How To Conduct The Perfect Emergency Department Staffing Study

By: John L. Templin, Jr., FHIMSS, FACHE, FAAHC, CPHIMS
President, Templin Management Associates, Inc.
Greenfield Center, New York

Section 1 – Introduction

I prepared and presented a similar paper at the HIMSS 1990 Annual Conference. Much has changed in 14 years. For many hospitals, and perhaps for the majority of hospitals, more non-maternity patients are admitted through the ED than through the "front door". There are now two primary ways that inpatients get admitted, either through the ED, or admitted after surgery. As the number one gateway to the institution, the ED requires executive attention and expert analysis by internal management engineers or external consultants. This paper was prepared to assist in analyzing ED staffing requirements.

There is a wide range of services that could be offered in an ED ranging from urgent care to severe trauma. It is not unusual to hear that 25 percent or more of the ED patients could be treated in a doctor's office if the patient had a primary physician. At the other end of the spectrum, major trauma usually represents less than one percent of all ED patients.

It is difficult to predict staffing for an ED. One reason is that the average length of stay (ALOS) is typically less than two hours for a community hospital and less than three hours for a teaching hospital. These estimates assume that admitted patients are promptly moved from the ED to the inpatient unit. However, the literature is replete with stories of admitted patients staying hours, or even days, in the ED due to a lack of inpatient beds. Ambulance diversion is commonplace in many large cities. On the average, every diverted ambulance represents a revenue loss of more than $3,000. Another factor is the fluctuating daily volume. Exhibit 1 shows the actual daily volume for nine months of 2003 for an ED with an annualized volume of 50,400 visits (138.2 per day). The lowest volume was 95 patients and the highest volume was 174 patients. This is a range of 83 percent. As shown in the cumulative distribution, a volume of less than 119 patients occurred 6.6% of the time or about once per two weeks. This was about the same probability of seeing 160 or more patients. 123 or less patients happened an average of once per week.

Because volume varies significantly from day to day and during the 24 hours, it is necessary to provide staff to cover a workload higher than the average number of visits. This results in standby or idle time. Because the workload is random ED nurses usually cannot be reassigned to the inpatient floors or to other units and pulled back when patients arrive. How much standby time should there be to meet service demands without breaking the bank? This question will be answered as part of this paper.

A management engineer who has completed more than 75 ED studies in hospitals with ED volumes ranging from less than 5,000 to more than 150,000 annual visits prepared this paper. He has developed basic assumptions for what should be expected in an ED, a questionnaire to ease the interview process, and a spreadsheet to quantify staffing. These items are contained herein. Also provided is a list of potential project goals and time estimates to complete a project.

Section 2 – Basic Assumptions

These assumptions will help the reader understand the methodology and should help when presenting a report.

1. ED nursing staff utilization (productive activities) should be between 65% and 85% depending on total volume, shift, and day-to-day volume fluctuation. In most departments the target utilization is between 70% and 80%. To achieve 75% staff utilization, the average staff member should spend 6 hours of their 8-hour shift performing productive activities. Note: productive time typically includes a personal, fatigue and delay (PFD) factor.

2. If there is an urgent care or "fast track" portion of the ED and if it is a separate cost center, the target utilization should be set at least 5% higher than for the main department. This is due to a combination of being busy during the hours the unit is open and the inherent lower staff utilization on the night shift in the main ED.

3. ED staff, by skill mix, typically includes:
    a. Supervisory personnel – director in larger departments or manager in smaller departments

    b. RNs assigned to triage if the average volume is at least 4 patients per hour (1 per 15 minutes). During less busy times a staff RN is usually assigned to triage patients but is not stationed at a triage desk.

    c. Staff RNs at a ratio of one nurse per ten patients based on the average shift volume with a minimum of two RNs on duty at all times. Note: the California rule of one nurse per three patients needs to be tied to the ALOS. If the ALOS is 2.0 hours a nurse can be assigned to 12 patients per 8-hour shift. If the ALOS is 3.0 hours there are only 2.67 "turns" of patients and the staffing would need to be one RN per 8 patients.

    d. LPNs/LVNs may or may not be used in an ED. The trend is away from using this skill level.

    e. Nursing assistants or EMTs at a rate of one per 20 patients based on the average volume for the shift. This ratio would be higher in an ED with a central transport team and where the laboratory is responsible for specimen procurement. It would be lower if transport is a major concern, e.g., radiology is 100 feet away rather than within the ED itself; or if the nursing assistants perform most of the venipunctures.

    f. Registration staff is usually charged to a finance cost center in ED's with an annual volume exceeding 15,000 visits. On the night shift the registrar may be charged to the ED or to finance. A typical ratio is one registrar per 30 patients (approximately 4 per hour).

    g. Other clerical support could include unit clerks or secretaries for answering the phone, order entry, results posting, and related duties. A common ratio is one clerical person per 30 patients. In larger departments it is also common to find a departmental secretary or administrative assistant.

h. Physicians and physician assistants are not included in this analysis.

4. Few emergency departments have valid data on average length of stay. Where data is available the ALOS is often in the range of 45 – 60 minutes for fast track patients, 1.25 – 1.75 hours for the average treat and release patient, and at least 3 hours for admitted patients.

5. A key factor in ED staffing is the percentage of patients who are admitted rather than released. The national median is between 16 & 17%. The percentage can be less than 10% or greater than 20%. These are total percentages including fast track patients. If the fast track patients are counted in a separate cost center, the admitted percentage in the main department will be correspondingly higher. Note: do not confuse the 16% of ED patients with the percent of total hospital patients admitted through the ED. For example, in a hospital with 20,000 ED visits and a 16% admission rate a total of 3,200 patients will be admitted and 16,800 patients will be treated and released (or admitted to another facility via transfer). If there are 8,000 total hospital admissions annually the 3,200 patients admitted via the ED represent 40% of all admissions.

6. The distribution of patients by shift is somewhat dependent on where the hospital is located. An inner city hospital may have more patients admitted on the night shift as compared to a suburban hospital. It is also important to understand that most data tracks the number of patients **admitted by hour** and not the number of patients **in the ED at any given hour**. Calculation of the number of patients in the department would require a specific data collection or the use of simulation software. A typical shift distribution is as follows:
   - Days: 39 – 43 percent
   - Evenings: 42 – 48 percent
   - Nights: 11 – 19 percent

7. Few hospitals use a patient classification system in their ED as a basis for determining the number of nursing staff required. Virtually all hospitals use an acuity based classification system for billing. The most common systems have five or six levels. An example of a 5-level system would be:
   - Brief visit
   - Intermediate visit
   - Extended visit
   - Intensive visit
   - Comprehensive visit

   There may be a separate code for return visits for checking dressings or for suture removal.

8. The volume by day of week is not consistent. Often the highest volumes occur on weekends when alternative sources of care are closed, e.g., doctors' offices and clinics. While the total number of visit may be higher on weekends, the number of admitted patients does not go up at the same rate, and may not increase. In effect, the acuity is lower on weekends.

9. Room utilization studies are difficult to perform because a patient may be in more than one room, or may wait in a hallway or holding area pending test results, arrival of a consulting or

private physician, or a decision to treat and release. Simulation models are often used to estimate room utilization (and staff utilization).

Section 3 – Potential Project Goals

Because the unit is never closed and can be the source of 40 – 50% of all admissions, it is essential to have a cost-effective department. In 1989, I "This is particularly true in the current environment of nursing staff shortages." If my statement was valid 14 years ago it is dogmatic at this time! To assure a successful study it is essential to start out with clear goals. The next step is to develop and present a clear, fact filled report. A third factor is to allow sufficient time for communication and consensus building. Project goals typically include:

1. Determine the required staffing level in total, by skill, by shift, by weekday versus weekend, and by mix of full time, part time and per diem staff.

2. Compare the required staffing levels with the approved budget and with the current actual staff level. Identify differences and recommend how to make the adjustments.

3. Evaluate the visit volume by hour of day and day of week to balance staffing patterns with predictable workload variations. Recommend scheduling changes to minimize staff idle time.

