUMMARY

Physician extenders (Physician Assistants and Nurse Practitioners) working in The University of Michigan Health System Comprehensive Cancer Center are experiencing high variation in their workload. The center reports that one of the causes of variation in physician extender utilization is the physicians’ lack of a standard work expectation for physician extenders. Therefore, the Office of Clinical Affairs would like to understand how physician extenders spend their workdays. The Center asked an IOE 481 student team to study the physician extender workload of Team 1 in the Cancer Center as a pilot study for developing a methodology for further physician extender workload analysis. With this information, the center will better understand the current physician extender workload, and be able to identify ways to level the workload across the physician extenders, maximize the utilization of the physician extenders, and increase physician extender job satisfaction.

Goals and Objectives
The primary project goal is to:

- Document the current workload and utilization of the physician extenders and recommend changes to balance the workload

In addition, the student team sought to:

- Understand causes of variation in physician extender workload
- Develop a methodology for further physician extender workload analysis

With the results from the studies, the student team will provide recommendations to:

- Level workload across physician extenders
- Maximize utilization of physician extenders
- Increase satisfaction of physician extenders and physicians

Background
The University of Michigan Health System (UMHS) employs over 400 full time equivalent (FTE) Physician Assistants (PAs) and Nurse Practitioners (NPs), termed physician extenders for the purposes of this report. The Cancer Center Team 1 employs 11 physician extenders, and each physician extender works under the supervision of one or more physicians. Physician extenders are frequently used for direct patient care tasks, notably patient follow-up appointments. Physician extenders also perform indirect patient care tasks, such as dictating patient information and responding to patient calls. A need for these topics to be studied is triggered by lack of understanding of physician extender utilization, variation in physician extender workload, and past physician extender frustrations due to a lack of utilization expectations. The center believes that by understanding the current workload of the physician extenders, the center will be able to maximize physician extender utilization and increase physician extender job satisfaction.

Methodology
To achieve the project goal, the team conducted a literature search, performed preliminary observations, analyzed a workload study on nine physician extenders, surveyed 18 physicians
and 11 physician extenders in the Center, and developed conclusions and recommendations for the Center.

**Findings and Conclusions**

Overall, it was determined that the utilization of the physician extenders is not standardized. Figure 1 shows the breakdown of each task, their percentages, and the general task category that each task belongs do.

Figure 1 shows the breakdown of each task, their percentages, and the general task category that each task belongs do.

Figure 2 shows the breakdown of the general task categories for the physician extender with the highest direct patient care, the average of all physician extenders, and the physician extender with the lowest direct patient care.

The physician extender workload study led to the following findings and conclusions:

- Greatest percentage of time is spent in *Indirect Patient Care* (49% average).
- The physician extenders with the highest percentage of *Direct Patient Care* spent very little or no time on *Phone Calls*.
• The range in the amount of time the participants spent on *Direct Patient Care* differs by 25% (Range = 12% to 37%).
• The range in the amount of time the participants spent in clinic differs by 30% (Range = 33% to 63%).
• Physician Assistants and Nurse Practitioners had varying workload distributions.
• *New Patient Visits* required more time than *Return Patient* and *Procedure Patient Visits*.
• Physician extenders report that they work outside of the hospital 10% of the time.

The findings and conclusions highlighted by the survey results are:
• **Variation in physician extender workload exists.** 77% of physicians said they do not believe workload is evenly delegated to PAs and NPs.
• **45% of physician extenders believe they are appropriately utilized.** Of those, 80% still believe they could be doing more with more autonomy.
• **55% of physician extenders believe they are not appropriately utilized.** Of those, 67% “follow their physician around”, 33% could do more with increased training by their supervising physician, and 91% felt they could be doing more with increased autonomy.
• **Varying perceptions of physician extender utilization exist.** Top 5 tasks as reported by physicians and physician extenders differ from each other and from the top 5 tasks determined by the workload study data.
• **Perceptions of Dictation differ.** Physician extenders reported their physicians do 15% of dictations on average, while physicians reported they do 26% of dictations on average.
• **Shared patient visits are more common than physician extender independent clinics.** 64% of Physician Extenders reported their physician also sees every patient they see in clinic.
• **Independent clinics would increase satisfaction.** 67% of physician extenders said they would be more satisfied if PAs/NPs were given independent clinics. 86% of physicians expressed support for PA/NP independent clinics.
• **Some administrative duties are not appropriate as part of physician extender workload.** 100% of physician extenders believe administrative duties could be delegated to another staff member. 56% of physicians would like to see Physician Extenders spend less time on administrative work. Additionally, over 50% of Physician Extenders say they are at least sometimes used as a scribe.
• **43% of physicians reported they would use their physician extenders differently if compensation was different.** 33% of physicians reported that changing the compensation model would improve patient and physician satisfaction, and 29% reported compensation as a barrier to independent clinics.
• **PAs and NPs were inconclusive regarding whether the data collection methodology used in this study was less intrusive when compared to the 2009 time study.**

**Recommendations**
The following recommendations will enable the Cancer Center to achieve its long-term goals of leveling the workload of physician extenders, maximizing their utilization, and increasing their job satisfaction. The department leaders should develop a plan to carry out level workload suggestions across physician extenders with concrete and measureable goals that will provide incentive for improvement. The department leaders should establish milestones with timelines for the physician extenders to accomplish the suggested goals.
**Work Reallocation**
Some of the administrative tasks, such as prior authorization and triaging new problems, should be reallocated to other, less expensive, Cancer Center staff. Relieving PAs/NPs of work that can be performed by other staff members, thereby increasing PA/NP time available for direct patient care. Some administrative tasks may be able to be eliminated completely.

**Develop Standards for Physician Extender Utilization**
Neither of the physician and physician extender’s perceptions for physician extender utilization are accurate compared to how they actually spend their time. The following recommendations will help standardize utilization:

- A standard of work distribution to PAs/NPs in the Cancer Center should be developed to minimize variation in their utilization and workload.
- A standard for minimum hours spent in clinic per week (based on appointment) should be established to increase time spent on direct patient care and on value-added indirect patient care.
- A template for dictations should be developed to increase first time quality and reduce overall time spent in dictation editing.

**More Training for Physician Extenders**
There is variation in the utilization of physician extenders, which may be partially attributed to varying skills and abilities. This presents a barrier to having independent clinics for physician extenders. With increased training, more physician extenders may be able to function at a higher level.

**Methodology**
This project is the pilot for a larger initiative to study the workload and utilization of all PAs and NPs in UMHS. One goal of this project was to develop a methodology to be used in further analysis and to make recommendations on how to improve the model of care delivery within teams that utilize PAs and NPs.

- **Workload Study:** Tick sheets should be revised according to the area of UMHS being studied. The beepers should be explained to participants.
- **Survey:** The workload study should be analyzed before the survey is finalized in order to incorporate questions that arise from the workload data. The recipients of the survey should be carefully chosen so that people did not participate in the study do not accidentally receive it and skew the data.
- **Topics for Further Study:** Study Differences between the utilization of PAs and NPs. Study ways to make independent clinics financially profitable. Determine which administrative tasks can be reallocated. Analyze data by physician to see variations in physician extender workloads based on their supervising physician.
INTRODUCTION

Physician extenders working in The University of Michigan Hospital Cancer Center are experiencing high variation in their workload. Each physician extender is assigned to support generally, 1 or 2 physicians and there is a perception that variation exists in the workload among some of the extenders. The Center reports that one of the causes of variation in physician extender utilization is the physicians’ lack of a standard work expectation for physician extenders. Additionally, the Center has reported that they want to maximize their utilization of the physician extenders.

Therefore, the Office of Clinical Affairs would like to understand how the physician extenders spend their workdays. The Office of Clinical Affairs asked an IOE 481 student team to study the physician extender workload of Team 1 in the UMHS Comprehensive Cancer Center as a pilot study for developing a methodology for further physician extender workload analysis. In response, the student team performed a physician extender workload analysis, survey and interview physician extenders, and recommend changes to level the workload in the center.

This report includes: project background, key issues, goals and objectives, project scope, methodology, findings and conclusions, summary of conclusions, and recommendations.

BACKGROUND

The University of Michigan Health System (UMHS) employs over 400 full time employee Physician Assistants (PAs) and Nurse Practitioners (NPs), termed physician extenders for the purposes of this report. The Cancer Center Team 1 employs 11 physician extenders, and each physician extender works under the supervision of one or more physicians. Physician extenders sometimes perform patient follow-up visits in place of physicians. They also carry out a significant amount of indirect patient care tasks, such as performing and editing dictation.

The Office of Clinical Affairs would like to better understand the workload of PAs and NPs in UMHS, starting with Cancer Center Team 1. The student team used workload methodology, which uses a tick sheet and random pagers that were set to go off four times per hour. In addition to studying the physician extenders’ workload during normal workday hours, the student team also collected data on any work done at home. Physician extenders have been experiencing frustration in their roles due to a lack of established expectations related to role, duties and utilization. It has been reported that PAs and NPs have to do some of their work at home because there is not enough time during the workday. UMHS emphasizes the importance of work/life balance, and has expressed the importance of physician extender job satisfaction, as it is believed that physician extender workload is uneven due to the lack of standardization of work in the Center. The team hopes that increasing utilization can eliminate or minimize the work that must be done by physician extenders outside of UMHS.

Internal UMHS Programs and Operations data revealed that PAs and NPs within services and between services are utilized differently (as measured by time spent in direct and indirect patient care) and in some cases generating very low measurable economic value (as reflected in a 2009 time study conducted within the Comprehensive Cancer Center). UMHS would like to
standardize, where possible, the work and workload of physician extenders to improve physician extender satisfaction, while also improving value and return on investment.

The Center’s belief that a standardization of work for physician extenders in the Center will increase both job satisfaction and maximize utilization of physician extenders is thought to be present throughout UMHS; therefore, the student team hopes to develop a methodology that can be applied to all areas of UMHS. That is, this project is part of a larger initiative, which hopes to expand the methodology used in this semester in subsequent projects.

