

SURVEY OF 8:00 A.M. SURGERY CASES

397 - 68

AUTHOR: C. McCOLLUM

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COMMUNITY SYSTEMS FOUNDATION

ANN ARBOR • BALTIMORE • INDIANAPOLIS

REGIONAL OFFICE
711 East 65th Street
Indianapolis, Indiana 46220
317-253-1112

January 15, 1968

Dr. Arvine G. Popplewell
Director of Hospitals
Marion County General Hospital
960 Locke Street
Indianapolis, Indiana

Dear Dr. Popplewell,

This letter has been prepared to illustrate the projects and status of the projects being performed by the engineers of Community Systems Foundation.

At our last meeting it was directed by you that priority be assigned to the completion of the "Surgery Delay Analysis" project, and all other projects be turned over to the respective hospital personnel as quickly as possible.

The projects and status of these projects are as follows:

1. PROPOSED BLOOD CHARGE SYSTEM

This project was completed and presented to the hospital by Mr. Robert Vaughan.

2. DIETARY STAFFING ANALYSIS

This project was completed and presented to the hospital by Mr. Robert Vaughan. When General Hospital decides on their approach to the dietary situation, Community Systems Foundation would welcome the opportunity to assist them in any way.

3. PROPOSED PURCHASE ORDER - RECEIVING FORM

At Mr. Witsman's request a study in regards to the above was initiated. Plans were defined to document the present system and then design a new EDP orientated form to replace the old form now in use. When this project was turned over to Mr. Witsman, the present system had not yet been documented, however, an "early stage" form proposal was left with him.

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4. SURGERY DELAY ANALYSIS

This project has been completed by the author and is presented to you under separate cover.

We wish to acknowledge your cooperation in the past and Community Systems Foundation looks forward to working with Marion County General Hospital in the future.

Respectfully yours,

A handwritten signature in cursive script, which appears to read 'Clyde M. Mc Collum', is positioned above the typed name.

Clyde M. Mc Collum
Project Engineer

A SURVEY OF 8:00 A.M.
SURGERY CASES
AT
MARION COUNTY GENERAL HOSPITAL
Indianapolis, Indiana

Date Submitted: January 15, 1968
Project No.: IN-CG-34a
Submitted To: Dr. Arvine G. Popplewell
Director of Hospitals
Marion County General Hospital
Submitted By: Clyde M. McCollum
Project Engineer
Community Systems Foundation



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January 15, 1968

Dr. Arvine G. Popplewell
Director of Hospitals
Marion County General Hospital
960 Locke Street
Indianapolis, Indiana

Dear Dr. Popplewell,

Per your request a survey has been completed by Community Systems Foundation in regards to the delay of 8:00 A.M. surgery cases at General Hospital.

The following report includes only a statistical presentation of facts derived from the survey itself. Because of time limitations imposed by the hospital, the Foundation engineers were able to spend very little time with surgery department personnel and operations. Therefore, conclusions and corrective actions, if any, will be left with your institution.

I would like at this point to acknowledge the cooperation of Mrs. Jones (O.R. supervisor) and those on her staff who made this survey possible.

Respectfully submitted,

Clyde M. Mc Collum
Project Engineer

cc: Mr. R. Steinhour, Administrator

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INTRODUCTION

Mr. Robert Vaughan, in conjunction with Mrs. Jones (surgery supervisor) began a survey of 8:00 A.M. surgeries on 11/15/67 and continued the survey through 12/14/67. Between these dates, the survey was conducted on fourteen separate days. These fourteen days consisted of 63 surgery cases scheduled for 8:00 A.M.

The survey form used and the type of information collected is shown in Figure 1.

In analyzing the accumulated data it was felt by the author that the more important information desired could be obtained from these areas:

- the time the patient entered the operating room
- the time the anesthesiologist entered the operating room
- the time the surgeon began his scrub

These three areas may be compared to one another and conclusions in regards to "early," "late," or "on time" may be drawn. Other information such as "anesthesiologist began," "time of incision," "closure time," etc., are events taking place after arrival and essentially have nothing to do with the reason the party in mind was late, early, or on time.

CSE

Date	O.R.#	8:00 A.M. CASE	
Resident Surgeon	Started Scrub	Incision	Closure
Anesthesiologist	Entered Room	Anes. Start	Anes. Stop
<input type="checkbox"/> General Anes.	<input type="checkbox"/> Local Anes.		
Remarks Regarding Delays:			
Circulating Nurses:			

FIG. 1



COMPILATION AND PRESENTATION OF DATA

Survey data in regards to the three areas mentioned earlier was compiled and put in the form of two types of graphical presentations:

1. Figure 2 presents frequency distributions of
(a) the time the patient arrived at the operating room, (b) the time the anesthesiologist arrived at the operating room, and (c) the time the surgeon began his scrub.

