Final Report

Opportunities for Process and Customer Satisfaction Improvement
Medical Information Services

December 11, 1997

Program and Operations Analysis Department
Industrial Engineering & Operations 481, Senior Practicum
The University of Michigan—Ann Arbor

Catherine Donkers
Liv Hegstad
Tom Solowczuk
Table of Contents

Objectives ........................................................................................................... 3
Introduction & Background .............................................................................. 3
Approach & Methodology ............................................................................... 4
Findings & Conclusions .................................................................................. 6
Recommendations & Implementation Plan ..................................................... 11
  Recommendations for Customer Satisfaction Improvements .................. 11
  Recommendations for Process Improvements .......................................... 12
Approval Section ............................................................................................... 15
Appendices ........................................................................................................ 16
  Flowcharts .................................................................................................... 17
  Customer Satisfaction Survey ...................................................................... 24
  Raw Data ...................................................................................................... 25
  How To Obtain Medical Records ............................................................... 30
  Consent to Release Patient Information Form ............................................ 31
Objectives

Correspondence has identified a need to streamline the processes and to improve the level of customer satisfaction associated with providing medical information to its customers.

Introduction & Background

Medical Information Services (M.I.S.) is comprised of eight units: Administration; Medical Word Processing Center; Payor Liaison; Coding; Correspondence; Record Management; Record Analysis and Completion (RAC); and Quality Management and Information. Our main focus of this project was in Correspondence and RAC. Since The University of Michigan Hospital is a teaching and research facility, records are kept indefinitely whereas other hospitals keep records for about ten years. Since an average of 300 new records are created daily, there is an ever increasing number of medical records that need to be stored, tracked, and retrieved. Correspondence handles a huge volume of about 4,000 requests every month from its customers, and it is accountable for satisfying both psychiatric and non-psychiatric requests for medical information.

Correspondence’s customers who request medical information fell into one of six categories that we have defined in Table 1 as Legal, Patients, Insurance Companies, Physicians, Hospitals, and Other. About 55% of the customers are from hospitals or insurance companies.

Table 1. Categorizing Customers into Logical Groups

<table>
<thead>
<tr>
<th>Category #</th>
<th>Category Label</th>
<th>Includes…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Legal</td>
<td>Lawyers, Police</td>
</tr>
<tr>
<td>2</td>
<td>Patients</td>
<td>Patients, Family Members</td>
</tr>
<tr>
<td>3</td>
<td>Insurance Companies</td>
<td>Insurance Providers, Claims Adjusters</td>
</tr>
<tr>
<td>4</td>
<td>Physicians/Care Providers</td>
<td>Physicians, Nurses, Counselors</td>
</tr>
<tr>
<td>5</td>
<td>Hospitals</td>
<td>Hospitals, Medical Centers, Group Homes, Health Associations</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>Non-Profit Organizations, Schools, Prisons, VA, Government Agencies, Copy Services, Other companies</td>
</tr>
</tbody>
</table>

Currently, the original medical records (OMRs) for psychiatric and non-psychiatric are not all kept in the same location. Records are filed by the three digits before the last digit; these numbers are designated the “terminal digits.” Non-psychiatric records with terminal digits 1.00 to 7.14 are kept at Green Rd; this comprises about 70% of the total OMRs. Non-psychiatric records with terminal digits 7.15 to 9.99 are kept in the basement of the Taubman Center; this comprises about 30% of the total OMRs. Psychiatric records are not stored in the same way as non-psychiatric records. Psychiatric records are located at Riverview, 9C, CAPH (Room 3E), and Whitmore Lake. Whitmore Lake houses inactive records (hard copy and microfiche), and archived records. Only current records are kept in the record room at 3E—in other words, only records for patients seen within the last 6-12 months are kept in this room. Otherwise, a physician signs a termination and sends the record back to its “file,” which is kept either at Taubman or Green Rd, according to its terminal digits.