**Key Issues**
The following key issues are perceived to drive the need for this project.
- High variability in tasks and utilization of physician extenders
- A non-level work distribution among some physician extenders

**Goals and Objectives**
The primary project goal is to:
- Document the current workload and utilization of the physician extenders and recommend changes to balance the workload

In addition, the student team seeks to:
- Understand causes of variation in physician extender workload
- Develop a methodology for further physician extender workload analysis

With the results from the studies, the student team will provide recommendations to:
- Level workload across physician extenders
- Maximize utilization of physician extenders
- Increase satisfaction of physician extenders and physicians

**Project Scope**
The physician extender workload analysis includes the entire workload of all the physician extenders in Comprehensive Cancer Center Team 1, including direct and indirect patient care and other tasks.

Physician extenders wore beepers only while in UMHS; however, the study also collects and analyzes data on work done outside of UMHS through self-reported data recorded on the data collection sheet.

The project excludes any areas of UMHS outside of Cancer Center Team 1.

**METHODOLOGY**

To achieve the project goal, the team conducted a literature search, performed preliminary observations, analyzed a workload study, surveyed the physicians and physician extenders in the Center, and developed conclusions and recommendations for the Center.
Preliminary Observations
The team made preliminary observations of the current state of the Cancer Center Team 1 physician extenders between September 26-30 to become acclimated and to gain a broad understanding of the flow of the physician extenders. During this process, the team noted the tasks that the physician extenders performed throughout the workday. These observations enabled the team to create the workload analysis data collection forms that defined the tasks performed by the physician extenders. These observations also helped the team develop a plan to collect data of the process.

Literature Search
A literature search was conducted by the team to understand the research in physician extender utilization. The team reviewed previous IOE 481 Practicum in the Hospital Systems projects including:

- “Cancer Center Staffing Analysis” (Jean, Sanghvi, & Schwarzberg 1998)
- “Pediatric Multi-Specialty Clinic Nursing Staff Workload Study” (Bowersocks, Cairns, & Michelson, 1998)
- “Physician Assistant Utilization in Radiation Oncology” (Froelich, Vedhapudi, & Wetherhold, 2011)
- “University of Michigan Hospital Nursing Department Charge Nurse Workload Study” (Scozzafave, Pargof, & Withey, 1998)

The project coordinator provided the team with the information from these reports. The past reports provided examples of data collection methodologies, techniques for data analysis, and written report structures.

The team also reviewed medical journals and articles regarding physician extender utilization and satisfaction. The topics searched for included: physician extender satisfaction, physician extender utilization, and physician extenders in cancer centers. For all articles refer to Appendix J.

Data Collection
Data collection consisted of two parts: physician extender workload analysis performed by Comprehensive Cancer Center Team 1 physician extenders and surveys completed by Comprehensive Cancer Center Team 1 physicians and physician extenders.

Workload Analysis
The purpose of the workload analysis was to quantify the amount of time physician extenders allocate to each task. This study was performed by 9 (82%) of the Cancer Center Team 1 physician extenders using beepers that alarm at four times an hour randomly to indicate when the physician extenders should record the task they are performing on a data collection sheet, known as a tick sheet (Appendix A). The alarms sound randomly (an average of 4 times per hour) to gather an accurate representation of the physician extenders’ workload.

The tick sheet was created by the project team with the assistance of the Physician Assistant Supervisor for Cancer Center Team 1, the Nurse Practitioner Supervisor for Cancer Center Team
5, the Chief Physician Assistant, and the Director of Advanced Practice Nursing. This sheet, which was adopted from a previous study of physician extenders in a different department, lists the tasks that physician extenders perform daily. The sheet was then iteratively revised with feedback from the above project team members and the extenders who piloted the tick sheet.

The data collection took place from October 17 through October 28, with a few make-up days the week of October 31, in the UHMS Cancer Team 1. This collection provided the percentage of time that each physician extender allocated to each task during that time. Volume data was also collected, via a section on the tick sheet, on the number of patients each physician extenders saw, divided into three types of patients: new, return, and procedure. This volume data allowed certain tasks to be stratified in time standards in the analysis. The student team explained to the physician extenders how to collect the data to ensure the data was collected correctly, but the physician extenders were responsible for collecting the data. The student team also collected a small data sample to validate the physician extender self-collection. All physician extenders on Canter Center Team 1 were asked to participate in this project; nine of the eleven were available to do so. Of the two that were unavailable, one was a new hire and the other had primarily an administrative role. The student team analyzed the workload study to determine the physician extenders utilization and to develop recommendations for standardizing physician extender workload.

Surveys
The student team developed a survey that has a standard list of questions for all physician extenders participating in the workload study and all physicians on Cancer Center Team 1. The questions were revised with the assistance of the Chief Physician Assistant and the Director of Advanced Practice Nursing. The student team distributed, collected, and analyzed the surveys through Qualtrics, an online survey program. This survey data was used to obtain the physicians’ and physician extenders’ suggestions for improvements in workload and increased utilization. Surveys were distributed and completed the week of November 20. A copy of the survey is included in Appendix B.

Data Analysis
The student team analyzed both the workload data from the tick sheets and the survey data from Qualtrics.

Workload Analysis
The student team used the workload analysis data to determine the current utilization of the physician extenders. The data from all 82 tick sheets was entered into Excel. The student team used pivot tables and descriptive statistics in Excel to summarize and analyze the data. The data was also visually displayed using pie and Pareto charts in Excel, shown in Appendix D-I. The data was stratified by category, task, position, individual, supervising physician, and day of the week. The student team also used Minitab, a statistical analysis software package, to do significance tests on the data. The data was used to find how physician extenders allocated their time to tasks and to identify areas of improvement in physician extender workload and utilization.
Surveys
The student team exported the survey results from Qualtrics into Excel. There were 24 (86%) completed survey responses, and 5 (17%) partially completed responses. There were responses from 4 (100%) NPs, 7 (100%) PAs, and 18 (100%) Physicians. Descriptive statistics for each of the quantitative questions were calculated, and the qualitative questions were summarized according to main themes.

FINDINGS AND CONCLUSIONS FROM PHYSICIAN EXTENDER WORKLOAD ANALYSIS

All of the following data analysis represents the data collected over the two weeks of the study and the additional make up days: from October 17 to November 4. The physician extender workload study led to the following findings and conclusions:

- Greatest percentage of time is spent in Indirect Patient Care (49% average).
- The physician extenders with the highest percentage of Direct Patient Care spent very little or no time on Phone Calls.
- The range in the amount of time the participants spent on Direct Patient Care differs by 25% (Range = 12% to 37%).
- The range in the amount of time spent in clinic differs by 30% (Range = 33% to 63%).
- Physician Assistants and Nurse Practitioners had varying workload distributions.
- New Patient Visits required more time than Return Patient and Procedure Patient Visits.
- Physician extenders report that they work outside of the hospital 10% of the time.

Greatest Percentage of Time is spent in Indirect Patient Care
Figure 3 illustrates that 49% of time is spent on Indirect Patient Care by the physician extenders.

![Indirect Pt Care, 49%

Miscellaneous, 21%

Direct Pt Care, 24%

Phone Calls, 7%](image)

Figure 3: Overall Percentages for Workload General Task Categories

Figure 3 indicates that Indirect Patient Care takes up nearly 4 hours of an 8-hour workday. Though physician extenders spend the most amount of time on Indirect Patient Care, the most frequent task they perform is Return Patient Visits, a Direct Patient Care function as illustrated in Figure 4.
Figure 4 shows each task within the larger categories of Direct Patient Care, Indirect Patient Care, Miscellaneous and Phone Calls. The chart also shows the most frequent tasks that make up 50% and 80% of a physician extender’s workday.

Range in Amount of Time Spent on Direct Patient Care differs by 25% with a Range of 12% to 37%
Table 1 illustrates that physician extender with the most amount of Direct Patient Care spent 37.35% of their time on these tasks, while the one with the least amount spent 12.05%.

Table 1: Breakdown of Percentages by Individual Participants

<table>
<thead>
<tr>
<th>Physician Extender</th>
<th>Direct Pt Care</th>
<th>Indirect Pt Care</th>
<th>Sum of Direct and Indirect</th>
<th>Miscellaneous</th>
<th>Phone Calls</th>
<th>Sum of Miscellaneous and Phone Calls</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP #1</td>
<td>32.69%</td>
<td>35.10%</td>
<td>67.79%</td>
<td>27.88%</td>
<td>4.33%</td>
<td>32.21%</td>
<td>100.00%</td>
</tr>
<tr>
<td>NP #2</td>
<td>32.28%</td>
<td>49.28%</td>
<td>81.56%</td>
<td>15.27%</td>
<td>3.17%</td>
<td>18.44%</td>
<td>100.00%</td>
</tr>
<tr>
<td>NP #3</td>
<td>28.07%</td>
<td>40.35%</td>
<td>68.42%</td>
<td>19.30%</td>
<td>12.28%</td>
<td>31.58%</td>
<td>100.00%</td>
</tr>
<tr>
<td>NP #4</td>
<td>17.94%</td>
<td>57.25%</td>
<td>75.19%</td>
<td>22.90%</td>
<td>1.91%</td>
<td>24.83%</td>
<td>100.00%</td>
</tr>
<tr>
<td>PA #1</td>
<td>20.00%</td>
<td>35.17%</td>
<td>55.17%</td>
<td>27.59%</td>
<td>17.24%</td>
<td>44.83%</td>
<td>100.00%</td>
</tr>
<tr>
<td>PA #2</td>
<td>26.67%</td>
<td>45.71%</td>
<td>72.38%</td>
<td>19.52%</td>
<td>8.10%</td>
<td>27.62%</td>
<td>100.00%</td>
</tr>
<tr>
<td>PA #3</td>
<td>17.51%</td>
<td>44.70%</td>
<td>62.21%</td>
<td>31.80%</td>
<td>5.99%</td>
<td>37.79%</td>
<td>100.00%</td>
</tr>
<tr>
<td>PA #4</td>
<td>12.05%</td>
<td>55.82%</td>
<td>67.87%</td>
<td>30.52%</td>
<td>1.61%</td>
<td>32.13%</td>
<td>100.00%</td>
</tr>
<tr>
<td>PA #5</td>
<td>23.33%</td>
<td>61.21%</td>
<td>84.55%</td>
<td>4.55%</td>
<td>10.91%</td>
<td>15.45%</td>
<td>100.00%</td>
</tr>
<tr>
<td>PA #6</td>
<td>36.96%</td>
<td>50.00%</td>
<td>86.96%</td>
<td>13.04%</td>
<td>0.00%</td>
<td>13.04%</td>
<td>100.00%</td>
</tr>
<tr>
<td>PA #7</td>
<td>37.35%</td>
<td>50.60%</td>
<td>87.95%</td>
<td>12.05%</td>
<td>0.00%</td>
<td>12.05%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>23.92%</td>
<td>48.63%</td>
<td>72.55%</td>
<td>20.84%</td>
<td>6.61%</td>
<td>27.45%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 1 also highlights the physician extenders with the highest and lowest percent of Direct Patient Care. Figures 5 and 6 below demonstrate this finding more clearly.