2. Figure 3 presents per cent cumulative distributions of the same events.

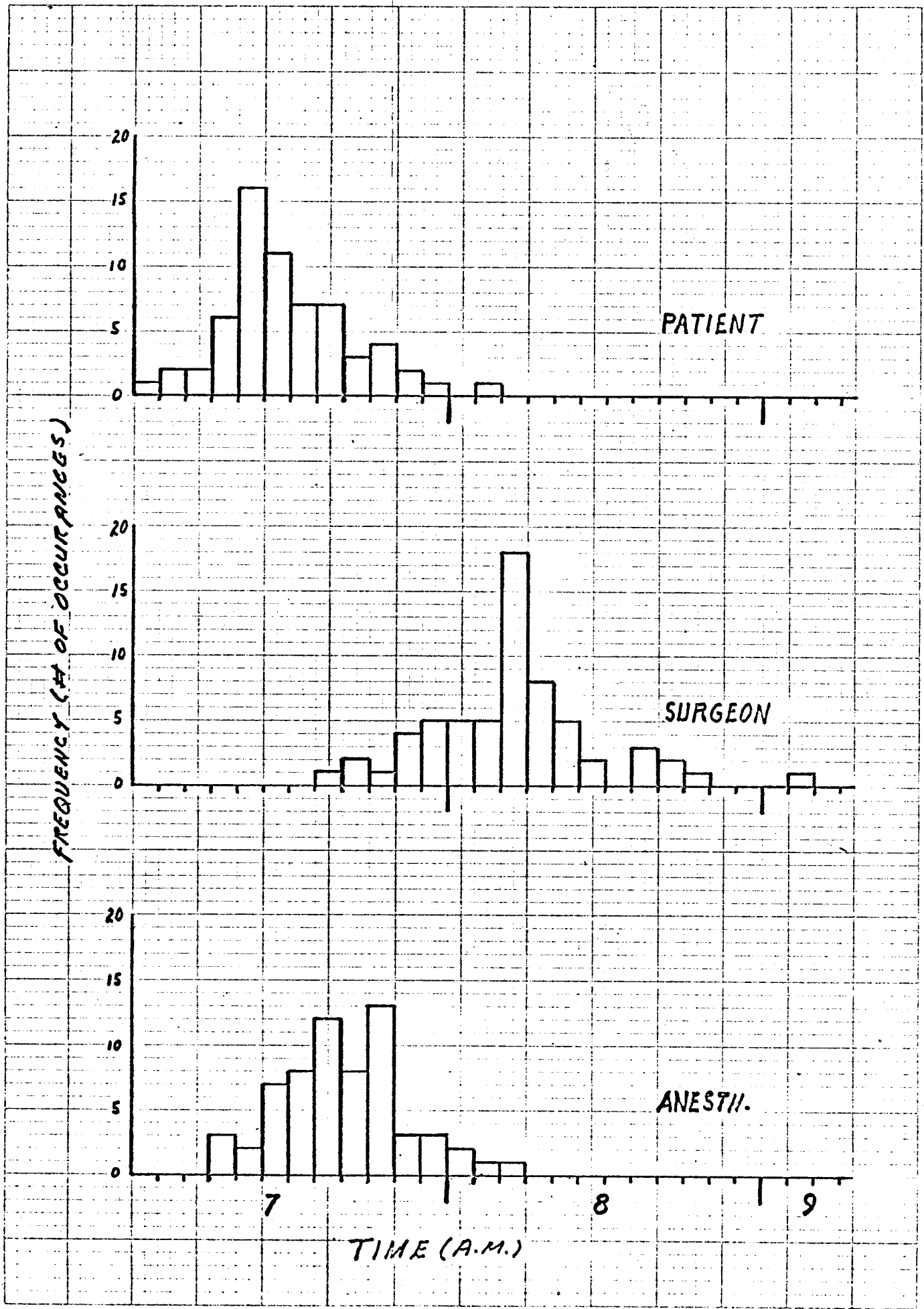


FIG. 2

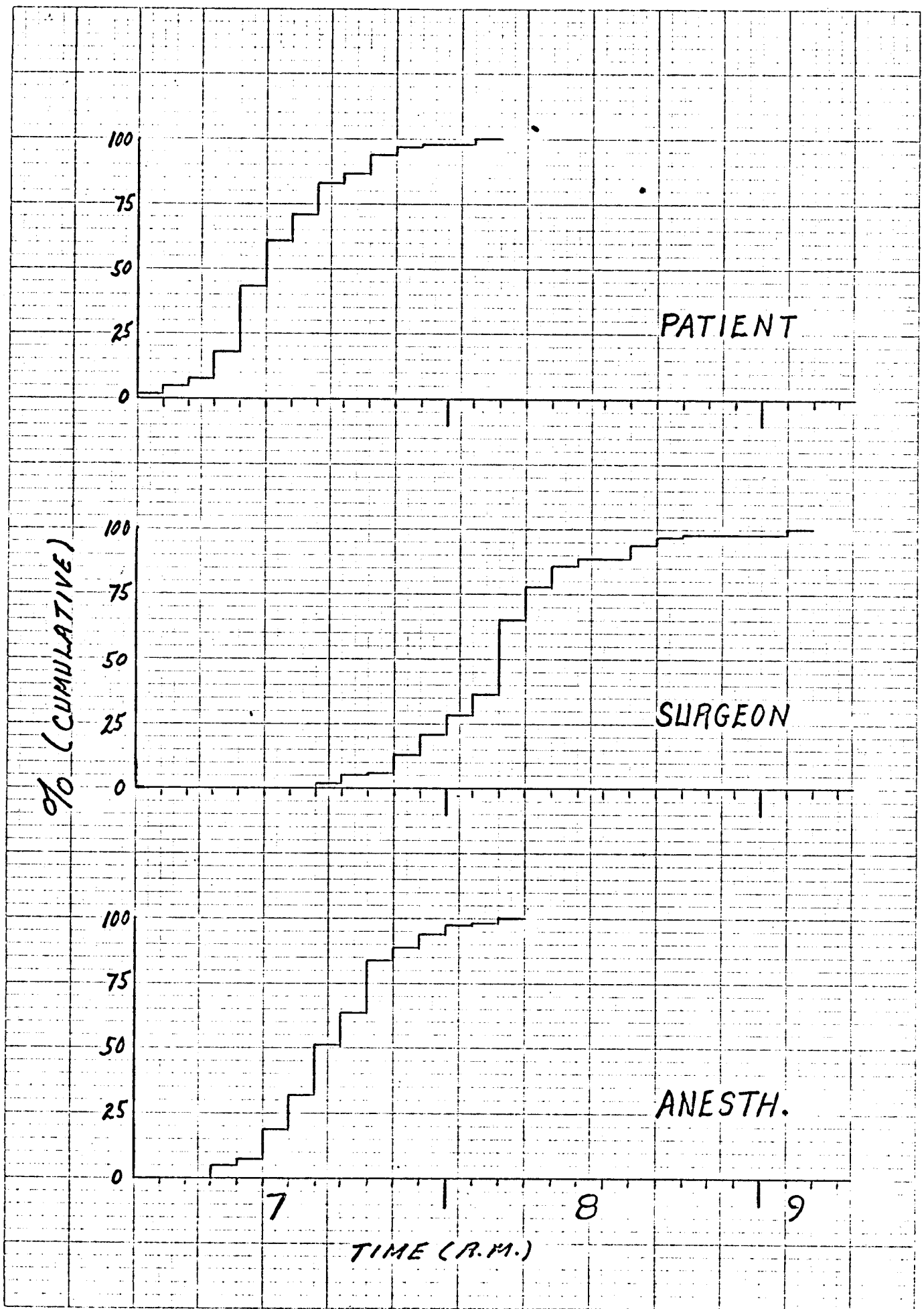


FIG. 3



ANALYZING GRAPHICAL PRESENTATIONS

From Figures 2 and 3, the following facts may be brought out:

Patient Arrival

- the average arrival time of the 63 patients to the operating room was 7:33 A.M.
- from Figure 2 it may be observed that 47 of the 63 patients (75%) arrived at the operating room between 7:20 and 7:40 A.M.
- from Figure 3 it may be observed that 52 of the 63 patients (83%) had arrived at the operating room before or by 7:40 A.M.

Anesthesiologist Arrival

- the average arrival time of the anesthesiologist to the operating room was 7:43 A.M.
- from Figure 2 it may be observed that 48 of the 63 (76%) had arrived between 7:30 and 7:50 A.M.
- from Figure 3 it may be observed that 53 of the 63 (84%) had arrived at the operating room before or by 7:50 A.M.

Initiation of Scrub by Surgeon

- the average time the surgeon initiated his scrub was 8:11 A.M.

- from Figure 2 it may be observed that 41 of the 63 surgeons (65%) began their scrubs between 8:00 and 8:20 A.M.
- from Figure 3 it may be observed that 49 of the 63 surgeons (78%) had begun their scrub before or by 8:20 A.M.

POINTS OF INTERESTAnesthesiologist Starts

- average anesthesiologist starting time is 8:02 A.M.
- 42 of 63, or 67% of anesthesiologists start between 8:00 and 8:15 A.M.
- 59 of 63, or 94% of anesthesiologists start before or by 8:15 A.M.

Incisions

- average incision time is 8:32 A.M.
- 38 of 63, or 60% of incisions start between 8:25 and 8:45 A.M.
- 54 of 63, or 86% of incisions start before or by 8:45 A.M.

Summary of Averages

- average arrival time of patient to operating room is 7:33 A.M.
- average arrival time of anesthesiologist to operating room is 7:43 A.M.
- average anesthesiologist starting time is 8:02 A.M.
- average time the surgeon begins his scrub is 8:11 A.M.
- average incision time is 8:32 A.M.