4. Reduce the average length of stay by identifying systems improvements and recommend specific corrective action.

5. Interview ED physicians and attending physicians to determine their perceptions of the functioning of the ED and to gather both their ideas for change and their support for change.

6. Interview ED nursing and support staff to determine their perceptions of the functioning of the ED, and to gather both their ideas for change and their support for change.

7. Conduct observation on the various shifts and days of the week to determine the daily operation, patient movement, and support functions.

8. Develop and implement control reports that can be used as part of an ongoing productivity system.

A project including all these goals could easily take 35 – 40 days of work for an experienced management engineering or consulting team, and up to twice as long for a team without any ED experience. A typical calendar time is three months or more depending on data availability. If only staffing is analyzed, and if good volume data is available, a project can be completed in one week or less using the approach and standards in this paper.

Section 4 – Conducting the Study

This section includes guidance on conducting the initial interview with the nursing director, a productivity survey and a staffing spreadsheet. The first step in any major project should be an

orientation meeting with as many staff members as possible. For an ED study this may require attending three or more change of shift reports.

1. Interviews

The person most critical to project success is the nurse leader. Exhibit 2 is the Templin Management Productivity Survey for the Emergency Department. It contains 129 questions designed both to identify ED responsibilities and to help quantify the time and skill level required. Use of this survey will minimize the possibility of missing any major responsibility. The recommended approach is to have an initial 30-minute meeting with the nursing director during which the survey and available statistical data are discussed. Plans can be made for any concurrent data collection that might be necessary to quantify length of stay or other vital statistics not normally captured. It typically takes 3 – 5 hours of concentrated time to complete the productivity survey. Therefore it will probably be at least one week before the completed survey is available for review and discussion.

Physician interviews should start with the ED medical director. If the ED physicians are hospital employees it may be necessary to validate their staffing level. If the ED physicians are on contract this analysis might not be appropriate. Interview topics usually include physician coverage by time of day and day of week, physician perception of system issues and opportunities, and related matters.

Nursing staff interviews should include representatives of all skill levels and all shifts. These interviews can be a combination of one-on-one structured sessions and informal small group sessions during any on-site observation.

2. Patient Visit Data

Data is usually available on a monthly and year-to-date basis from the billing system. It is important to understand that in most emergency departments the volumes reported by nursing will be different from the numbers in the billing system. Usually the nursing numbers are slightly higher. Reasons include difficulty in capturing patients who leave without being seen (LWBS), employees on off-shifts with health issues, or patients who might not be charged for the visit. An example could be a patient saying "My doctor told me to meet him in the ER." In addition to the differences between the nursing numbers and the billing system numbers there could be differences between the billing system numbers for the nursing staff and billing system numbers for the medical staff. If some patients are seen by their own doctor, the difference can be as much as ten percent.

Most hospitals can produce a log report of all patients registered per day. A typical log may include the patient name and number, registration time, chief complaint, dismissal time and disposition (admitted to bed X, discharged or transferred to facility Y). This information may be of limited value. Reasons could include:
- The start time is time of registration, which usually happens after triage.
- The chief complaint might be vague.

- The time of disposition may not be the time the patient left the department. For example, admitted at 9am but not transferred to the inpatient unit until 1pm when a bed became available.
- No information on why the patient was in the ED for longer than expected.
- The disposition time may be when a staff member "remembered" to enter the data rather than the actual time.

A patient log is valid for developing a picture of typical arrival rates by hour of day and day of week. If the information is available, it may be more useful to review the ED copy of the visit. This form usually is started by the triage nurse and includes triage time and other key information. Examples include whether or not the patient had lab work, imaging procedures, or other interventions or tests. In a typical ED 50% - 70% of the patients might have lab work and 40% - 50% might have one or more imaging procedures. Lab work will add at least 30 minutes to the visit length while imaging procedures will add at least 45 minutes to the visit.

3. Staffing Standards Development

The most significant factors impacting the staffing standard are the percentage of patients admitted rather than treated and released, and whether or not the ED staff is responsible for selected activities. As mentioned supra, the admitted percentage can range from less than 10% to almost 25% of all patients. During 2002, I worked with a hospital where only 3% of the ED patients were admitted. The acuity was low and the patients were treated and released quickly. Naturally, that ED scored very high in terms of patient satisfaction.

ED responsibility for activities can vary significantly starting with the registration process. If it takes 6 – 9 minutes to register a patient depending on a combination of the computer system and if the patient is already in the system, and if there is significant standby time between patients, a staffing level of 15 minutes per patient would be typical. In effect, the worked hours per visit would vary by 0.25 hours depending on whether the registration staff hours are charged to Central Registration or the ED. Other activities that could be performed by ED staff or employees in other departments include:
- Phlebotomy
- Transportation – patient and/or specimens
- Electrocardiograms
- Housekeeping – between patients and daily cleaning
- Social services
- Crutch fitting and training

There are typically four components to a staffing standard or staffing equation. They include:
- Variable component
- Fixed or constant component
- Target utilization percentage or performance goal, and
- Paid time off add-on factor.

The variable component includes both direct nursing care and ancillary or indirect care. The time for the direct nursing care can be determined via a patient classification or acuity system. Another

method is to use the billing data for the percent distribution of patients and standard minutes per level. Exhibit 3 shows the "Development of Emergency Department Staffing Standards" for a hospital with 20,000 annual visits. Based on the visit mix and these standard times the average direct care time is 27.00 minutes. In this example all direct care is provided by RNs.

The ancillary activities include several functions that could be performed by the ED nursing staff or by employees of other departments. The time for triage varies by facility depending on how comprehensive the process is and computer support. It may be necessary to time study several nurses to determine an average time. Typical times range from 5 – 8 minutes. In this example the registration function is performed by Central Registration staff so zero time is assigned.

For many ancillary activities it is essential to determine or estimate the percentage of patients for whom the nursing staff perform the activity. IV starts is a good example. More than 30% of the patients may have an IV. If patients who arrive by ambulance already have an IV started or if medical students or residents not part of the ED cost center start some IV's, it is necessary to only count the IV's started by ED staff. Specimen procurement is another activity that varies widely. The range could be from all venipunctures by laboratory personnel to all venipunctures by ED personnel.

Transport times can also vary widely depending on the size of the facility and the spatial relationship of other departments to the ED. Is there an x-ray unit within the ED or is it down the hall? Is there a direct elevator from the ED to the ICU or are the elevators down the hall?

Some activities may vary by shift or day of week. There may be an EKG tech on duty until 9pm with the ED staff performing EKGs from 9pm – 6am. Physical Therapy staff may do crutch fitting and training on the day shift weekdays only.

The observation of patients is the time allowed for observing patients waiting for a consult, for a decision to admit or release, or after the official admission until actual transport to a bed. The constant for all patients allows for family interaction, telephone calls, maintaining a bed tracking system, and related duties.

In this exhibit a 15% personal, fatigue and delay (PFD) add-on is used. After the PFD factor is applied the standard variable time per visit is 1.621 hours (97.26 minutes). The final step in determining a worked standard and staffing level is to apply a target utilization percentage. It is common to use a higher factor for the RNs as compared to the support personnel. In this exhibit an 85% factor was used for the RNs and 80% for the aides and clerical staff. This allows an average of 72 minutes per 8-hour shift of standby time for the RNs and 96 minutes for the support staff. After the targets are applied the weighted average variable time is 1.944 hours (116.64 minutes) per visit.

The constant or fixed functions typically include those activities that do not vary directly with the change in daily visits. In this exhibit constant functions include change of shift report, supplies, trips to other departments (not patient transports), new staff orientation, and general management. The constant time totals 168.75 hours per week prior to application of the target percentages. After application of the target the constant time converts to 5.05 worked FTEs or about 21% of all worked time. Based on a combination of the variable and fixed activities the recommended worked staff level is 23.74 FTEs. As shown at the bottom, this converts to 2.47 worked hours per

visit. National median worked hours per visit are generally in the range of 2.4 – 2.5 hours. Therefore, this standard is very reasonable.