When Correspondence receives requests, it logs the request into the online CORR system and determines if this request is a medical emergency. If it is a medical emergency, the online
Medical Record Locator (MRL) system is used to obtain the medical record immediately. If the request is not deemed a medical emergency then the request is placed in a daily file to await receipt of the medical record. Some medical information such as discharge summaries and lab tests are available electronically; in this case, a medical record would not need to be retrieved. For information that is not available electronically, a medical record needs to be retrieved. After the pertinent medical information is flagged, a Hospital Correspondence Corporation (HCC) copies the medical information, logs out the request, and mails the medical information to the requester.

When a request for psychiatric information is received, it does not follow a similar flow to Correspondence requests because psychiatric records are not tracked in MRL. Instead, these records are tracked using a physical index card catalog system. In addition, requests for psychiatric records are not logged in the CORR system. Once the record is located and the information is flagged, the information is copied and sent to the requester.

**Approach & Methodology**

The following steps outline the approach we followed in order to achieve our objectives.

- Defined Scope of Project
- Identified Objectives
- Presented Project Proposal to Coordinator & Client
- Conducted Interviews
- Flowcharted Processes
- Developed Customer Satisfaction Survey
- Conducted Survey / Collected Data
- Analyzed Data
- Outlined Existing Problems
- Obtained Feedback of Results
- Generated Recommendations
- Devised Implementation Plan
- Projected Benefits

We focused our efforts on improving overall customer satisfaction and improving any inefficient processes. The scope of our project did not include Record Analysis and Completion (formerly Medical Record Data Quality). Although we recognize that many elements of record completion and analysis affect the efficiency of the process flows, we did not have enough resources and time to tackle recommending opportunities for improvement for these elements (such as loose sheet filing, storage/retrieval, shadow charts, dictation, record delivery).

We conducted interviews with employees in Correspondence; Riverview Outpatient Psychiatry; Child & Adolescent Psychiatry; Adult Inpatient Psychiatry, RAC; and Record Retrieval. Flowcharts already existed for Correspondence activities; we verified these process steps according to the information obtained from our interviews. Since flowcharts did not exist for any psychiatric-related flows, we needed to create these to identify any non-value-added...
activities. These activities can be eliminated, so that efforts can be focused or on adding value to the service. Our process flows are included in the Appendix.

After completing our interviews we developed a customer satisfaction survey, which included feedback from our coordinator, client, and interviewees. Unfortunately we did not have enough time to conduct this survey via mail so we conducted it over the telephone. This survey was designed to obtain feedback from the customers of Correspondence in areas such as: customer type, request type, actual turnaround time, customer complaints, service rating, and voice of the customer.

From a computer-generated list of customers from June 1997 through August 1997, we counted the number of customers in each of the six categories mentioned previously. From this total population size of 10,041 customers, we took a random sample of 200 to survey over the phone. Since this is a relatively small sample size, we wanted to make the sample as representative as possible of the population. Therefore, the percentage-wise breakdown of customers is the same in both cases. For example, since we found that 13 percent of the total population was patients, we decided that 13 percent of the 200 customers we surveyed should be patients. Figure 1 shows the actual percentages of each category of customer for our sample size.

![Figure 1. Division of Correspondence Customer Base (Jun97-Aug-97)](image)

About 55% of the customers were hospitals and insurance companies. Requests generated by attorneys, patients, and physicians are fairly close in number. Only a very small number of requests from our "Other" category are received.

Our data from the surveys was entered into a database so that a summary of our data would be easier and more accurate. From our data we formed a Pareto analysis chart to highlight the areas in which common customer complaints fell. Additional analyses regarding types of requests, actual turnaround time, and world wide web survey questions were generated so that we could highlight opportunities for improvement. From these charts and graphs we were able to draw some conclusions about the information they represented. This is discussed further in the "Findings & Conclusions" section of this report. We sought feedback from the results of our data from our client, coordinator, and Sandy Hoffman. It appears that our data is showing results that are consistent with Sandy's expectations, if not slightly better than the current situation.
With data in hand, we outlined where we saw opportunities for improvement and generated a list of recommendations to take advantage of these opportunities. Along with our recommendations, we devised a plan to implement these recommendations and what the projected benefits would be to the department as a result of implementing our recommendations.