*Highest Percentage of Time Spent in Direct Patient Care*
Figure 5 illustrates that the physician extender spends the most amount of time in Indirect Patient Care, Direct Patient Care, Miscellaneous, and no time on Phone Calls.
Figure 5: Highest Direct Patient Care Task Percentages

Figure 6 shows the physician extender’s task percentages with the lowest Direct Patient Care, which follows the same order of tasks as Figure 5.

Figure 6: Lowest Direct Patient Care Task Percentages

Figure 6 has significantly a less percentage of time spent on Direct Patient Care, and more time spent on Miscellaneous than Figure 5. Appendix D and E shows the breakdown of general category tasks and subtasks within each category of all individual NP’s and PA’s respectively.
Range in Percentage of Time spent in Clinic Differs by 30% with a Range of 33% to 63%

Figure 7 illustrates that the PA with the most clinic time has 63%, and the PA with the least has 33%.

The data presented in Figure 7 is based on actual time spent in clinic, not scheduled clinic time. The percentage takes into account the physician extenders’ appointment. Clinic time data on PA #3 and PA #6 was unavailable. Appendix F shows the distribution according to number of hours per week.

Physician Assistants and Nurse Practitioners have Varying Workload Distributions

The physician assistants and nurse practitioners vary in their workload, noticeably in the General Task Categories, and more specifically in Dictations and Notifications.

General Task Categories for Physician Assistants and Nurse Practitioners

Figure 8 demonstrates the 7 physician assistants’ workload distribution throughout the course of the two-week study.
Comparing Figures 8 and 9, Direct Patient Care and Phone Calls differ by 6% and 4% respectively with nurse practitioners having more Direct Patient Care and physician assistants having more Phone Calls. These differences are both statistically different according to Fisher’s Exact Test giving a p-value of 0.001 for Direct Patient Care, and a p-value of 0.000 for Phone Calls. The differences in Indirect Patient Care and Miscellaneous were not statistically significant.

Physician assistants did not seem to differ from nurse practitioners in Indirect Patient Care, however, when stratifying the tasks within Indirect Patient Care, Dictations and Notifications stood out as being different. The analysis is shown below.

Dictations
Table 2 illustrates that nurse practitioners spent roughly 3% more time on dictations than Physician assistants.
Table 2: Comparison of PA and NP Percent of Time Spent on Dictation and Dictation Editing

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dictation (General)</td>
<td>9.6%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Dictation - Editing</td>
<td>6.0%</td>
<td>5.7%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>15.6%</strong></td>
<td><strong>18.8%</strong></td>
</tr>
</tbody>
</table>

Fischer’s Exact Test was performed and gave a p-value of 0.05 to conclude that the difference in the percentages of dictation between physician assistants and nurse practitioners shown in Table 2 have a significant difference. To check if there was a correlation between dictations and clinic hours, the student team stratified the data in a scatterplot shown in Figure 10.

![Figure 10: Amount of Dictation vs. Hours in Clinic](image)

Figure 10 illustrates that there is no correlation between hours spent on dictation in two weeks and clinic hours in two weeks. Clinic time data for PA #3 and PA #6 was unavailable. See Appendix J.

Notifications

Table 3 illustrates that nurse practitioners spend roughly half of the time (5% less time) on notifications than PA’s.

Table 3: Comparison of PA and NP Percent of Time Spent on Notifications

<table>
<thead>
<tr>
<th></th>
<th>NP</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notification</td>
<td>4.46%</td>
<td>10.74%</td>
</tr>
</tbody>
</table>

Fischer’s Exact Test was performed and gave a p-value of 0.05 to conclude that the difference in the percentages of notifications between physician assistants and nurse practitioners shown in Table 3 has a significant difference.

Table 4 shows that *New Patient Visits* required the most time per patient among *Procedure Patient Visits* and *Return Patient Visits*.

<table>
<thead>
<tr>
<th>Patient Type</th>
<th>Minutes / Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Pt. Visit</td>
<td>44</td>
</tr>
<tr>
<td>Procedure Pt. Visit</td>
<td>24</td>
</tr>
<tr>
<td>Return Pt. Visit</td>
<td>25</td>
</tr>
</tbody>
</table>

Contrary to Table 4, the number of *Return Patient Visits* the physician extenders see is greater overall, taking more of the total *Direct Patient Care* time. This is captured below in Figure 11.

Figure 11 illustrates the tasks within *Direct Patient Care*. *Return Patient Visits* were the most frequent tasks among the *Direct Patient Care* sub-tasks.

**Physician extenders report that they work outside of the hospital 10% of the time**

Of the 10% of the time physicians spent time working outside of the hospital, according to the tick sheet data, they spend about 1.5hrs working outside of the hospital. The work done outside of the hospital was most frequently spent on *Dictations (General), Pages, and Notifications*. *Emails, Clinic Preparation, Editing Dictations, and Patient Phone Calls* were each recorded as done once among the physician extenders who documented work done outside of the hospital.

**FINDINGS AND CONCLUSIONS FROM SURVEY**

The following analysis findings result from surveys collected over two weeks: November 20 to December 2, 2011 completed by 15 (100%) physicians, 7 (100%) physician assistants, and 4 (100%) nurse practitioners. The findings and conclusions highlighted by the survey results are:

- Variation in physician extender workload exists. 77% of physicians said they do not believe workload is evenly delegated to PAs and NPs.
• 45% of physician extenders believe they are appropriately utilized. Of those, 80% still believe they could be doing more with more autonomy.
• 55% of physician extenders believe they are not appropriately utilized. Of those, 67% “follow their physician around”, 33% could do more with increased training by their supervising physician, and 91% felt they could be doing more with increased autonomy.
• Varying perceptions of physician extender utilization exist. Top 5 tasks as reported by physicians and physician extenders differ from each other and from the top 5 tasks determined by the workload study data.
• Perceptions of Dictation differ. Physician extenders reported their physicians do 15% of dictations on average, while physicians reported they do 26% of dictations on average.
• Shared patient visits are more common than physician extender independent clinics. 64% of Physician Extenders reported their physician also sees every patient they see in clinic.
• Independent clinics would increase satisfaction. 67% of physician extenders said they would be more satisfied if PAs/NPs were given independent clinics. 86% of physicians expressed support for PA/NP independent clinics.
• Some administrative duties are not appropriate as part of physician extender workload. 100% of physician extenders believe administrative duties could be delegated to another staff member. 56% of physicians would like to see Physician Extenders spend less time on administrative work.
• 43% of physicians reported they would use their physician extenders differently if compensation were different. 33% of physicians reported that changing the compensation model would improve patient and physician satisfaction, and 29% reported compensation as a barrier to independent clinics.
• PAs and NPs were inconclusive regarding whether the data collection methodology used in this study was less intrusive when compared to the 2009 time study.

The number in parentheses in the survey responses represents the frequency of the response. For the free response questions, the most frequent responses are displayed. The full responses can be found in Appendix B.

Variation in Physician Extender Workload
The following survey responses show that there is variation in physician extender workload and explain reasons for the variation.
The following questions were asked to physician extenders:

Q4 [On a scale of 1 (very uneven workload) to 10 (very even workload) ]How evenly do you believe workload is distributed across physician assistants/nurse practitioners in Cancer Center Team 1?
   Average: 4.63
   Median: 5

Q6 Rank your level of agreement with the following statement: “I have a manageable workload.”
   • Disagree 9% (1)
   • Neither Agree nor Disagree 27% (3)
   • Agree or Strongly Agree 64% (7)
The following questions were asked to physicians:

Q39 Do you believe physicians evenly delegate workload to their respective PAs/NPs?
   - Yes 24% (4)
   - No 77% (13)

Q40 In general, do you believe the physician assistant/nurse practitioners have a manageable workload?
   - Yes 81% (13)
   - No 19% (3)

Q70 Please explain why you do or do not believe physicians evenly delegate workload to their respective PAs/NPs.
   - Physician extenders have varying abilities (some can handle more responsibility than others) 31% (4)
   - Different demands (diseases) depending on each patient. 15% (2)
   - Some doctors have the ability to see patients faster than Physician Extender 8% (1)
   - Some physicians assign tasks to physician extenders that should be handled by clinic nurses, clinic coordinators, or physicians 8% (1)
   - Physicians are concerned about lost RVUs 8% (1)

Total Responses: 13 (87%)

From the above data, it can be concluded that both physician extenders and physicians recognize that workload is distributed unevenly across Cancer Center Team 1 physician extenders. Question 70 indicates that two possible reasons for the variation in workload are the varying abilities of physician extenders and the complex patients seen by Team 1 physicians and physician extenders. Although the workload is uneven, the majority of physician extenders and physicians believe the workload is manageable. For additional survey questions about physician extender workload please refer to Appendix J.