The final step is determining the paid staff level by adding a factor for paid time off. This exhibit uses an add-on of 12.55%, which is based on an average of 29 paid days off per FTE per year (260 paid days – 29 days off) / 231 days worked x 100 = 12.55%. Note that the 29 paid days off are 11.54% of the paid time. The add-on percentage is used because for every 231 days worked one must add-on 31 days of PTO. The recommended paid staff level is 26.72 FTEs. This is 1.98 paid FTEs less than the budget and 1.28 paid FTEs less than the actual staff level. The imbalance is basically at the clerical level. It would appear that this hospital has 24x7 clerical coverage whereas the need is 16x7.

4. Summary

Emergency departments need to be properly staffed in order to assure patient, nursing staff and medical staff satisfaction. ED studies can be interesting and satisfying for the management engineer, nurse or consultant who has the tools and experience to conduct a valid study. The basic tools are contained herein. Experience can only be gained by doing the study.

TEMPLIN MANAGEMENT PRODUCTIVITY SURVEY

EMERGENCY DEPARTMENT (ED)

Hospital Name: _____   Date _____
Cost Center Number: _____
Person Completing Survey: _____
Title: _____
E-mail address: _____
Phone Number: (____) _____ Extension: _____
Fax: _____

INSTRUCTIONS: Please answer all questions by circling the correct response, or by filling in the blanks. Do not take a wild guess if you do not know the answer. The question can be discussed with the consultant during a subsequent interview, if necessary.

1. What is the length of the <u>paid</u> work week for ED employees, e.g., 37.5 or 40.0 hours: _____ If this varies by skill level, please explain:
    _____

2. Is the policy for employee breaks two 15-minute breaks per day?   YES NO

3. If no, what is the policy?
    _____
    _____

4. Does the break policy state the employee is entitled to the breaks, or that the employee only gets the breaks if time is available?
    _____

5. Is the **meal break** completely non-paid time, e.g., 8.5 hours at the hospital for 8.0 hours pay?
                                                                              YES NO

6. If no, what is the policy for paying for part or the entire meal break?
    _____
    _____

7. What is the budgeted paid FTEs for this cost center? _____ FTEs.
    If it is easier, please supply a copy of the staffing budget.

8. Do the budgeted FTEs include annual allowances for overtime, replacements for vacation, sick time or holiday time off; or allowances for on-call time?   YES NO

9. If no, are there budgeted hours or FTEs for these items?   YES NO

10. If yes, and if not included in the question 7 answer, what are the budgeted FTEs or annual hours for replacement staff?

    _____

11. Is the actual paid staff level, including paid overtime, different from the budgeted paid FTEs by more than 0.5 FTE?   YES NO

12. If yes, what is the actual paid staff level?   _____

13. What are the numbers of budgeted, actual FTEs and actual people, by position title? For example, if the budget is 6.4 paid FTEs and if there are 5 full time employees and 2 part time employees who are 3 days per week each (0.6 FTE each), the correct answer is 6.4 budgeted FTEs, 6.2 actual paid FTEs, and 7 actual people. If your position titles are different, please correct or add the job titles. **Where there are two titles shown for a position, please cross out the incorrect title**.

Position Title	Budgeted FTEs	Actual FTEs	Actual People
Medical Director			
Other doctors			
Physician assistants			
Director (RN)			
Manager / Supervisor			
Nurse Manager / Head Nurse			
Assistant manager / assistant head			
Coordinator			
Charge nurses			
Clinical specialist / instructor			
Mental health evaluators			
Social workers			
Staff RNs			
LPN or LVNs			
EMTs			
Housekeeping aides			
Nursing assistants			
Orderlies			
Unit business support			
Unit secretary			
Unit clerk			
Registrar			
Admitting staff			
Other -			
Other -			
Totals			

14. What percentage of the paid staff is vacation, holiday and sick time (or paid time off) rather than worked time? (typically 10 - 16%) _____%

NOTE: if it is easier, please attach a year-to-date payroll report.

15. What is the daily worked staffing for this cost center by day of week by shift? Include management, supervision, and clerical support.

Days	Skill / title	Weekdays	Saturdays	Sundays	Holidays
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Evening	Skill / title	Weekdays	Saturdays	Sundays	Holidays
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Nights	Skill / title	Weekdays	Saturdays	Sundays	Holidays
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

16. Are there any personnel working in the ED not on the ED payroll, e.g., radiology techs?   YES NO

17. If yes, please explain: _____

_____

18. What were the annual volumes for the most recent fiscal year, and year-to-date for the current fiscal year?

	Last Fiscal Year	**This Fiscal Year**	**Months YTD**
Total visits	_____	_____	_____
Fast track visits	_____	_____	
Elopements/AMA	_____	_____	
Left w/o being seen	_____	_____	
Employee health	_____	_____	
Admissions	_____	_____	

19. What is the percent distribution of visits by shift (by time of registration)?
    Days _____, Evenings _____, Nights _____

20. How many beds or rooms are there in the ED?   Regular/general: ____, heart: __, isolation: ___, pediatric: ____, trauma: ____, chest pain observation: ____ fast track/urgent care: _____, other (explain): _____

21. Is data routinely maintained on any of the following?

		Average
Arrival rates by hour of the day?	YES NO	_____
Average length of stay for all patients?	YES NO	_____
Average length of stay for treat and release patients?	YES NO	_____
Average length of stay for admitted patients?	YES NO	_____
Number of patients in the ED by hour of day?	YES NO	_____

If yes to any of these questions, please supply the data.

22. Is there a separate express care, urgent care or fast track portion of the ED?   YES NO

23. If yes, what hours of the day and days per week is it open? How is it staffed?

Day of Week	**Open**	**Close**	**# Staff Assigned (by skill mix)**
Monday	____	____	_____
Tuesday	____	____	_____
Wednesday	____	____	_____
Thursday	____	____	_____
Friday	____	____	_____
Saturday	____	____	_____
Sunday	____	____	_____

24. Is the ED used for procedures such as minor surgery?   YES NO

25. If yes, what are the procedures, the annual volumes and the average time per procedure?

Procedure	**Annual Volume**	**Average Time**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Other (explain) _____	_____	_____

26. Is the ED used to house patients overnight during periods of high census?   YES NO

27. If yes, during what parts of the year, how many patients are held overnight, and what data is available for analysis?

_____

_____

28. Is there a patient classification (acuity) system used in the ED for nursing?   YES NO

29. If yes, please explain and please attach a copy of any period or year-to-date data:

_____

_____

30. Does the classification system have an average number of nursing minutes per category? YES NO

31. If yes, please attach a copy of the standards.

32. Is there an acuity system used in the ED for billing (usually 5 or 6 levels)?   YES NO

33. If yes, please explain and **please attach a copy of any period or year-to-date data**:

_____

_____

34. Does the billing acuity system have an average number of doctor minutes per category?
YES NO

35. If yes, please attach a copy of the standards.

36. Is there a manual logbook maintained for the ED?   YES NO

37. If yes, does the book contain:

Entry Type	**YES**	**NO**
patient arrival time	___	___
patient departure time	___	___
admit or discharge status	___	___
reason for visit (diagnosis or presenting symptoms)	___	___
a billing or classification category	___	___
Other (explain) _____	___	___

38. Is there a computer daily log printed for the ED?   YES NO

39. If yes, does the daily log contain:

Entry Type	**YES**	**NO**
patient arrival time	___	___
patient departure time	___	___
admit or discharge status	___	___
reason for visit (diagnosis or presenting symptoms)	___	___
a billing or classification category	___	___

Other (explain) _____   ___   ___

40. Are there staggered start times for some nursing staff members, e.g., 7 - 3:30, 8 - 4:30, or longer shifts, such as 10 or 12 hours?   YES NO

41. If yes, please explain including the shift hours and the number of staff by skill level who work these shifts. Or, **please attach a copy of the four-week schedule**.
   _____
   _____

42. Is data maintained on the number or percentage of patients who arrive by ambulance, or on the number or percentage of patients that arrive by each method of transport?   YES NO

43. If yes, please supply the data. **If no, please estimate the daily ambulance average**: _____
Method	Percent	Number
Ambulance	_____	_____
Car	_____	_____
Walk-in	_____	_____
Other (explain)	_____	_____	_____

44. What are the hours of clerical or secretarial coverage by shift and by day of week? Please be sure to specify start and end hours so that the consultants can see when there is less than full shift coverage. Only include personnel charged to this cost center, not registrars charged to finance/admitting.