Findings & Conclusions

Volume of Requests
Correspondence receives about 1,000 requests per week for medical information. The volume of psychiatric requests is between just five to ten percent of the volume of non-psychiatric requests. Table 2 shows that there is an average of about 75 requests per week among 9C, Riverview, and CAPH. Spending an average of 30 minutes per request, this yields a total time of 37.5 hours to handle all psychiatric requests. One person could be responsible for dealing solely with psychiatric requests in a regular 40-hr work week given the same demand.

<table>
<thead>
<tr>
<th></th>
<th># requests per day</th>
<th># requests per week</th>
<th>TOTAL Hours / wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>9C</td>
<td>5 - 10</td>
<td>25 - 50</td>
<td>12.5 - 25</td>
</tr>
<tr>
<td>Riverview</td>
<td>5 - 6</td>
<td>25 - 30</td>
<td>12.5 - 25</td>
</tr>
<tr>
<td>CAPH</td>
<td>2 - 3</td>
<td>10 - 15</td>
<td>5 - 7.5</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>12 - 19</td>
<td>60 - 95</td>
<td>37.5</td>
</tr>
</tbody>
</table>

Common Customer Complaints
Figure 2 shows a Pareto of customer complaints. Of those surveyed, 56% cited speed (turnaround time) as their most common complaint. This demonstrates a significant opportunity for improvement. A significant 24% of the customers believed that they did not receive all the information that they requested. The other cited complaints were not nearly as common as the first two; however, they are still important to not overlook. Sometimes the less frequent symptoms, when treated, help to indirectly decrease the more common symptoms. The less frequent complaints included the following: difficulty in checking status of request, submittal information needed is unclear, did not receive any of the information requested, poor copy quality, and cost system is too high.
Figure 2. Pareto Analysis of Customer Complaints

Quicker Turnaround Time

The most significant customer complaint was for quicker turnaround time. Before identifying that turnaround time was truly the problem, we first suspected that the expectation between the customer and Correspondence for turnaround time was not in sync. Correspondence advertises that its turnaround time is about five to ten days. It is not explicitly stated, but it is understood that this statement implies five to ten business days. This turnaround time, in the eyes of Correspondence is measured from the time Correspondence receives the request until the time that the medical information is sent to the customer. In the eyes of the customer, turnaround time was understood as the entire cycle time—from the time the customer sends the request until the time that the customer receives the request. The customers’ understanding of turnaround time includes two buffers for delivery on both ends of the true turnaround time. Naturally, the actual turnaround times that the customers quoted us during the survey will be slightly high due to this differentiation in definition. The actual turnaround time was calculated to be 2.3 weeks (or 11.5
business days). With a valid assumption of even two days in the postal mail system, the actual turnaround time would be 9.5 days, which is within range of Correspondence's standard policy. It appears that 62% of the customers are not even aware of this policy.

![Pie chart showing request types: 5-10 days 38%, not specified 52%]

**Request Types**

The majority of incoming requests were by mail. Faxes and regular mail together make up 94% of all the requests. The remaining 6% of the customers will probably request their
information in person at the reception area. Figure 5 displays this data. We were interested in looking at the average turnaround time according to the manner in which the request was submitted to see if mailed requests generally took longer to fulfill than faxed requests or in-person requests. Figure 6 will be misleading because we are not aware of the manner in which the customer received the request. Simply because a customer submits a request by fax does not necessarily imply that the medical information was faxed in return as well. This information could have been sent through the mail. Figure 6 indicates that mailed requests generally took longer to fulfill than faxed or in-person requests. However, it is expected that the request type has no bearing on the average turnaround time. Again, this inconsistency is due to the fact that the data is based off of the customer's definition of turnaround time, which includes the buffers for mail delivery. Turnaround time in Figure 6 is labeled in business days.