Approximately Half of the Physician Extenders Believe they are Appropriately Utilized

Physician extenders answered the following questions:

Q22 I feel appropriately utilized
   - Yes 45% (5)
   - No 55% (6)

Q23 If yes, check all that apply
   - I could be doing more with more autonomy 80% (4)
   - My physician should delegate more to me 40% (2)
   - I could/would do more if my physician would teach me 10% (1)
   - I follow my physician around 10% (1)
Q24 If no, check all that apply

- I follow my physician around 67% (4)
- I could/would do more if my physician would teach me 33% (2)
- I am asked to do things beyond my skill-set (0)
- I feel at risk (0)
- I could be doing more with more autonomy 100% (6)
- My physician should delegate more to me 17% (1)

Approximately half of the physician extenders believe they are appropriately utilized. However, ten of eleven (91%) physician extenders believe that “they could be doing more with more autonomy” from their physicians. Of those who felt appropriately utilized, 80% still felt they could contribute more with increased autonomy. Three physician extenders believe that they would be able to do more work if instructed by their physicians.

**Varying Perceptions of Physician Extender Utilization**

<table>
<thead>
<tr>
<th>Task Rank</th>
<th>Workload Analysis Results</th>
<th>Physician Extenders</th>
<th>Physician Extender Response Count</th>
<th>Physicians</th>
<th>Physicians Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient Visit</td>
<td>Dictation (includes editing)</td>
<td>100% (11)</td>
<td>Patient Visits</td>
<td>92% (12)</td>
</tr>
<tr>
<td>2</td>
<td>Dictation (includes editing)</td>
<td>Patient Visits</td>
<td>82% (9)</td>
<td>Procedures</td>
<td>69% (9)</td>
</tr>
<tr>
<td>3</td>
<td>Notification</td>
<td>Phone/Test Results</td>
<td>64% (7)</td>
<td>Phone/Test Results</td>
<td>46% (6)</td>
</tr>
<tr>
<td>4</td>
<td>Discuss Patient Care</td>
<td>Procedures</td>
<td>64% (7)</td>
<td>Dictations</td>
<td>23% (3)</td>
</tr>
<tr>
<td>5</td>
<td>Clinic Preparation</td>
<td>Notifications</td>
<td>45% (5)</td>
<td>Notifications</td>
<td>8% (1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Responses</td>
<td>11</td>
<td>Responses</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Team 7: Physician and Physician Extender Survey Results 11/20/11 – 12/2/11, N = 26 Surveys

**Table 5: Comparison of Most Frequent Tasks from Workload Analysis and Survey Results**

Table 5 was created from the workload analysis and questions 12 and 55 of the survey.

The above table shows there is a misunderstanding between how physician extenders spend their time, how physician extenders believe they spend their time, and how physicians believe physician extenders spend their time. For example, both physicians and physician extenders believe procedures are one of the top 5 tasks of physician extenders, but the workload analysis data proves otherwise.
Physician Extender and Physician Perceptions of Dictation Differ

Physician Extenders were asked the following question:

Q25 What percentage of dictations does your physician do?
- Average: 15%
- Mode: 10%
- Median: 10%
- Max: 40%
- Min: 0%

Physicians were asked the following question:

Q71 What percentage of dictations do you do?
- Average 26%
- Mode: 20%
- Median: 20%
- Max: 60%
- Min: 0%

Thus, there is a disparity between the physician and physician extenders perceptions of the percent of dictations completed by the physicians. Physician Extenders believe that their physicians do fewer dictations than the physicians reported in the survey.

Shared Patient Visits are More Common than Physician Extender Independent Clinics

Physician extenders were asked the following questions:

Q14 Do you have your own patient visits appointment schedule (separate from the physician)?
- Yes 27% (3)
- No 73% (8)

Q16 Does your supervising physician also see every patient that you see in clinic/office setting?
- Yes 64% (7)
- Sometimes 27% (3)
- No 9% (1)

Q17 If sometimes, then check all that applies:
- Only if asked 0
- All New patients 66% (2)
- Pre-identified (by complexity, diagnosis, presenting problem) patients 66% (2)
- Other 33% (1)
The following questions were asked to physicians:

Q45 Do you see all the patients that the PA/NP sees?
- Yes 67% (10)
- Sometimes 20% (3)
- No 13% (2)

Q47 Please describe the circumstances under which you both see patients:
- All patients 53% (8)
- “This is typical, in order to respond to the institution’s preference for us to obtain higher reimbursement rates from third party payers.” 7% (1)
- New patients, patients with active problems. 13% (2)
- When I am out of town, she sees patients independently 13% (2)
- NP/PA sees patient first, then shared visit 13% (2)
- She sees all of my patients. I see patients on her schedule if complex. 7% (1)
- See patients sequentially 7% (1)

Total Responses: 15 (100%)

Based on the answers to these questions, Team 1 functions almost entirely under a shared-visit model. It is rare for a physician extender to see patients independently.

**Physician Extenders and Physicians would be more satisfied if Physician Extenders are given Independent Clinics**

This section highlights and discusses survey questions relating to independent clinics, physician extenders seeing patients without physicians being present. (The acronym “RVU” stands for Relative Value Unit, which is a measure of value used in the Medicare reimbursement formula for physician services). The following questions were asked to physician extenders:

Q29 How could the department utilize PAs/NPs differently to improve patient and physician satisfaction?
- Independent clinic would increase satisfaction 66% (6)
- Level workload (dictation between physicians and physician extenders) 22% (2)
- I don’t know 11% (1)

Total Responses: 9 (82%)

The following questions were asked to physicians:

Q53 I am/would be comfortable with the PAs/NPs having his/her own patient appointment schedule.
- Yes, regardless of on-site availability of the physician 33% (5)
- Yes, only when a physician is also on-site 53% (8)
- No 13% (2)
Q62 How do you believe physician assistant/nurse practitioner satisfaction could increase?
- Independent work 33% (3)
- Hire more 22% (2)
- Better communication between PA/NPs, MDs and administration 11% (1)
- Ask them/I don’t know 22% (2)
Total Responses: 9 (60%)

Q63 How could the department utilize PAs/NPs differently to improve patient and physician satisfaction?
- Allow Physician extenders with demonstrated abilities to see patients on their own. 50% (3)
- Change RVU system 33% (2)
- Better working relation between PA and assigned Nurse 17% (1)
- Patients come to see physicians and are disappointed when they do not 17% (1)
Total Responses: 6

Q54 Please list barriers to independent clinic visits by your PAs/NPs.
- Complexity of patient 36% (5)
- RVU structure 29% (4)
- Exam room availability 29% (4)
- Patients often prefer to be seen by physician or refuse entirely 7% (1)
- PAs/NPs sometimes complain that nursing staff will not assist them to same level as physician 7% (1)
Total Responses: 14

Q72 Rank your level of agreement with the following statement: "I would use my PAs/NPs differently if compensation was different."
- Disagree or Strongly Disagree 21% (3)
- Neither Agree nor Disagree 36% (5)
- Agree or Strongly Agree 43% (6)

In summary, the above survey results show that physician extenders (question 29) and physicians (question 63) would be more satisfied if physician extenders are given the responsibility of independent clinics. Also, 86% of physicians stated that they would be comfortable with physician extenders having their own clinic. However, several important barriers to independent clinic for the physician extenders emerged including varied abilities, the complexity of patients, and the RVU system.
Physician Extenders should do Fewer Administrative Duties

Physician extenders were asked the following questions:

Q27 What duties are you required to perform, if any, that you feel could be delegated to another person, which in turn will open more direct patient care time for you?
- Administrative work 100% (9)
- Insurance and Disability paper work 44% (4)
- Phone calls 22% (2)
- Email patients

Total Responses: 9 (82%)

Q21 How often are you used as a scribe? [Definition: A scribe is present during the clinical encounter to record the actions and the words of the physician in real time. Scribes MAY NOT interject or provide their own observations or impressions into the medical record. Thus, scribes may not provide any portion of the E+M service.]
- Never 45% (5)
- Rarely 27% (3)
- Sometimes 9% (1)
- Often 18% (2)

Physician extenders would like to do less administrative tasks and 55% of the respondents feel as though they have been used as scribes.

Physicians were asked the following question:

Q59 Is there anything you like to see the PAs/NPs spend less time on?
- Administrative tasks 55% (5)
- Busy work, waiting for attending physicians to staff patients, things that can be done by RNs and MAs, clerical work. 11% (1)
- More independence, less busy work, more education, more respect. 11% (1)
- No 11% (1)

Total Responses: 9 (60%)

Mutual agreement is present among physicians and physician extenders that physician extenders should do less administrative work so they can be available to do more patient care work.

Data Collection and Comparison to 2009 Study was Inconclusive

The following questions were asked to physician extenders:

Q32 What did you like most about the data collection method?
- Easy/Simple to 38% (3)
- No as intrusive as previous study 25% (2)
- Someone is taking the time to look at this issue 13% (1)
- Nothing 13% (1)

Total Responses: 8 (73%)
Q33 What did you like least about the data collection method?
- Intrusive/Intrusive when seeing patients 43% (3)
- Many Beeps within 1 minute 57% (4)
Total Responses: 7 (64%)

Q35 Did you participate in the 2009 PA/NP utilization study?
- Yes 55% (6)
- No 45% (5)

Q36 If yes, rank your level of agreement with the following statement: “This data collection method was less intrusive than that of the previous utilization study in 2009.”
- Disagree Strongly Disagree 34% (2)
- Neither Agree nor Disagree 17% (1)
- Agree 50% (3)

The following question was asked to physicians:

Q64 Did the data collection process that the PAs/NPs participated in impact your work?
- Yes 21% (3)
- No 79% (11)

The data collection process was critiqued in both positive and negative ways from the survey. Several physician extenders said that the collection process was simple to complete. However, of the physician extenders that participated in the 2009 study, only half agreed that study was less intrusive, which was unexpected; perhaps one contribution to this finding was that the beepers often sounded many times within one minute. The majority of physicians (79%) reported they did not have their work impacted by the study.