Shift Covered	**Clerical Coverage Start and End Time**
Day shift, weekdays	_____
Day shift, weekends	_____
Evening shift, weekdays	_____
Evening shift, weekends	_____
Night shift, weekdays	_____
Night shift, weekends	_____

45. Is there a nurse with a primary assignment of triage around the clock or only at certain times of the day? Please explain:
   _____
   _____

46. For a patient that does not arrive by ambulance, is the first contact for the patient a registrar or a triage nurse?
   _____

47. If the first contact is a registrar (sometimes called quick registration), on the average, how many minutes does it take for the initial registration process?
   _____

48. On the average, how long does it take for the triage process for patients that do not arrive by ambulance?

_____

49. Are there test-ordering protocols that can be invoked by the triage nurse?   YES NO
    Comment, if necessary: _____

If yes, do the protocols include both laboratory and radiology?   YES NO
    Explain if split:

_____
    Approximately what percent of the patients have protocols used?
50. How long does it take for the complete registration process?
_____ If this varies for patients in the computer system versus first time patients, please explain:
_____
_____

51. Approximately what percent of the patients have prior visit data in the computer system?
_____

52. Is registration normally performed at the bedside or in a traditional registrar booth setting?
_____

53. If traditional registration, are there plans to move to bedside registration?   YES NO

54. If yes, please explain:
_____
_____

55. What computer support is available in the ED?

Function	**YES**	**NO**
Flow chart	___	___
Lab order entry	___	___
Lab results availability	___	___
Imaging order entry	___	___
Imaging results (digital or voice report)	___	___
On-line medical record	___	___
Patient care plan revisions	___	___
Patient classification system	___	___
Pharmacy order entry	___	___
Other _____	___	___

_____

58. Are data maintained on the average time from triage to registration, registration to patient seen by nursing, seen by nursing to seen by doctor, etc.?   YES NO

59. If yes, please share any data or reports that might be available.

60. What percent of the patients requiring laboratory testing have the venipunctures performed by ED personnel versus someone from the laboratory coming to obtain the specimen?
_____

61. What percent of the patients have laboratory testing?
_____

62. Is there any data on average length of time from specimen procurement until the results are available in the ED?   YES NO

63. Are there published laboratory turnaround time targets?   YES NO
Please share any laboratory turnaround time data that might be available.

64. How are laboratory specimens sent to the laboratory?
    Carried by lab staff   YES NO
    Carried by ED staff   YES NO
    Carried by transport or other department   YES NO
    Sent via pneumatic tube system   YES NO
    Other (explain) _____

65. What point-of-care testing is performed in the ED and approximately how many patients per day?
_____

66. If point-of-care testing is performed in the ED, which skill levels are allowed to perform the tests?
_____

67. If point-of-care testing is performed in the ED, how much time per day is spent by ED personnel in quality assurance activities with the testing instruments?
_____

68. How is the ED doctor notified when laboratory results are available?
_____
_____

69. Are there one or more radiology rooms in the ED suite?   YES NO   # of rooks:
_____ Diagnostic imaging: YES NO   CT: YES NO   Other (explain)
_____

70. If yes, what hours per day is a radiology tech on-duty in the ED?
_____

72. How is the ED doctor notified when radiology results are available?
_____

73. For the **patient transport** activities performed by ED staff please explain including the number of trips per week, the skill level usually involved, and the average time per trip.

Location	Trips per week	Usual Skill(s)	Time per Trip
ED to diagnostic radiology			
ED to CT or MRI			
ED to ultrasound			
Diagnostic radiology to ED			
CT or MRI to ED			
Ultrasound to ED			
ED to OR			
ED to patient floor			
ED to another facility			
ED to ASU			
ED to labor & delivery			
ED to mental health unit			
Other -			
Other -			

74. Staff from which department cleans and remakes the stretchers used to transport patients to and from the ED?

_____

75. What department is responsible for seeing that the ED is stocked with linens?

_____

76. If ED staff, who performs this function, and how many hours per day does it take?

_____

77. How much time is spent in trips out of the ED, which skill level normally makes the trips, and how many trips per week?

Location	Skill Level	Time per Trip	Trips per week
Laboratory	_____	_____	_____
Blood Bank	_____	_____	_____
SPD/Central Supply	_____	_____	_____
Medical Records	_____	_____	_____
Pharmacy	_____	_____	_____
Food Service	_____	_____	_____
Mail Room	_____	_____	_____
Radiology	_____	_____	_____
Other (explain)	_____	_____	_____

78. What percent of the ED patients have an IV **started by ED personnel**? _____

79. Are all IV's started by nurses, or are there EMTs or others who are approved to start the IV's?
_____

80. Is the ED staff responsible for performing their own EKGs, or does someone from another department come to do the procedure? ED only: _____, Other staff only: _____, split: _____

81. If ED only or split, please explain including the average number or percent of patients having an   EKG performed by ED staff daily:
_____
_____

82. Which skill level in the ED normally performs the EKGs? _____

83. What is the average number of requisitions per ED patient? _____

84. Who compiles the patient charges per visit, and how many minutes does this take for the average visit?
_____

85. Is the ED staff responsible for crutch fitting or crutch training?   YES NO PARTIAL

86. If yes or partial, please explain including the average number of patients per year, and the average time per patient for crutch fitting or training:
_____
_____

87. How many patients per 24 hours must be assisted with translation due to speaking a language other than English?
_____

88. How much time per shift is spent on change of shift report (number of times per day times the number of staff attending each report)?
_____

89. Do unit personnel perform a change of shift narcotics count? YES NO

90. If yes, is this done two or three times per 24 hours? _____ times
91. On average, how long does it take to perform the change of shift narcotic count?

92. Is there a PYXIS (or similar) system used for medication supply or is it stocked on each unit by Pharmacy?   YES NO

93. How long does it take to do the paperwork and make the other contacts necessary to admit a patient from the ED?
_____

94. Is someone from the ED responsible for checking admitted patient valuables? YES NO

Sometimes

95. If yes or sometimes, how many patients per day or for what percentage of ED admissions does this happen, which skill level normally performs the activity, and how many minutes does it take?

_____

_____

96. For patients to be admitted how long is the average wait from decision to admit until the patient leaves the ED?

_____

97. Is there an area in the ED used to hold patients that are admitted prior to transfer to the inpatient unit?   YES NO

98. Are statistics maintained on the number of patients held in the ED prior to transfer to the inpatient units (or to another hospital)?   YES NO

99. If yes, please either provide a copy of the statistics or indicate the number or percent of admits held and estimate the average length of stay.

_____

_____

100. If no statistics are maintained yet some patients are held prior to transfer, please estimate the number or percentage of patients and the average length of stay.

_____

_____

101. If there is a separate chest pain observation area within the ED, are patients "discharged" from the ED and "admitted" to the CPOU?   YES NO

102. If yes, please share any statistics you have on the CPOU, e.g., number of patients admitted per month, average hours in unit, etc.

_____

_____

103. If there is a CPOU within the ED but the patients are not separated via discharge and admission, what statistics are available?

_____

_____

104. How much time is spent per 24 hours in ordering and obtaining nourishments or meals for patients and what skill level normally does this activity?

_____

_____

105. How many hours per week are spent by unit personnel in ordering, checking and putting away supplies? What skill level is usually assigned this responsibility?

Supply Type	Hours per Week	Skill Level
Food service items	_____	_____
Forms/office items	_____	_____
Medical/surgical	_____	_____
Other _____	_____	_____

106. How many deaths per year occur in the ED? _____

107. How many patients are there **per year** that require special police or other agency reports, e.g., rape protocols, shootings, animal bites, infectious disease, child abuse, and what is the average time for each type of report?