**Figure 6.**

Average Turnaround Time by Request Type

<table>
<thead>
<tr>
<th>Request Type</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>fax</td>
<td>5.91</td>
</tr>
<tr>
<td>mail</td>
<td>5.03</td>
</tr>
<tr>
<td>in person</td>
<td>4.81</td>
</tr>
</tbody>
</table>

**Request Submittals**

It was mentioned in our interviews that not all customers' requests are sent directly to Correspondence as they should. Sometimes, requests are sent to physicians or satellite clinics and then they, in turn, route the request to Correspondence. Figure 7 shows that only 2% of the customers in our sample initially submitted requests through a route other than Correspondence.
In addition, about 5% of the customers expressed that they were unsure of exactly what information Correspondence required in order to process the request.

**Figure 7. Requests Submitted Directly To...**

Internet Access/Interest

Our last two questions in the customer satisfaction survey were not developed until over half-way through our data collection. However, we still posed the question to the remaining 75 of our 200 customers. Figure 8 shows that a significant 76% of the customers expressed that they currently have access to the World Wide Web and 70% of the customers were interested in a web site that allows the customer to check the status of their requests. About 6% of the customers felt that they have experienced difficulty in determining the status of their requests. Providing an alternate means of checking the status of a request would help alleviate some of the follow-up calls that Correspondence is required to handle.

**Figure 8. Results of World Wide Web Survey Question**
Recommendations & Implementation Plan

After completing our data collection and analysis, we finalized a set of recommendations for process improvement and for customer satisfaction improvement. We filtered through this brainstormed list to determine which recommendations would be feasible to implement. Among those considered are as follows: job consolidation, computerized tracking system for psychiatric records, management of customers’ expectations, and improved methods in dealing with customers.

Recommendations for Customer Satisfaction Improvements

1. **Managing Customer’s Expectations**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Customer wants information faster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Proactively manage customer’s expectations</td>
</tr>
</tbody>
</table>
| Implementation | • With receipt of every request, communicate expected turnaround time to customer  
• Modify Release of Information form to include turnaround time  
• Advertise turnaround time on web site  
• Stress turnaround time in voice mail message  
• Volunteer information regarding turnaround time during phone calls |

| Result to MIS | Satisfied Customers, Communicated Expectations |

It was discovered through the telephone survey that 62% of the customers requesting medical information were simply unaware about the expected retrieval and delivery time for the requested information. It is because of this lack of managing the customer’s expectations that customers are frustrated when the record does not arrive when they expect it. Part of this lack of communication is due to the fact that requests are received by mail, so customers do not get an immediate response regarding the length of time it will take for their request to be processed. Without being informed, customers assume that they will receive the record when they want it. Many customers expected to receive their requested information within one to two weeks, from the time that they sent in their request.

Since requests come in through the mail and by fax, there is minimal customer contact. Consequently, the record retrieval time is not communicated unless a customer calls medical records initially or follows up the request with a phone call. In order to rectify this communication breakdown, with every mail or fax request that comes into MIS, the form could be mailed out with a cover sheet that explains the allotted time for record retrieval and the expected date of delivery. If the customers are prepared for the worst, they will only be pleasantly surprised when the information arrives early. This letter will spell everything out in a clear manner that will eliminate any future confusion.
2. **Create World Wide Web Site for Checking Status of Requests**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Difficulty in checking status of requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Create Web site for customers to check the status of their requests</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Link Web site to correspondence tracking system</td>
</tr>
<tr>
<td>Benefits to MIS</td>
<td>Improved customer satisfaction</td>
</tr>
</tbody>
</table>

The only way to track a record request currently is to call the MIS department and ask an employee to investigate the status of a record request. Instead of employees spending their precious time answering progress report calls, a web tracking system could alleviate this problem and improve an employee’s utilization. The web tracking system would be an alternative means to calling to track the status of their request for medical information. Using an assigned confirmation number given to them upon processing of the request. Customers would be able to access information on the following: when the request was received, whether the requested information was sent, and when an invoice was sent. We recognize that some customers may not have access to the Internet; however, this is not a replacement for answering phone calls. This simply provides an extra way for the customer to inquire with the intent of reducing the progress report calls into MIS.