**SUMMARY OF CONCLUSIONS**

The above findings from the workload analysis and survey responses led to several conclusions about the current workload and utilization of physician extenders on Cancer Center Team 1:

- Variations in workload and utilization may exist because of variations in physician extender abilities, physician preferences and delegator style, and the complexity of patients seen by Team 1.
- Physician extenders would benefit from standardized utilization and workload expectations.
- Some administrative duties performed by physician extenders should be reallocated to other staff members where possible.
- Most physician extenders and physicians are in support of independent clinic schedules for physician extenders, but independent visits by physician extenders rarely occur today.
- Physician extenders would benefit from more training in the Cancer Center’s specialties to increase their satisfaction, utilization, and ability to hold independent clinics.
- The current physician RVU system should be explored since at least 43% of physicians felt that it is dis-incentivizing greater delegation towards independent clinics for PAs/NPs.
The data collection methodology was improved from the previous study in 2009 but can undergo continuous improvement.

RECOMMENDATIONS

The following recommendations will enable the Cancer Center to achieve its long-term goals of leveling the workload of physician extenders, maximizing physician extender utilization, and increasing physician extender job satisfaction. The department leaders should develop a plan to carry out level workload suggestions across physician extenders with concrete and measureable goals that will provide incentive for improvement. The department leaders should establish milestones with timelines for the physician extenders to accomplish the suggested goals.

Reallocate Work
Both physician extenders and physicians would like to see the less PA/NP time spent on administrative tasks. Some of the administrative tasks, such as prior authorization and triaging new problems, should be reallocated to other, potentially less expensive personnel. Relieving PAs/NPs of work that can be performed by other staff members will give physician extenders more time for patient care. Some administrative tasks may be able to be eliminated completely. As an example, over 50% of physician extenders say they are at least sometimes used as a scribe. A scribe only records actions and words during an encounter; they do not provide any of their own observations or conclusions – this task should be eliminated completely.

Develop Standards for Physician Extender Utilization
The data showed significant variation in physician extender utilization and a lack of standard expectations. The physicians and PAs/NPs have different perceptions of how they spend their time. Additionally, neither of their perceptions are accurate compared to how they actually spend their time, which could be found using the workload study data.

Physician Expectations
Physician expectations play a large role in determining how physician extenders are utilized. A standard of work distribution to physician extenders in the Cancer Center should be developed to minimize variation in their utilization and workload. After further study in other areas of the hospital, a UMHS-wide standard could be developed. Standardization would decrease variation in utilization and workload.

Clinic Hours
A standard for minimum hours spent in clinic per week (based on appointment) should be established to increase time spent on direct patient care and on value-added indirect patient care. According to the Physician Assistant Supervisor, there is a national benchmark that 80% of physician extender time should be spent in clinic. Whether or not 80% is an appropriate standard for Cancer Center Physician Extenders needs to be studied further. This type of standardization would need to be implemented over time, since it would likely require a change in the culture of the Center. Also, some work would have to be reallocated first to prevent physician extenders from having to complete excessive amounts of work outside scheduled hours.

Dictation Template
A template for dictations should be developed to allow for faster entry and less editing. A lack
Provide More Training for Physician Extenders
Variation in the utilization of physician extenders exists, which may be partially attributed to varying skills and abilities. The variation in utilization presents a barrier to having independent clinics for physician extenders. According to the survey, 27% of physician extenders “would do more if [their] physician would teach [them].” The survey indicated that some physicians are not confident enough in their physician extender’s skill set for an independent clinic. With increased training, more physician extenders may be able to function at a higher level.

Continue to Improve Methodology
This project is the pilot for a larger initiative to study the workload and utilization of all PAs and NPs in UMHS. A goal of this project was to develop a methodology to be used in further PA/NP analysis and to make recommendations on how to improve.

Workload Study
The tick sheet should be revised according to the area of UMHS being studied; however, general categories should be kept consistent to make direct comparisons possible. The beepers should be fully explained to participants up front so they understand the randomness of the study. This will help decrease concerns when the beeper goes off many times in very short period of time.

Survey
To increase survey value, the workload study should be analyzed before the survey is finalized in order to incorporate questions that arise from the workload data. The recipients of the survey should be carefully chosen so that people who did not participate in the study do not accidentally receive it and skew the data. Future IOE481 teams may also consider making the survey responses identifiable instead of anonymous so that the workload study data of each individual can be compared with each individual’s survey responses.

Topics for Further Study
The following topics would provide additional insight on PA and NP utilization and workload:

- Study Differences between the utilization of PAs and NPs:
  - Amount of time spent of dictations was significantly different, with a p-value of 0.05.
  - Amount of time spent on notifications was significantly different, with a p-value of 0.05.
  - No NPs reported having independent patient visits; however, 3 of 7 (43%) PAs reported they did have independent patient visits. This is not statistically significant but could still be worth further study.
- Study ways to create financial incentives for physician extender independent clinics.
- Determine which administrative tasks can be reallocated.
- Analyze data by physician to see variations in physician extender workloads based on the supervising physician.
# Appendix A – Physician Extender Workload Analysis Form

## FRONT

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date</th>
<th>Total # of Pts</th>
<th>Work Done Outside Hospital</th>
</tr>
</thead>
</table>

- Circle:  
  - NP / PA

<table>
<thead>
<tr>
<th>Time</th>
<th>Direct Patient Care</th>
<th>Indirect Patient Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-8:00</td>
<td>New Patient Visit</td>
<td>Dictation (General)</td>
</tr>
<tr>
<td>8:00-9:00</td>
<td>Return Pt Visit</td>
<td>Dictation - Editing</td>
</tr>
<tr>
<td>9:00-10:00</td>
<td>Procedure Visit</td>
<td>Review Test/Lab Result</td>
</tr>
<tr>
<td>10:00-11:00</td>
<td>Direct Patient Care</td>
<td>Notification</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td></td>
<td>E-prescribe</td>
</tr>
<tr>
<td>12:00-1:00</td>
<td></td>
<td>Clinic Preparation</td>
</tr>
<tr>
<td>1:00-2:00</td>
<td></td>
<td>Order testing, make referrals</td>
</tr>
<tr>
<td>2:00-3:00</td>
<td></td>
<td>Discuss Patient Care</td>
</tr>
<tr>
<td>3:00-4:00</td>
<td></td>
<td>Other Direct Pt Care</td>
</tr>
<tr>
<td>4:00-5:00</td>
<td></td>
<td>Waiting to Staff (not multitasking)</td>
</tr>
<tr>
<td>5:00-6:00</td>
<td></td>
<td>Calling in a prescription</td>
</tr>
<tr>
<td>6:00-7:00</td>
<td></td>
<td>Medication adjustment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Test results</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Triage new problem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prior Authorization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manage Infusion Pages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>7:00-8:00</td>
<td></td>
<td>Procedure Visit</td>
</tr>
<tr>
<td>8:00-9:00</td>
<td></td>
<td>Direct Patient Care</td>
</tr>
<tr>
<td>9:00-10:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00-11:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00-12:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Instructions:**  
- Please complete the entire top portion of the sheet, otherwise the data collected cannot be used.
- Keep the beeper provided to you for the duration of the study, please turn the beeper on at the beginning of your work day and off at the end of your work day.
- When the beeper vibrates please mark a tick in the box that describes the task you are doing in the appropriate time column.
- When the beeper vibrates record only your primary task (1 tick mark), not any secondary tasks.
- Please use tally marks in groups of five, such as the following:
- Beepers will vibrate an average of 4 times per hour; it could be more or less. If you notice the beeper has not vibrated in the past couple hours your battery may be low. Brenda Smith has extra batteries available.
- At the end of the day, enter the number of new, returning, and procedure patients you have seen. Do not count patients twice; please assign them to one of the three categories.
- At the end of the day please drop off this sheet in Krisinda's mail box (Main Team 1 Staff Room) in the "Completed Sheets" folder.
- Krisinda's mail box has new tick sheets available for future days, please take multiple copies so you can begin data collection at the beginning of your workday.

## BACK

**Description of tasks marked in other:**

- Procedure Visit
- Discuss Patient Care
- Other Indirect Pt Care

**Miscellaneous:**  
- Checking appointment schedule
- Adjusting patient schedule
- Checking email
- Continuous Medical Education
- Meetings
- Research
- Personal break
- Walking
- Other

**Comments:**
Appendix B – Physician Extender Workload Analysis Survey Results

PA/NP Workload Survey

24 Completed Surveys
29 Survey Responses Total

Q69 The Office of Clinical Affairs and the Cancer Center, following up on an earlier analysis that was done in 2009, would like to understand how the physician assistants and nurse practitioners (PAs and NPs) in the Cancer Center spend their workdays. A student team from Industrial and Operations Engineering (IOE) was asked to study PA/NP's workload, starting with Team 1 in the Cancer Center. The student team collected data for 2 weeks with the help of the PAs and NPs of Team 1. The involvement of Cancer Center Team 1 is greatly appreciated. The effort and time dedicated to gathering data did not go unnoticed and is vital to this project. The purpose of this survey is to gather further information pertaining to PA/NP workload and utilization. We appreciate you taking the time to complete this survey to the best of your ability. Thank you!