Report Type	Average Number	Average Time	Skill Level
Rape protocol	_____	_____	_____
Police protocol	_____	_____	_____
Mental health protocol	_____	_____	_____
Animal bite or exposure	_____	_____	_____
Infectious disease protocol	_____	_____	_____
Child abuse protocol	_____	_____	_____
Drug abuse protocol	_____	_____	_____
Other (explain) _____	_____	_____	_____

108. Which method best describes **between patient clean-up** responsibility (if mixed, give percents or explain how it varies by shift):

Housekeeping department employees: _____

Housekeeping staff on ED payroll: _____

ED nursing and support staff doing own: _____

109. Which method best describes **daily cleaning** responsibility (if mixed, give percents or explain how it varies by shift):

Housekeeping department employees: _____

Housekeeping staff on ED payroll: _____

ED nursing and support staff doing own: _____

110. Is there a post-visit telephone program in effect?   YES NO

111. If yes, please explain including which skill levels are involved, the number or percent of patients contacted, and the total time spent per week on this activity: _____

_____

112. How long is the orientation period until the new employee can perform the majority of duties (recognizing that it takes months until a new employee is completely oriented)?

Skill Level	Orientation Weeks
RNs	_____
Aides	_____
Clerical	_____
Others	_____

113. How many employees were oriented in the past 12 months and how many do you anticipate orienting in the next 12 months?

Skill Level	Last 12 Months	Next 12 Months
RNs	_____	_____
Aides	_____	_____
Clerical	_____	_____
Other	_____	_____
Other	_____	_____

114. What is the schedule or plan for inservice education?

_____

_____

115. How many or what percent of the staff attend the inservice activities?

_____

116. What regularly scheduled meetings, including committee and management meetings, does the unit nurse leader **and/or** staff members attend? For each meeting please provide the meeting name, number of staff attending, the skill level or levels, the average meeting length, and the frequency per month.

Meeting Name	Number	Skill	Length	Frequency/Month
Inservice	_____	_____	_____	_____
Unit Staff meeting	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

117. Is there an ongoing QA process in which the unit nurse leader and/or staff participate? YES NO

118. **If yes**, please specify the total time per month spent by:

Skill Level	Time per Month
Unit nurse leader	_____
Other staff members	_____

119. If there are one or more layers of management or supervision between the nursing director and staff, please explain the structure and quantify the percentage of time these individuals spend on management or supervisory functions:

_____
_____
_____

120. Is the ED responsible for staffing other areas, e.g., cast room, radiology special procedure room, endoscopy, etc.?

YES NO

121.   If yes, please explain including the location, skill levels, and number of hours per week:

_____

122.   Is there any other staff assigned to the ED that might not be typical, e.g., telephone operators, admitting staff, social workers?   YES NO

123.   If yes, please explain including what staff, how many FTEs, etc.:

_____
_____

124. Do ED staff members stock or re-supply ambulances that bring patients to the facility?
YES NO
125. If yes, how much time per week is spent in this activity?

_____

126. Is there anything else about the ED that you would like to bring to our attention? YES NO

127. If yes, please explain:

_____
_____
_____
_____
_____
_____

128.   Are there any other time consuming activities that ED staff perform that take at least two hours per week to perform?   YES NO

129.   If yes, please explain including the activity, the time spent per week, and the skill level usually performing the activity.

_____
_____
_____
_____
_____

If you have any questions while completing this survey, please call:
John L. Templin, Jr., FHIMSS, FACHE, FAAHC, CPHIMS
(518) 893-7760; FAX 893-2215; e-mail john@templin.com

TEMPLIN MANAGEMENT PRODUCTIVITY SURVEY

EMERGENCY DEPARTMENT (ED)

Hospital Name: _____ Date _____

Cost Center Number: _____ Person Completing Survey: _____

Title: _____ E-mail address: _____

Phone Number: (____) _____ Extension: _____ Fax: _____

INSTRUCTIONS: Please answer all questions by circling the correct response, or by filling in the blanks. Do not take a wild guess if you do not know the answer. The question can be discussed with the consultant during a subsequent interview, if necessary.

1. What is the length of the <u>paid</u> work week for ED employees, e.g., 37.5 or 40.0 hours: _____
    If this varies by skill level, please explain: _____

2. Is the policy for employee breaks two 15-minute breaks per day?   YES NO

3. If no, what is the policy? _____
    _____

4. Does the break policy state the employee is entitled to the breaks, or that the employee only gets the breaks if time is available? _____

5. Is the **meal break** completely non-paid time, e.g., 8.5 hours at the hospital for 8.0 hours pay?
                                                                YES NO

6. If no, what is the policy for paying for part or the entire meal break? _____
    _____

7. What is the budgeted paid FTEs for this cost center? _____ FTEs.
    If it is easier, please supply a copy of the staffing budget.

8. Do the budgeted FTEs include annual allowances for overtime, replacements for vacation, sick time or holiday time off; or allowances for on-call time?   YES NO

9. If no, are there budgeted hours or FTEs for these items?   YES NO

10. If yes, and if not included in the question 7 answer, what are the budgeted FTEs or annual hours for replacement staff? _____

11. Is the actual paid staff level, including paid overtime, different from the budgeted paid FTEs by more than 0.5 FTE?   YES NO

12. If yes, what is the actual paid staff level? _____

13. What are the numbers of budgeted, actual FTEs and actual people, by position title? For example, if the budget is 6.4 paid FTEs and if there are 5 full time employees and 2 part time employees who are 3 days per week each (0.6 FTE each), the correct answer is 6.4 budgeted FTEs, 6.2 actual paid FTEs, and 7 actual people. If your position titles are different, please correct or add the job titles. **Where there are two titles shown for a position, please cross out the incorrect title**.

Position Title	Budgeted FTEs	Actual FTEs	Actual People
Medical Director			
Other doctors			
Physician assistants			
Director (RN)			
Manager / Supervisor			
Nurse Manager / Head Nurse			
Assistant manager / assistant head			
Coordinator			
Charge nurses			
Clinical specialist / instructor			
Mental health evaluators			
Social workers			
Staff RNs			
LPN or LVNs			
EMTs			
Housekeeping aides			
Nursing assistants			
Orderlies			
Unit business support			
Unit secretary			
Unit clerk			
Registrar			
Admitting staff			
Other -			
Other -			
Totals			

14. What percentage of the paid staff is vacation, holiday and sick time (or paid time off) rather than worked time? (typically 10 - 16%) _____%

   NOTE: if it is easier, please attach a year-to-date payroll report.

15. What is the daily worked staffing for this cost center by day of week by shift? Include manage-

ment, supervision, and clerical support.

Days	Skill / title	Weekdays	Saturdays	Sundays	Holidays
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Evening	Skill / title	Weekdays	Saturdays	Sundays	Holidays
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Nights	Skill / title	Weekdays	Saturdays	Sundays	Holidays
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

16. Are there any personnel working in the ED not on the ED payroll, e.g., radiology techs?   YES NO

17. If yes, please explain: _____
_____

18. What were the annual volumes for the most recent fiscal year, and year-to-date for the current fiscal year?

	Last Fiscal Year	This Fiscal Year	Months YTD
Total visits	_____	_____	_____
Fast track visits	_____	_____	
Elopements/AMA	_____	_____	
Left w/o being seen	_____	_____	
Employee health	_____	_____	
Admissions	_____	_____	

19. What is the percent distribution of visits by shift (by time of registration)?
        Days _____, Evenings _____, Nights _____

20. How many beds or rooms are there in the ED?   Regular/general: ____, heart: __, isolation: ___,

Templin Management Productivity Survey, Emergency Department (ED)

pediatric: _____, trauma: _____, chest pain observation: _____ fast track/urgent care: _____,
other (explain): _____

21. Is data routinely maintained on any of the following?   Average
      Arrival rates by hour of the day?   YES NO   _____
      Average length of stay for all patients?   YES NO   _____
      Average length of stay for treat and release patients?   YES NO   _____
      Average length of stay for admitted patients?   YES NO   _____
      Number of patients in the ED by hour of day?   YES NO   _____
      If yes to any of these questions, please supply the data.