**Recommendations for Process Improvements**

1. **Consolidation of Psychiatric Correspondence Duties**

<table>
<thead>
<tr>
<th>Problem</th>
<th>There is enough volume of psychiatric requests in 9C, CAPH, and Riverview combined to warrant consolidating these duties into one job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Utilize one FTE to handle all of the psychiatric requests</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Hire and train one FTE to handle all of the psychiatric requests</td>
</tr>
<tr>
<td>Benefits of MIS</td>
<td>Better Employee Utilization, Centralized Process</td>
</tr>
</tbody>
</table>

From our discussions with each of the psychiatric unit record retrieval employees, the suggestion of job consolidation became a strong alternative that all contacted employees agreed would be a favorable one. Psychiatric record requests are not any one person’s job. They are added duties. Because the three psychiatric units’ (Child & Adolescent Psych, Adult Psych, Outpatient Psych) process flows are almost identical, one employee who is responsible for all of the psych unit record requests may be a more appropriate use of everyone’s time. This job would entail physically roaming from one unit to the next, taking care of each batch of record requests on a daily basis. This would be a full-time job (40 hours per week) for one FTE.
2. **Implement Computerized Tracking System for Psychiatric Records**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Current tracking system for psychiatric records not centralized and inefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recomendations</td>
<td>Implement computerized tracking system for psychiatric records</td>
</tr>
</tbody>
</table>
| Implementation | • Passive tracking system (sensor)  
• Active tracking system (bar coding) |
| Benefits to MRL | Improved employee utilization, quicker turnaround time, centralized system for tracking sensitive psychiatric information |

Currently there is no computerized tracking system for tracking psychiatric requests. This is due to some confidentiality issues. However, the CORR tracking system used for tracking Correspondence requests does have the capability to track psychiatric requests. Efforts could be improved here to track psychiatric requests to ensure that turnaround times are within Correspondence's expectations.

3. **Implement Computerized Log System for Psychiatric Requests**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Psychiatric correspondence requests are currently not logged on any system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Train FTE to log all psychiatric correspondence requests on Excel spreadsheet</td>
</tr>
<tr>
<td>Implementation</td>
<td>• FTE will log requests on Excel spreadsheet</td>
</tr>
<tr>
<td>Benefits to MRL</td>
<td>Can measure turnaround time, ability to respond quickly to follow-up and rework requests, improved customer satisfaction</td>
</tr>
</tbody>
</table>

Currently there is no computerized tracking system for locating psychiatric records or for tracking psychiatric requests. This is due to some confidentiality issues and because MRL does not have the capability to track volumes. However, if the records had a bar code on the cover they could be scanned without divulging any information contained within the record itself other than its physical location. If a passive system is preferred to an active one, sensors could be used to physically locate psychiatric records.

4. **Use Alternative Methods for Release of Information**

<table>
<thead>
<tr>
<th>Problem</th>
<th>There is enough volume of psychiatric requests in 9C, CAPH, and Riverview combined to warrant consolidating these duties into one job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Utilize one FTE to handle all of the psychiatric requests</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Hire and train one FTE to handle all of the psychiatric requests</td>
</tr>
<tr>
<td>Benefits to MRL</td>
<td>Better Employee Utilization, Centralized Process</td>
</tr>
</tbody>
</table>

The reason that requests can sometimes take three to four weeks to process is typically due to locating the record and/or locating the information that should be within that record—it is
not usually due to its delivery time. However, in an effort for continuous improvement, any effort that can be made to reduce the overall time is important. A way to shorten the delivery time of requested records would be to use alternative distribution methods for sending out the requested information. There are several different options such as faxing (provided there is consent to do so) or scanning the entire record into e-mail and sending it electronically. The latter of the two would only be used if the recipient had access to and used electronic mail; of course, this information could be included on the request form. The point is that there are quicker ways of distributing information than strictly sending it through the mail system.