Q1 What is your position?
- Nurse Practitioner 14% (4)
- Physician Assistant 24% (7)
- Physician 62% (18)

Q2 How many years of experience do you have in the cancer center?
- 0-1 21% (6)
- 2-5 14% (4)
- 5+ 66% (19)

Answer If What is your position? Physician Is Not Selected

Q4 How evenly do you believe workload is distributed across physician assistants/nurse practitioners in Cancer Center Team 1?
- 1 0% (1) (Very Uneven Distribution)
- 2 9% (1)
- 3 18% (2)
- 4 9% (1)
- 5 27% (3)
- 6 0% (0)
- 7 9% (1)
- 8 18% (2)
- 9 0% (0)
- 10 0% (0) (Very Even Distribution)

Average: 4.63
Median: 5
Mode: 5
Max: 8
Min: 1
Appendix B – Physician Extender Workload Analysis Survey Results

Q5 Rank your level of agreement with the following statement: “Across Team 1, physician assistants/nurse practitioners have a manageable workload.”
- Strongly Disagree 0
- Disagree 18% (2)
- Neither Agree nor Disagree 45% (5)
- Agree 27% (3)
- Strongly Agree 9% (1)

Average: 3.27
Median: 3
Mode: 3
Min: 2
Max: 5

Q6 Rank your level of agreement with the following statement: “I have a manageable workload.”
- Strongly Disagree 0
- Disagree 9% (1)
- Neither Agree nor Disagree 27% (3)
- Agree 55% (6)
- Strongly Agree 9% (1)

Average: 3.63
Median: 4
Mode: 4
Min: 1
Max: 5

Q7 How satisfied are you as a physician assistant/nurse practitioner with the amount of work you are expected to complete daily?
- 1 0% (0) (Very Dissatisfied)
- 2 0% (0)
- 3 0% (0)
- 4 18% (2)
- 5 9% (1)
- 6 18% (2)
- 7 9% (1)
- 8 36% (4)
- 9 0% (0)
- 10 9% (1) (Highly Satisfied)

Average: 6.73
Appendix B – Physician Extender Workload Analysis Survey Results

Median: 7
Mode: 8
Max: 10
Min: 4

Answer If What is your position? Physician Is Not Selected

Q8 Rank your level of agreement with the following statement: “I am asked to do too much.”
- Strongly Disagree 9% (1)
- Disagree 36% (4)
- Neither Agree nor Disagree 27% (3)
- Agree 18% (2)
- Strongly Agree 9% (1)

Average: 2.82
Median: 3
Mode: 3
Min: 1
Max: 5

Answer If What is your position? Physician Is Not Selected

Q9 Rank your level of agreement with the following statement: “I feel burned out at work.”
- Strongly Disagree 9% (1)
- Disagree 36% (4)
- Neither Agree nor Disagree 27% (3)
- Agree 18% (2)
- Strongly Agree 9% (1)

Average: 2.82
Median: 3
Mode: 2
Min: 1
Max: 5
Appendix B – Physician Extender Workload Analysis Survey Results

Q11 How satisfied are you as a physician assistant/nurse practitioner with the type of work you do?
- 1 0% (0) (Very Dissatisfied)
- 2 0% (0)
- 3 9% (1)
- 4 0% (0)
- 5 9% (1)
- 6 9% (1)
- 7 0% (0)
- 8 45% (5) (Very Satisfied)
- 9 9% (1)
- 10 18% (2) (Very Satisfied)

Average: 7.55
Median: 8
Mode: 8
Max: 10
Min: 3

Q12 What are the top 5 duties you most frequently perform? Please be specific
1. Dictate/Correct Dictations 100% (11)
2. See patients 69% (9)
3. Phone calls/test results 54% (7)
4. Procedures 54% (7)
5. Notifications 38% (5)
6. Clinic prep 15% (2)
7. Orders 15% (2)
8. Infusion pages 8% (1)
9. Disability Forms 8% (1)

Responses: 11
Appendix B – Physician Extender Workload Analysis Survey Results

**Q13** Do your duties differ depending on the physicians you work with?

- 1  27% (3) *(No Difference)*
- 2  18% (2)
- 3  0% (0)
- 4  0% (0)
- 5  9% (1)
- 6  9% (1)
- 7  0% (0)
- 8  9% (1)
- 9  18% (2)
- 10 9% (1) *(Completely Different)*

**Average:** 4.91  
**Median:** 5  
**Mode:** 1  
**Max:** 10  
**Min:** 1

**Q14** Do you have your own patient visits appointment schedule (separate from the physician)?

- Yes  27% (3)
- No  73% (8)

**Q15** If no, what is the barrier to you having an independent clinic schedule?

- RVUs 50% (4)
- Acuity of Patient Needs 13% (1)
- Still learning job 25% (2)
- Physicians unwilling to let go oversight of patients not needing high levels of care. 13% (1)
- Physicians asking midlevels to perform the jobs of nurses and MAs 13% (1)

**Responses:** 8
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Not Selected

Q16 Does your supervising physician also see every patient that you see in clinic/office setting?
- Yes 64% (7)
- Sometimes 27% (3)
- No 9% (1)

Answer If What is your position? Physician Is Not Selected And Does your supervising physician also see every patient th... Sometimes Is Selected

Q17 If sometimes, then check all that applies:
- Only if asked 0% (0)
- All New patients 66% (2)
- Pre-identified (by complexity, diagnosis, presenting problem) patients 66% (2)
- Other: When in town” 33% (1)

Responses: 3

Answer If What is your position? Physician Is Not Selected

Q18 What percent of the time are you in the clinic/office seeing patients when no physician is physically present in the clinic/office?
- 0% 0% (0)
- 10% 73% (8)
- 20% 27% (3)
- 30% 0% (0)
- 40% 0% (0)
- 50% 0% (0)
- 60% 0% (0)
- 70% 0% (0)
- 80% 0% (0)
- 90% 0% (0)
- 100% 0% (0)

Responses: 11
Average: 2.27 ≈13%
Median: 2 = 10%
Mode: 2 ≈10%
Max: 3 ≈20%
Min: 2 ≈10%
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Not Selected

Q19 Which types of visits are scheduled with you independently? (Check all that apply.)
- New Patients 0
- Established patients/follow-up 64% (7)
- Established patients-new problems 36% (4)
- Routine annual physicals 9% (1)
- Urgent Visits 55% (6)
- Consultations 0
- Post-op global visits 0
- Pre-op H+Ps 0
- Independent Medical Exam (IME) 0
- Procedures 64% (7)
- Other: “toxicity check prior to chemo cycle” 9% (1)
- N/A 9% (1)

Responses: 11

Answer If What is your position? Physician Is Not Selected

Q20 Do you perform procedures?
- Only after checking with the physician 55% (6)
- The physician and I see patients together; we each do procedures 0% (0)
- The physician and I see patients together; physician performs all procedures 0% (0)
- Delegated to PA/NP per delegation agreement; PA/NP sees and treats accordingly 36% (4)
- I do not perform any procedures 9% (1)

Answer If What is your position? Physician Is Not Selected

Q21 How often are you used as a scribe? [Definition: A scribe is present during the clinical encounter to record the actions and the words of the physician in real time. Scribes MAY NOT interject or provide their own observations or impressions into the medical record. Thus, scribes may not provide any portion of the E+M service.]
- Never 45% (5)
- Rarely 27% (3)
- Sometimes 9% (1)
- Often 18% (2)
Appendix B – Physician Extender Workload Analysis Survey Results

**Answer If What is your position? Physician Is Not Selected**

Q22 I feel appropriately utilized.
- Yes 45% (5)
- No 55% (6)

**Answer If What is your position? Physician Is Not Selected And I feel appropriately utilized. Yes Is Selected**

Q23 If yes, check all that apply
- I could be doing more with more autonomy 80% (4)
- my physician should delegate more to me 40% (2)
- I could/would do more if my physician would teach me 10% (1)
- I follow my physician around 10% (1)

**Responses: 5**

**Answer If What is your position? Physician Is Not Selected And I feel appropriately utilized. No Is Selected**

Q24 If no, check all that apply
- I follow my physician around 67% (4)
- I could/would do more if my physician would teach me 33% (2)
- I am asked to do things beyond my skill-set 0
- I feel at risk 0
- I could be doing more with more autonomy (100%) 6
- my physician should delegate more to me 17% (1)

**Responses: 6**

**Answer If What is your position? Physician Is Not Selected**

Q25 What percentage of dictations does your physician do?
- 0% 3
- 10% 4
- 20% 1
- 30% 2
- 40% 1
- 50%
- 60%
- 70%
- 80%
- 90%
- 100%

**Average: 2.45 ≈15%**
Appendix B – Physician Extender Workload Analysis Survey Results

Median: 2 ≈ 10%
Mode: 2 ≈ 10%
Max: 5 ≈ 40%
Min: 1 ≈ 0%

Answer If What is your position? Physician Is Not Selected

Q27 What duties are you required to perform, if any, that you feel could be delegated to another person, which in turn will open more direct patient care time for you?
- Administrative work 100% (9)
- Insurance and Disability paper work 44% (4)
- Phone calls 22% (2)
- Email patients 11% (1)

Responses: 9

Answer If What is your position? Physician Is Not Selected

Q28 Are there other duties you would like to perform that you believe would be more useful to the physician(s) you work with?
- Independent Clinic 50% (3)
- Write for revlimid and chemos. 17% (1)
- Evaluate Medical Resident 17% (1)

Responses: 6

Answer If What is your position? Physician Is Not Selected

Q29 How could the department utilize PAs/NPs differently to improve patient and physician satisfaction?
- Independent Clinic would increase satisfaction 66% (6)
- Level Workload (dictation between physicians and Physician Extenders) 22% (2)
- I don’t know 11% (1)

Responses: 9

Answer If What is your position? Physician Is Not Selected

Q30 On average how many beeps do you think you missed per day?
- None 9% (1)
- 0-5 91% (10)
- 5-10 0% (0)
- 10-20 0% (0)
- 20-30 0% (0)
- >30 0% (0)

Average: 1.91
Median: 2 (0-5)
Mode: 2 (0-5)
Max: 2 (0-5)
Appendix B – Physician Extender Workload Analysis Survey Results

**Min: 1 (none)**

Q31 How often, on average, did you 'remember then record' instead of immediately recording pages per day?
- 0 0% (0)
- 1-10 times 91% (10)
- 11-20 times 9% (1)
- 21-30 times 0% (0)
- >30 times 0% (0)

**Average: 2.09**  
**Median: (1-10 times)**  
**Mode: 2 (1-10 times)**  
**Max: 3 (11-20 times)**  
**Min: 2 (1-10 times)**

**Q32** What did you like most about the data collection method?
- Easy/Simple to 38% (3)
- No as intrusive as previous study 25% (2)
- Someone is taking the time to look at this issue 13% (1)
- Nothing 13% (1)

Responses: 8

**Q33** What did you like least about the data collection method?
- Intrusive/Intrusive when seeing patients 43% (3)
- Many Beeps within 1 minute 57% (4)

Responses: 7

**Q34** How can this data collection process be improved?
- As good as it can get 40% (2)
- Reprogram pagers so they do not be so many times in succession 20% (1)
- Not sure how it can be improved 40% (2)