22. Is there a separate express care, urgent care or fast track portion of the ED?   YES NO

23. If yes, what hours of the day and days per week is it open? How is it staffed?

Day of Week	Open	Close	# Staff Assigned (by skill mix)
Monday	____	____	_____
Tuesday	____	____	_____
Wednesday	____	____	_____
Thursday	____	____	_____
Friday	____	____	_____
Saturday	____	____	_____
Sunday	____	____	_____

24. Is the ED used for procedures such as minor surgery?   YES NO

25. If yes, what are the procedures, the annual volumes and the average time per procedure?

Procedure	Annual Volume	Average Time
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Other (explain) _____	_____	_____

26. Is the ED used to house patients overnight during periods of high census?   YES NO

27. If yes, during what parts of the year, how many patients are held overnight, and what data is available for analysis? _____
_____

28. Is there a patient classification (acuity) system used in the ED for nursing?   YES NO

29. If yes, please explain and please attach a copy of any period or year-to-date data:
_____
_____

30. Does the classification system have an average number of nursing minutes per category? YES NO

31. If yes, please attach a copy of the standards.

32. Is there an acuity system used in the ED for billing (usually 5 or 6 levels)?   YES NO

33. If yes, please explain and **please attach a copy of any period or year-to-date data**:
_____
_____

34. Does the billing acuity system have an average number of doctor minutes per category? YES NO

35. If yes, please attach a copy of the standards.

36. Is there a manual logbook maintained for the ED?   YES NO

37. If yes, does the book contain:

Entry Type	**YES**	**NO**
patient arrival time	___	___
patient departure time	___	___
admit or discharge status	___	___
reason for visit (diagnosis or presenting symptoms)	___	___
a billing or classification category	___	___
Other (explain) _____	___	___

38. Is there a computer daily log printed for the ED?   YES NO

39. If yes, does the daily log contain:

Entry Type	**YES**	**NO**
patient arrival time	___	___
patient departure time	___	___
admit or discharge status	___	___
reason for visit (diagnosis or presenting symptoms)	___	___
a billing or classification category	___	___
Other (explain) _____	___	___

40. Are there staggered start times for some nursing staff members, e.g., 7 - 3:30, 8 - 4:30, or longer shifts, such as 10 or 12 hours?   YES NO

41. If yes, please explain including the shift hours and the number of staff by skill level who work these shifts. Or, **please attach a copy of the four-week schedule**. _____
_____

42. Is data maintained on the number or percentage of patients who arrive by ambulance, or on the number or percentage of patients that arrive by each method of transport?   YES NO

43. If yes, please supply the data. **If no, please estimate the daily ambulance average**: _____

Templin Management Productivity Survey, Emergency Department (ED)

Method	Percent	Number	
Ambulance	_____	_____	
Car	_____	_____	
Walk-in	_____	_____	
Other (explain)	_____	_____	_____

44. What are the hours of clerical or secretarial coverage by shift and by day of week? Please be sure to specify start and end hours so that the consultants can see when there is less than full shift coverage. Only include personnel charged to this cost center, not registrars charged to finance/admitting.

Shift Covered	**Clerical Coverage Start and End Time**
Day shift, weekdays	_____
Day shift, weekends	_____
Evening shift, weekdays	_____
Evening shift, weekends	_____
Night shift, weekdays	_____
Night shift, weekends	_____

45. Is there a nurse with a primary assignment of triage around the clock or only at certain times of the day? Please explain: _____
_____

46. For a patient that does not arrive by ambulance, is the first contact for the patient a registrar or a triage nurse? _____

47. If the first contact is a registrar (sometimes called quick registration), on the average, how many minutes does it take for the initial registration process? _____

48. On the average, how long does it take for the triage process for patients that do not arrive by ambulance? _____

49. Are there test-ordering protocols that can be invoked by the triage nurse?   YES NO
Comment, if necessary: _____

50. If yes, do the protocols include both laboratory and radiology?   YES
NO   Explain if split:
_____
51. Approximately what percent of the patients have protocols used? _____

52. How long does it take for the complete registration process? _____
If this varies for patients in the computer system versus first time patients, please explain:
_____
_____

53. Approximately what percent of the patients have prior visit data in the computer system?
_____

54. Is registration normally performed at the bedside or in a traditional registrar booth setting?

    _____

55. If traditional registration, are there plans to move to bedside registration?   YES NO

56. If yes, please explain: _____

    _____

57. What computer support is available in the ED?

Function	**YES**	**NO**
Flow chart	___	___
Lab order entry	___	___
Lab results availability	___	___
Imaging order entry	___	___
Imaging results (digital or voice report)	___	___
On-line medical record	___	___
Patient care plan revisions	___	___
Patient classification system	___	___
Pharmacy order entry	___	___
Other _____	___	___

    _____

58. Are data maintained on the average time from triage to registration, registration to patient seen by nursing, seen by nursing to seen by doctor, etc.?   YES NO

59. If yes, please share any data or reports that might be available.

60. What percent of the patients requiring laboratory testing have the venipunctures performed by ED personnel versus someone from the laboratory coming to obtain the specimen? _____

61. What percent of the patients have laboratory testing? _____

62. Is there any data on average length of time from specimen procurement until the results are available in the ED?   YES NO

63. Are there published laboratory turnaround time targets?   YES NO
    Please share any laboratory turnaround time data that might be available.

64. How are laboratory specimens sent to the laboratory?

Carried by lab staff	YES	NO
Carried by ED staff	YES	NO
Carried by transport or other department	YES	NO
Sent via pneumatic tube system	YES	NO
Other (explain) _____		

65. What point-of-care testing is performed in the ED and approximately how many patients per day?

    _____

66. If point-of-care testing is performed in the ED, which skill levels are allowed to perform the tests?
_____

67. If point-of-care testing is performed in the ED, how much time per day is spent by ED personnel in quality assurance activities with the testing instruments? _____

68. How is the ED doctor notified when laboratory results are available? _____
_____

69. Are there one or more radiology rooms in the ED suite?   YES NO   # of rooms: _____
Diagnostic imaging: YES NO   CT: YES NO   Other (explain) _____

70. If yes, what hours per day is a radiology tech on-duty in the ED? _____

72. How is the ED doctor notified when radiology results are available? _____
_____

73. For the **patient transport** activities performed by ED staff please explain including the number of trips per week, the skill level usually involved, and the average time per trip.

Location	Trips per week	Usual Skill(s)	Time per Trip
ED to diagnostic radiology			
ED to CT or MRI			
ED to ultrasound			
Diagnostic radiology to ED			
CT or MRI to ED			
Ultrasound to ED			
ED to OR			
ED to patient floor			
ED to another facility			
ED to ASU			
ED to labor & delivery			
ED to mental health unit			
Other -			
Other -			

74. Staff from which department cleans and remakes the stretchers used to transport patients to and from the ED? _____

75. What department is responsible for seeing that the ED is stocked with linens?
_____

76. If ED staff, who performs this function, and how many hours per day does it take?
_____

Templin Management Productivity Survey, Emergency Department (ED)

77. How much time is spent in trips out of the ED, which skill level normally makes the trips, and how many trips per week?

Location	Skill Level	Time per Trip	Trips per week
Laboratory	_____	_____	_____
Blood Bank	_____	_____	_____
SPD/Central Supply	_____	_____	_____
Medical Records	_____	_____	_____
Pharmacy	_____	_____	_____
Food Service	_____	_____	_____
Mail Room	_____	_____	_____
Radiology	_____	_____	_____
Other (explain)	_____	_____	_____

78. What percent of the ED patients have an IV **started by ED personnel**? _____

79. Are all IV's started by nurses, or are there EMTs or others who are approved to start the IV's?
    _____

80. Is the ED staff responsible for performing their own EKGs, or does someone from another department come to do the procedure? ED only: _____, Other staff only: _____, split: _____

81. If ED only or split, please explain including the average number or percent of patients having an EKG performed by ED staff daily: _____
    _____

82. Which skill level in the ED normally performs the EKGs? _____

83. What is the average number of requisitions per ED patient? _____

84. Who compiles the patient charges per visit, and how many minutes does this take for the average visit? _____

85. Is the ED staff responsible for crutch fitting or crutch training? YES NO PARTIAL

86. If yes or partial, please explain including the average number of patients per year, and the average time per patient for crutch fitting or training: _____
    _____

87. How many patients per 24 hours must be assisted with translation due to speaking a language other than English? _____

88. How much time per shift is spent on change of shift report (number of times per day times the number of staff attending each report)? _____

89. Do unit personnel perform a change of shift narcotics count? YES NO

90. If yes, is this done two or three times per 24 hours? _____ times

Templin Management Productivity Survey, Emergency Department (ED)

91. On average, how long does it take to perform the change of shift narcotic count?

92. Is there a PYXIS (or similar) system used for medication supply or is it stocked on each unit by Pharmacy?   YES NO

93. How long does it take to do the paperwork and make the other contacts necessary to admit a patient from the ED? _____

94. Is someone from the ED responsible for checking admitted patient valuables? YES NO Sometimes

95. If yes or sometimes, how many patients per day or for what percentage of ED admissions does this happen, which skill level normally performs the activity, and how many minutes does it take? _____ _____

96. For patients to be admitted how long is the average wait from decision to admit until the patient leaves the ED? _____

97. Is there an area in the ED used to hold patients that are admitted prior to transfer to the inpatient unit?   YES NO

98. Are statistics maintained on the number of patients held in the ED prior to transfer to the inpatient units (or to another hospital)?   YES NO

99. If yes, please either provide a copy of the statistics or indicate the number or percent of admits held and estimate the average length of stay. _____ _____

100. If no statistics are maintained yet some patients are held prior to transfer, please estimate the number or percentage of patients and the average length of stay.
    _____
    _____

101. If there is a separate chest pain observation area within the ED, are patients "discharged" from the ED and "admitted" to the CPOU?   YES NO

102. If yes, please share any statistics you have on the CPOU, e.g., number of patients admitted per month, average hours in unit, etc. _____ _____

103. If there is a CPOU within the ED but the patients are not separated via discharge and admission, what statistics are available? _____ _____

104. How much time is spent per 24 hours in ordering and obtaining nourishments or meals for patients and what skill level normally does this activity? _____ _____

105. How many hours per week are spent by unit personnel in ordering, checking and putting away supplies. What skill level is usually assigned this responsibility?

Supply Type	**Hours per Week**	**Skill Level**
Food service items	_____	_____
Forms/office items	_____	_____
Medical/surgical	_____	_____
Other _____	_____	_____

106. How many deaths per year occur in the ED? _____

107. How many patients are there **per year** that require special police or other agency reports, e.g., rape protocols, shootings, animal bites, infectious disease, child abuse, and what is the average time for each type of report?

Report Type	**Average Number**	**Average Time**	**Skill Level**
Rape protocol	_____	_____	_____
Police protocol	_____	_____	_____
Mental health protocol	_____	_____	_____
Animal bite or exposure	_____	_____	_____
Infectious disease protocol	_____	_____	_____
Child abuse protocol	_____	_____	_____
Drug abuse protocol	_____	_____	_____
Other (explain) _____	_____	_____	_____

108. Which method best describes **between patient clean-up** responsibility (if mixed, give percents or explain how it varies by shift):
Housekeeping department employees: _____
Housekeeping staff on ED payroll: _____
ED nursing and support staff doing own: _____

109. Which method best describes **daily cleaning** responsibility (if mixed, give percents or explain how it varies by shift):
Housekeeping department employees: _____
Housekeeping staff on ED payroll: _____
ED nursing and support staff doing own: _____

110. Is there a post-visit telephone program in effect?   YES NO

111. If yes, please explain including which skill levels are involved, the number or percent of patients contacted, and the total time spent per week on this activity: _____
_____

112. How long is the orientation period until the new employee can perform the majority of duties (recognizing that it takes months until a new employee is completely oriented)?

Skill Level	Orientation Weeks
RNs	_____
Aides	_____
Clerical	_____
Others	_____

113. How many employees were oriented in the past 12 months and how many do you anticipate orienting in the next 12 months?

Skill Level	Last 12 Months	Next 12 Months
RNs	_____	_____
Aides	_____	_____
Clerical	_____	_____
Other	_____	_____
Other	_____	_____

114. What is the schedule or plan for inservice education? _____
_____

115. How many or what percent of the staff attend the inservice activities? _____

116. What regularly scheduled meetings, including committee and management meetings, does the unit nurse leader **and/or** staff members attend? For each meeting please provide the meeting name, number of staff attending, the skill level or levels, the average meeting length, and the frequency per month.

Meeting Name	Number	Skill	Length	Frequency/Month
Inservice	_____	_____	_____	_____
Unit Staff meeting	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

117. Is there an ongoing QA process in which the unit nurse leader and/or staff participate? YES NO

118. **If yes**, please specify the total time per month spent by:

Skill Level	Time per Month
Unit nurse leader	_____
Other staff members	_____

119. If there are one or more layers of management or supervision between the nursing director and staff, please explain the structure and quantify the percentage of time these individuals spend on management or supervisory functions: _____
_____
_____

120. Is the ED responsible for staffing other areas, e.g., cast room, radiology special procedure room, endoscopy, etc.?   YES NO

121. If yes, please explain including the location, skill levels, and number of hours per week:
   _____

122. Is there any other staff assigned to the ED that might not be typical, e.g., telephone operators, admitting staff, social workers?   YES NO

123. If yes, please explain including what staff, how many FTEs, etc.: _____
   _____

124. Do ED staff members stock or re-supply ambulances that bring patients to the facility? YES NO

125. If yes, how much time per week is spent in this activity? _____

126. Is there anything else about the ED that you would like to bring to our attention? YES NO

127. If yes, please explain: _____
   _____
   _____
   _____
   _____
   _____

128. Are there any other time consuming activities that ED staff perform that take at least two hours per week to perform?   YES NO

129. If yes, please explain including the activity, the time spent per week, and the skill level usually performing the activity. _____
   _____
   _____
   _____
   _____
   _____

If you have any questions while completing this survey, please call:
John L. Templin, Jr., FHIMSS, FACHE, FAAHC, CPHIMS
(518) 893-7760; FAX 893-2215; e-mail john@templin.com

Exhibit 3
Development Of Emergency Department Staffing Standards

	Admissions:	3,600	18.00%		9.86	Admits per day	
	Total Visits:	20,000			54.79	Visits per day	

VARIABLE FUNCTIONS	Visit Percent	Annual Volume	Standard Minutes	Hours/ Visit	Hours/visit by skill level		
					Nurse	Aide	Clerk
Direct Nursing Care by Level							
Follow-up care	4.0%	800	5.00	0.003	0.003		
Brief visit	24.5%	4,900	15.00	0.061	0.061		
Intermediate visit	44.0%	8,800	20.00	0.147	0.147		
Extended visit	21.0%	4,200	40.00	0.140	0.140		
Intensive visit	5.5%	1,100	75.00	0.069	0.069		
Comprehensive visit	1.0%	200	180.00	0.030	0.030		
Direct care activities	100.0%	20,000	27.00	0.450	0.450		
Ancillary nursing activities							
Triage	100.0%	20,000	5.50	0.092	0.092		
Registration (by Central Reg. Staff)	0.0%	0	8.00	0.000	0.000		0.000
IV starts	30.0%	6,000	5.00	0.025	0.025		
Phlebotomy	50.0%	10,000	4.00	0.033	0.023	0.010	
EKG	15.0%	3,650	10.00	0.030	0.006	0.024	
Charges	100.0%	20,000	8.00	0.133	0.050		0.083
DOAs	0.4%	78	60.00	0.004	0.004		
Rape Protocols	0.1%	12	60.00	0.001	0.001		
Child Abuse Protocols	0.1%	18	90.00	0.001	0.001		
Special reports	0.1%	24	60.00	0.001	0.001		
Restock after visit including linens	100.0%	20,000	5.00	0.083	0.025	0.058	
Check Admitted patient valuables	18.0%	3,600	3.00	0.009	0.006	0.003	
ED Admits	18.0%	3,600	30.00	0.090	0.068		0.023
Transport to radiology	45.6%	9,125	7.00	0.053		0.053	
Transport to & from CT scan	2.1%	416	27.00	0.009	0.009		
Transport to car & entrance	9.9%	1,976	6.50	0.011	0.011		
Admission Transport - critical care	8.8%	1,768	30.00	0.044	0.022	0.022	
Admission Transport - M/S	9.2%	1,832	12.75	0.019	0.004	0.016	
Assist with Crutches	0.5%	104	30.00	0.003	0.003		
Room & stretcher clean-up	100.0%	20,000	5.00	0.083	0.017	0.067	
Observation of Patients	10.0%	2,000	40.00	0.067	0.067		
Constant for all visits	100.0%	20,000	10.00	0.167	0.083	0.017	0.067
Ancilliary treatment total hours per visit			57.56	0.959	0.517	0.270	0.173
Variable subtotal hours per visit			84.56	1.409	0.967	0.270	0.173
Personal, fatigue, and delay percent		15.0	12.68	0.211	0.145	0.040	0.026
Pure Variable total hours per visit			97.25	1.621	1.112	0.310	0.198
Target Utilization percent					83.4%	85.0%	80.0%	80.0%
Variable hours per visit at target			116.65	1.944	1.309	0.388	0.248
Annual visit volume		20,000					
Annual paid per FTE		2,080					
Variable worked FTE's recommended				18.69	12.58	3.73	2.38
Variable paid FTE's recommended at PTO add-on of			12.55%	21.04	14.16	4.19	2.68