Responses: 5
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Not Selected

Q35 Did you participate in the 2009 PA/NP utilization study?
☑ Yes 55% (6)
☑ No 45% (5)

Answer If What is your position? Physician Is Not Selected And Did you participate in the 2009 PA/NP utilization study? Yes Is Selected

Q36 If yes, rank your level of agreement with the following statement: “This data collection method was less intrusive than that of the previous utilization study in 2009.”
☑ Strongly Disagree 17% (1)
☑ Disagree 17% (1)
☑ Neither Agree nor Disagree 17% (1)
☑ Agree 33% (2)
☑ Strongly Agree 17% (1)

Answer If What is your position? Physician Is Selected

Q38 How many physician assistants and/or nurse practitioners are assigned to you?
Average: 1.57
Median: 1
Mode: 1
Max: 5
Min: 1

Answer If What is your position? Physician Is Selected

Q39 Do you believe physicians evenly delegate workload to their respective PAs/NPs?
☑ Yes 4
☑ No 13

Answer If What is your position? Physician Is Selected

Q70 Please explain why you do or do not believe physicians evenly delegate workload to their respective PAs/NPs.
- Physician Extenders have varying abilities (some can handle more responsibility than others) 31% (4)
- Different demands (diseases) depending on each patient. 15% (2)
Appendix B – Physician Extender Workload Analysis Survey Results

- Some doctors have the ability to see patients faster than Physician Extender 8% (1)
- Some physicians assign tasks to Physician Extenders that should be handled by clinic nurses, clinic coordinators, or physicians 8% (1)
- Physicians are concerned about lost RVUs 8% (1)

Responses: 13

Q40 In general, do you believe the physician assistant/nurse practitioners have a manageable workload?
- Yes 13
- No 3

Q41 Please explain/elaborate why you do or do not believe the physician assistant/nurse practitioners have a manageable workload.
- Unaware/ have not heard of any issues 25% (2)
- Variable based on Physician Extender 38% (3)
- Physician Extenders cannot handle working for multiples MDs 25% (2)
- Physicians should be monitoring if Physician Extender feels overloaded 13% (1)
- Most Physician Extenders do not stay late to complete work 13% (1)

Responses: 8

Q42 How satisfied do you believe your physician assistant/nurse practitioner is with his or her workload?
- 1 0% (0)(Very Dissatisfied)
- 2 27% (3)
- 3 0% (0)
- 4 9% (1)
- 5 27% (3)
- 6 9% (1)
- 7 27% (3)
- 8 9% (1)
- 9 18% (2)
- 10 9% (1) (Very Satisfied)

Average: 5.87
Median: 6
Mode: 2, 5, 7
Appendix B – Physician Extender Workload Analysis Survey Results

Max: 10
Min: 2
Answer If What is your position? Physician Is Selected

Q44 Does the PA/NP you work with have his/her own patient visits appointment schedule (separate from yours)?
- Yes  5
- No  10

Answer If What is your position? Physician Is Selected

Q45 Do you see all the patients that the PA/NP sees?
- Yes  10
- Sometimes  3
- No  2

Answer If What is your position? Physician Is Selected And Do you see all the patients that the PA/NP sees? Sometimes Is Selected

Q46 If sometimes, check all that apply
- Only if asked  0% (0)
- All new patients  33% (1)
- Pre-identified (by complexity, diagnosis, presenting problem) patients  66% (2)

Answer If What is your position? Physician Is Selected

Q47 Please describe the circumstances under which you both see patients:
- All patients 53% (8)
- “This is typical, in order to respond to the institution’s preference for us to obtain higher reimbursement rates from third party payers.” 7% (1)
- New patients, patients with active problems. 13% (2)
- When I am out of town, she sees patients independently 13% (2)
- NP/PA sees patient first, then shared visit  13% (2)
- She sees all of my patients. I see patients on her schedule if complex. 7% (1)
- See patients sequentially 7% (1)

Responses: 15
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Selected

Q48 What percent of time is the PA/NP in the clinic/office seeing patients when no physician is physically present in the office/clinic?
- 0% 40% (6)
- 10% 40% (6)
- 20% 20% (3)
- 30% 0% (0)
- 40% 0% (0)
- 50% 0% (0)
- 60% 0% (0)
- 70% 0% (0)
- 80% 0% (0)
- 90% 0% (0)
- 100% 0% (0)

Average: 1.8 ≈8%
Median: 2 ≈10%
Mode: 1 ≈0%
Max: 3 ≈20%
Min: 1 ≈0%

Answer If What is your position? Physician Is Selected

Q49 Which types of visits are scheduled with the PAs/NPs independently? (Check all that apply.)
- New patients 7% (1)
- *Established patients/follow-up* 50% (7)
- Established patients-new problems 21% (3)
- Routine annual physicals 7% (1)
- *Urgent Visits* 50% (7)
- Consultations 7% (1)
- Post-op global visits 0% (0)
- Pre-op H+Ps 0% (0)
- IME (Independent Medical Exam) 0% (0)
- Procedures 86% (12)
- None 14% (2)

Responses: 14
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Selected

Q71 What percentage of dictations do you do?
- 0% 17% (2)
- 10% 17% (2)
- 20% 0.35% (3)
- 30% 17% (2)
- 40% 0% (0)
- 50% 9% (1)
- 60% 17% (2)
- 70% 0% (0)
- 80% 0% (0)
- 90% 0% (0)
- 100% 0% (0)

Average: 3.58 ≈26%
Median: 3 ≈20%
Mode: 3 ≈20%
Max: 7 ≈60%
Min: 1 ≈0%

Answer If What is your position? Physician Is Selected

Q50 How frequently do you use PAs/NPs as a scribe? [Definition: A scribe is present during the clinical encounter to record the actions and the words of the physician in real time. Scribes MAY NOT interject or provide their own observations or impressions into the medical record. Thus, scribes may not provide any portion of the E+M service.]
- Never 15
- Sometimes 0
- Always 0

Answer If What is your position? Physician Is Selected

Q51 I am satisfied with the level of supervision sought by the PAs/NPs
- No 0
- I am not sure 4
- Yes 11

Answer If What is your position? Physician Is Selected And I am satisfied with the level of supervision sought by th... Yes Is Not Selected

Q52 If No or Unsure, please comment the reasons below:
- “I feel that in the case of my own PA there are more patients that could be seen more independently than she is comfortable seeing. The level of questioning and concern expressed by my PA to see some patients to be seen in f/u makes me give up and just see the patient as a
Appendix B – Physician Extender Workload Analysis Survey Results

shared visit. Also, when urgent new problems arise in our patients my PA sends them to ER rather than considering seeing them herself as add-on. Currently, though, there is little room to see an add-on. I think some PAs/NPs are more willing to attempt to see a patient and staff with physician later” 50% (1)
~“I don’t have an NP or PA” 50% (1)

Responses: 2
Answer If What is your position? Physician Is Selected

Q53 I am/would be comfortable with the PAs/NPs having his/her own patient appointment schedule
- Yes, regardless of on-site availability of the physician 33% (5)
- Yes, only when a physician is also on-site 0.53% (8)
- No 13% (2)

Answer If What is your position? Physician Is Selected

Q54 Please list barriers to independent clinic visits by your PAs/NPs.
  • Complexity of patient 36% (5)
  • RVU structure 29% (4)
  • Exam room availability 29% (4)
  • patients often prefer to be seen by physician or refuse entirely 7% (1)
  • PAs/NPs sometimes complain that nursing staff will not assist them to same level as physician 7% (1)

Responses: 14
Answer If What is your position? Physician Is Selected

Q55 What responsibilities and/or duties do you assign to your PAs/NPs?
Patient follow-up 54% (7)
Bone marrow biopsies 38% (5)
Seeing patients 38% (5)
Labs 29% (4)
Procedures 29% (4)
Dictations 23% (3)
Urgent care checks 15% (2)
Calls from infusion center 15% (2)
Notifications 7% (1)

Responses: 13
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Selected

Q56 Are the responsibilities and/or tasks assigned to your PAs/NPs different than other physicians?
- Yes 14% (2)
- No 28% (4)
- I don't know 57% (8)

Answer If What is your position? Physician Is Selected

Q57 If yes, why are they different? Do you believe your method is best?
- Works well for the PA/NP and the physician 60% (3)
- I don't think my methods are best and would welcome suggestions. 20% (1)

Responses: 5

Answer If What is your position? Physician Is Selected

Q58 Are there certain tasks or responsibilities that you would like to delegate to the PAs/NPs that they are not currently doing?
- No 44% (4)
- Independent visits/Independent follow-up visits 22% (2)
- “would like my PA to be able to answer patient phone calls re: interpretation of lab results-not happening currently / would like my PA to recognize important abnl lab results and flag them to me” 11% (1)
- Prescribing drugs such as Revlimid. 11% (1)

Responses: 9

Answer If What is your position? Physician Is Selected

Q59 Is there anything you like to see the PAs/NPs spend less time on?
- Administrative tasks 55% (5)
- Busy work, waiting for attending physicians to staff patients, things that can be done by RNs and MAs, clerical work. 11% (1)
- More independence, less busy work, more education, more respect. 11% (1)
- No 11% (1)

Responses: 9
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Selected

Q60 How satisfied are you with the way your PAs/NPs spend their time?
- 1 0% (0) (Very Dissatisfied)
- 2 7% (1)
- 3 0% (0)
- 4 7% (1)
- 5 21% (3)
- 6 0% (0)
- 7 21% (3)
- 8 7 21% (3)
- 9 7% (1)
- 10 14% (2) (Very Satisfied)

Average: 6.79
Median: 7
Mode: 5, 7, 8
Max: 10
Min: 2

Answer If What is your position? Physician Is Selected

Q61 How satisfied do you believe PAs/NPs are with how they spend their time?
- 1 0% (0) (Very Dissatisfied)
- 2 9% (1)
- 3 0% (0)
- 4 18% (2)
- 5 9% (1)
- 6 0% (0)
- 7 21% (3)
- 8 9% (1)
- 9 14% (2)
- 10 9% (1) (Very Satisfied)