Exhibit 3, continued
Development Of Emergency Department Staffing Standards

CONSTANT FUNCTIONS	Hours/ Week	Hours/week by skill level		
		Nurse	Aide	Clerk
Administrative & Change of shift report	21.00	21.00		
Narcotics count	3.50	3.50		
Supplies	12.00		10.00	2.00
Trips to other departments	21.50	12.00	7.00	2.50
Inservice Education/Unit Meeting	8.00	6.00	1.00	1.00
Evaluations	0.65	0.42	0.12	0.12
Staff Committee Meetings - 2 hours/month	0.46	0.46		
QC POCT instruments	1.75		1.75	
Orientation - 6 RNs / year @ 6 weeks	23.54	23.54		
Orientation - 2 Aides / year @ 4 weeks	4.92		4.92	
Orientation - 2 clerical / year @ 4 weeks	4.92			4.92
Management - Director & clinical nurse leader @ 0.5 FTE	51.00	51.00		
QA Activities/Chart Review	12.00	5.00		7.00
Dietary Activities	3.50		1.75	1.75
Pure Constant hours recommended per week	168.75	122.92	26.54	19.29
Constant worked FTE's recommended at target	5.05	3.62	0.83	0.60
Variable worked FTE's recommended	18.69	12.58	3.73	2.38
Total worked FTE's recommended	23.74	16.20	4.56	2.99
Variable paid FTE's recommended at PTO of 12.55%	21.04	14.16	4.19	2.68
Constant paid FTE's recommended at PTO of 12.55%	5.68	4.07	0.93	0.68
Total paid FTE's recommended	26.72	18.23	5.13	3.36
Current Budgeted FTEs	28.70	18.40	5.50	4.80
Difference (recommended - budget)	-1.98	-0.17	-0.37	-1.44
Actual FTEs	28.00			
Difference (recommended - Actual)	-1.28			
Recommended standard per visit: 2.47 worked hours				

Exhibit 1 - ED volumes - 2003

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total	%	Cum	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
95					1			1	0.37	0.37						95		95
101						1		1	0.37	0.74							101	101
102									-	0.74								
103									-	0.74								
104				1				1	0.37	1.10			104					104
105									-	1.10								
106									-	1.10								
107	1		1		1			3	1.10	2.21	107		107		107			321
108									-	2.21								
109									-	2.21								
110	1		1					2	0.74	2.94	110		110					220
111									-	2.94								
112									-	2.94								
113									-	2.94								
114				1		2		3	1.10	4.04				114		228		342
115									-	4.04								
116					1			1	0.37	4.41					116			116
117		1		1		1		3	1.10	5.51		117		117		117		351
118			1		1	1		3	1.10	6.62			118		118	118		354
119	2		1	1	2			6	2.21	8.82	238		119	119	238			714
120	1			1		1		3	1.10	9.93	120			120		120		360
121			1			1	1	3	1.10	11.03			121			121	121	363
122	1				1	1	1	4	1.47	12.50	122				122	122	122	488
123				1	2			3	1.10	13.60				123	246			369
124	2		1	2		1		6	2.21	15.81	248		124	248		124		744
125						2		2	0.74	16.54						250		250
126	1		2		3		1	7	2.57	19.12	126		252		378		126	882
127	2		1	1	1	2		7	2.57	21.69	254		127	127	127	254		889
128			2	1	1		2	6	2.21	23.90			256	128	128		256	768
129	2		1	2	2		1	8	2.94	26.84	258		129	258	258		129	1032
130	1	1	1	1	3			7	2.57	29.41	130	130	130	130	390			910
131			2	2	2	2		8	2.94	32.35			262	262	262	262		1048
132	1	1					1	3	1.10	33.46	132	132					132	396
133	1			3	3	4	1	12	4.41	37.87	133			399	399	532	133	1596
134	1	1	1	3	2	1	3	12	4.41	42.28	134	134	134	402	268	134	402	1608
135	3	2		3		1		9	3.31	45.59	405	270		405		135		1215
136	2	1	1	1	1			6	2.21	47.79	272	136	136	136	136			816
137	1	1	1				1	4	1.47	49.26	137	137	137				137	548
138				1	1	2	3	7	2.57	51.84				138	138	276	414	966
139	1	1		1	1			4	1.47	53.31	139	139		139	139			556
140	1	2	5		1	1	2	12	4.41	57.72	140	280	700		140	140	280	1680
141		3	1	1		2	1	8	2.94	60.66		423	141	141		282	141	1128
142	2			1	1		1	5	1.84	62.50	284			142	142		142	710
143		2	3				2	7	2.57	65.07		286	429				286	1001
144	1	1	1	1	2	1	2	9	3.31	68.38	144	144	144	144	288	144	288	1296
145	1	3				2	1	7	2.57	70.96	145	435				290	145	1015
146	2	1			1	1		5	1.84	72.79	292	146			146	146		730
147		1			2	1	2	6	2.21	75.00		147			294	147	294	882
148	2		2	2				6	2.21	77.21	296		296	296				888
149		1	2		2		3	8	2.94	80.15		149	298		298		447	1192
150		3	2	1		2	1	9	3.31	83.46		450	300	150		300	150	1350
151	1	4	1	1				7	2.57	86.03	151	604	151	151				1057
152				1			1	2	0.74	86.76				152			152	304
153						1	1	2	0.74	87.50						153	153	306
154	1			1				2	0.74	88.24	154			154				308
155	1	1	2	1			1	6	2.21	90.44	155	155	310	155			155	930
156					1			1	0.37	90.81					156			156
157		1						1	0.37	91.18		157						157
158	1	1				1	1	4	1.47	92.65	158	158				158	158	632
159	1	1					1	3	1.10	93.75	159	159					159	477
160		1					1	2	0.74	94.49		160					160	320
161		3				1	1	5	1.84	96.32		483				161	161	805
162				1				1	0.37	96.69				162				162
163						2		2	0.74	97.43							326	326
164		1	1					2	0.74	98.16		164	164					328
165									-	98.16								
166									-	98.16								
167									-	98.16								
168									-	98.16								
169			1			2		3	1.10	99.26			169			338		507
170			1					1	0.37	99.63			170					170
171									-	99.63								
172	1							1	0.37	100.00	172							172
173									-	100.00								
174			1					1	0.37	100.37			174					174
Totals	39	39	39	39	38	39	39	272	100.00		5315	5695	5452	5244	5034	5281	5569	37590
Average											136.3	146.0	139.8	134.5	132.5	135.4	142.8	138.2