Average: 6
Median: 6
Mode: 7
Max: 10
Min: 2

Answer If What is your position? Physician Is Selected

Q62 How do you believe physician assistant/nurse practitioner satisfaction could increase?
- Independent work 33% (3)
- Hire more 22% (2)
- better communication between PA/NPs, MDs and administration 11% (1)
Appendix B – Physician Extender Workload Analysis Survey Results

- Ask them/I don’t know 22% (2)

Responses: 9

Answer If What is your position? Physician Is Selected

Q63 How could the department utilize PAs/NPs differently to improve patient and physician satisfaction?
- Allow Physician Extenders with demonstrated abilities to see patients on their own. 50% (3)
- Change RVU system 33% (2)
- Better working relation between PA and assigned Nurse 17% (1)
- Patients come to see Physicians and are disappointed when they do not 17% (1)

Responses: 6

Answer If What is your position? Physician Is Selected

Q72 Rank your level of agreement with the following statement: "I would use my PAs/NPs differently if compensation was different."
- Strongly Disagree 14% (2)
- Disagree 7% (1)
- Neither Agree nor Disagree 35% (5)
- Agree 28% (4)
- Strongly Agree 14% (2)

Mean: 3.21
Median: 3
Mode: 3
Max: 5
Min: 1

Answer If What is your position? Physician Is Selected And Rank your level of agreement with the following statement... Agree Is Selected And Rank your level of agreement with the following statement... Strongly Agree Is Selected

Q73 Please explain how you would use your PAs/NPs differently
- No responses

Answer If What is your position? Physician Is Selected

Q64 Did the data collection process that the PAs/NPs participated in impact your work?
- Yes 21% (3)
- No 79% (11)
Appendix B – Physician Extender Workload Analysis Survey Results

Answer If What is your position? Physician Is Selected And Did the data collection process that the MLP participated... Yes Is Selected

Q65 If yes, how can the data collection be improved?
- Had to stop to record activity too frequently 50% (2)
- Physician Extender is too busy to do this, data is not accurate 25% (1)

Responses: 4

Answer If What is your position? Physician Is Selected

Q67 Do you remember the PAs/NPs participating in the 2009 PA/NP utilization study?
- Yes 14% (2)
- No 86% (12)

Answer If What is your position? Physician Is Selected And Do you remember the MLPs participating in the 2009 PA/NP ... Yes Is Selected

Q68 If yes, Rank your level of agreement with the following statement: “This data collection method was less intrusive than that of the previous utilization study in 2009.”
- Strongly Disagree 0
- Disagree 50% (1)
- Neither Agree nor Disagree 50% (1)
- Agree 0
- Strongly Agree 0

Q37 If you have any additional comments/concerns/suggestions, please write them below:
- Study did not account for reporting to multiples MDs 20% (1)
- Great study/supportive of project 40% (2)
- One model for Physician Extenders cannot account for all the work that different Physician Extenders are assigned 20% (1)
- I strongly support reevaluating our use of extenders and implementing changes in how physicians work with PAs and NPs. 20% (1)

Responses: 5
Appendix C – Individual Nurse Practitioner Utilization

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 8 Forms

Figure C.1: Overall Percentages for Workload Task Categories for NP #1

- Direct Pt Care, 33%
- Indirect Pt Care, 35%
- Miscellaneous, 28%
- Phone Calls, 4%

Figure C.2: Pareto Chart for Workload Tasks for NP #1
Figure C.3: Overall Percentages for Workload Task Categories for NP #2

Figure C.4: Pareto Chart for Workload Tasks for NP #2
Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 2 Forms

Figure C.5: Overall Percentages for Workload Task Categories for NP #3

Direct Pt Care, 28%
Indirect Pt Care, 40%
Miscellaneous, 19%
Phone Calls, 12%

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 2 Forms

Figure C.6: Pareto Chart for Workload Tasks for NP #3
Appendix C – Individual Nurse Practitioner Utilization

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 10 Forms

Figure C.7: Overall Percentages for Workload Task Categories for NP #4

Figure C.8: Pareto Chart for Workload Tasks for NP #4
Appendix D – Individual Physician Assistant Utilization Pie and Pareto Charts

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 9 Forms

Figure D.1: Overall Percentages for Workload Task Categories for PA #1

Phone Calls, 17%
Direct Pt Care, 20%
Indirect Pt Care, 35%
Miscellaneous, 28%

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 9 Forms

Figure D.2: Pareto Chart for Workload Tasks for PA #1
Appendix D – Individual Physician Assistant Utilization Pie and Pareto Charts

Figure D.3: Overall Percentages for Workload Task Categories for PA #2

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 8 Forms

Figure D.4: Pareto Chart for Workload Tasks for PA #2
Appendix D – Individual Physician Assistant Utilization Pie and Pareto Charts

Figure D.5: Overall Percentages for Workload Task Categories for PA #3

Figure D.6: Pareto Chart for Workload Tasks for PA #3
Appendix D – Individual Physician Assistant Utilization Pie and Pareto Charts

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 10 Forms

Figure D.7: Overall Percentages for Workload Task Categories for PA #4

Figure D.8: Pareto Chart for Workload Tasks for PA #4
Appendix D – Individual Physician Assistant Utilization Pie and Pareto Charts

Figure D.9: Overall Percentages for Workload Task Categories for PA #5

- Direct Pt Care, 23%
- Indirect Pt Care, 61%
- Miscellaneous, 5%
- Phone Calls, 11%

Figure D.10: Pareto Chart for Workload Tasks for PA #5

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 10 Forms

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 10 Forms
Appendix D – Individual Physician Assistant Utilization Pie and Pareto Charts

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 1 Forms
Figure D.11: Overall Percentages for Workload Task Categories for PA #6

- Direct Pt Care, 37%
- Indirect Pt Care, 50%
- Miscellaneous, 13%
- Phone Calls, 0%

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 1 Forms
Figure D.12: Pareto Chart for Workload Tasks for PA #6
Appendix D – Individual Physician Assistant Utilization Pie and Pareto Charts

Figure D.13: Overall Percentages for Workload Task Categories for PA #7

- Direct Pt Care, 37%
- Indirect Pt Care, 51%
- Miscellaneous, 12%
- Phone Calls, 0%

Figure D.14: Pareto Chart for Workload Tasks for PA #7

- Procedure Pt Visit
- Notification
- Return Pt Visit
- Other Direct Pt Care
- Dictation (General)
- Discuss Pt Care
- Review Test/Lab Result
- Checking email
- Meeting
- Dictation - Editing
- Exam Referral
- Tumor Board
- Waiting to Staff
- Other Indirect Pt Care
- Other - Miscellaneous
- Personal Break
- Research
- Walking
- Calling in a prescription
- Manage Infusion Pts
- Medication adjustment
- Other - Phone Calls
- Prior Authorization
- Test results
- Triage new problem
Figure E.1: Indirect Patient Care Sub-Tasks

Figure E.2: Direct Patient Care Sub-Tasks
Appendix E – Pie of Pie Charts for Tasks within Each Category

Figure E.3: *Miscellaneous* Sub-Tasks

- Direct Pt Care, 24%
- Indirect Pt Care, 49%
- Phone Calls, 7%
- Meetings, 3.5%
- Continuous Medical Education, 0.3%
- Checking email, 5.2%
- Research, 0.0%
- Walking, 4.7%
- Adjusting pt schedule, 0.4%
- Checking appointment schedule, 0.7%
- Personal Break, 3.6%
- Other, 2.4%
- Miscellaneous, 21%

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 82 Forms

Figure E.4: *Phone Calls* Sub-Tasks

- Direct Pt Care, 24%
- Indirect Pt Care, 49%
- Phone Calls, 7%
- Prior Authorization, 0.2%
- Test results, 1.5%
- Other, 1.3%
- Triage new problem, 2.3%
- Medication adjustment, 0.7%
- Calling in a prescription, 0.1%
- Manage Infusion Pts, 0.6%
- Miscellaneous, 21%
Appendix F – Physician Extender Time Spent in Clinic

Figure F.1: *Hours Spent in Clinic per Week* by Physician Extender

Figure F.2: *Percent of Total Work Time Spent in Clinic* by Physician Extender
Appendix G – Pareto Chart of Tasks within Categories

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 82 Forms

Figure G.1: Pareto Chart of Tasks within Categories for all Physician Extenders
Figure G.2: *Pareto Chart of Tasks within Categories* for all Physician Assistants

![Pareto Chart of Tasks within Categories for all Physician Assistants](image)

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 82 Forms

Figure G.3: *Pareto Chart of Tasks within Categories* for all Nurse Practitioners

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 53 Forms

Figure H.1: *Pie Chart of Categories* for all Physician Assistants

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 53 Forms
Appendix G – Pareto Chart of Tasks within Categories

Figure H.2: Pie Chart of Categories for all Nurse Practitioners

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 29 Forms
Appendix I – Dictation Pie Charts

Figure I.1: *Pie Chart of Dictation* for all Physician Extenders

- Dictation (General), 65%
- Dictation - Editing, 35%

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 84 Forms

Figure I.2: *Pie Chart of Dictation* for all Physician Assistants

- Dictation (General), 61%
- Dictation - Editing, 39%

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 53 Forms

Figure I.3: *Pie Chart of Dictation* for all Nurse Practitioners

- Dictation (General), 70%
- Dictation - Editing, 30%

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 29 Forms
Appendix J - Correlation between Clinic Time and Dictation Time

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 9 Physician Extenders

Figure J.1: Correlation between Time Spent in Clinic and Time Spent on Dictation

R² = 0.0014

Figure J.2: Correlation between Time Spent in Clinic and Time Spent on General Dictation

R² = 0.03
Appendix J - Correlation between Clinic Time and Dictation Time

Team 7: Physician Extender Workload Analysis Study 10/17/11 – 11/4/11, N = 9 Physician Extenders

Figure J.2: Correlation between Time Spent in Clinic and Time Spent Editing Dictation

R² = 0.1578
REFERENCES