5. **Streamline Process Flow**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Some requests go to physicians or clinics instead of correspondence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Elimination of non-value added step of transferring requests</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Communicate to upper management that physicians should not accept correspondence requests</td>
</tr>
<tr>
<td>Benefits to MIS</td>
<td>Quicker turnaround time as perceived by the customer, elimination of non-value added activity.</td>
</tr>
</tbody>
</table>

There are parts of the process flow that include extraneous steps that do not add any value to the end-product. An example of this would be when patients call their doctors in need of some medical information and then the doctor has to contact MIS to get request the record. This step is one that can be eliminated to shorten the process duration if doctors inform requesters that requests should be submitted directly to MIS.
not usually due to its delivery time. However, in an effort for continuous improvement, any effort that can be made to reduce the overall time is important. A way to shorten the delivery time of requested records would be to use alternative distribution methods for sending out the requested information. There are several different options such as faxing (provided there is consent to do so) or scanning the entire record into e-mail and sending it electronically. The latter of the two would only be used if the recipient had access to and used electronic mail; of course, this information could be included on the request form. The point is that there are quicker ways of distributing information than strictly sending it through the mail system.

5. **Streamline Process Flow**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Some requests go to physicians or clinics instead of to correspondence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>Elimination of non-value added step of transferring requests</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Communicate to upper management that physicians should not accept correspondence requests</td>
</tr>
<tr>
<td>Benefits to MIS</td>
<td>Quicker turnaround time as perceived by the customer, elimination of non-value added activity.</td>
</tr>
</tbody>
</table>

There are parts of the process flow that include extraneous steps that do not add any value to the end-product. An example of this would be when patients call their doctors in need of some medical information and then the doctor has to contact MIS to get request the record. This step is one that can be eliminated to shorten the process duration if doctors inform requesters that requests should be submitted directly to MIS.
Flowcharts
Riverview

get mail/fax requests from Corr

Locate Record

Notify Green Rd or Whitmore Lake (if not onsite)

Green Rd sends record to Riv.
   OR
   Record found onsite

Riv. identifies info to be copied

Riv. sends info to Corr.'s copying service

Copying Service sends record back to Green Rd, copies given to Corr

Corr. mails info to customer
9C

get mail/fax requests from Corr

find records by Reg# in PTMG (locate record)

Notify Green Rd (if not onsite)

Green Rd sends record to 9C
OR
Record found onsite

9C clips info to be copied

9C sends info to Corr.'s copying service

Copying Service sends record back to Green Rd, copies given to Corr

Corr. mails info to customer
get mail/fax requests from Corr

Locate Record

Notify Green Rd or Whitmore Lake (if not onsite)

Green Rd sends record to CAPH
OR
Record found onsite

CAPH identifies info to be copied

CAPH sends info to Corr.'s copying service

Copying Service sends record back to Green Rd, copies given to Corr

Corr. mails info to customer
Correspondence

Locate Record

Notify Green Rd (if not onsite)

Green Rd sends record to Corr
OR
Record found onsite

Corr identifies info to be copied

Send info to Corr.'s copying service

Copying Service sends record back to Green Rd, copies given to Corr

Corr. mails info to customer
START

HCC Rep. copies medical records

HCC makes two copies of the Request/Auth

HCC attaches the first copy of the request/auth to the copied information

HCC records the page count on the 2nd copy

Is this an on-the-spot request?

NO

HCC Rep. paper clips the 2nd copy of the request to the copied information

YES

HCC Rep. paper clips the 2nd copy of the request and places it in his/her individual folder

HCC log-out biller obtains each HCC Rep's daily work.
- Folder with all on-the-spot request/auths.
- All copied information, excluding the on-the-spot responses

HCC log-out biller logs out all on-the-spot requests/auth from the folder, then the copied information with request/auth attached are logged out. Note: each copy Rep's work is logged out separately.

Logged out requests/auth are mailed according to established procedures

END
Raw Data
| Question                                                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
|-------------------------------------------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Do you feel that the service provided by the company is satisfactory?  | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| Were you satisfied with the resolution of your issue?                   | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| Was the company's support helpful in resolving your issue?             | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| Did the company ensure your satisfaction with the service?             | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| Did the company's support meet your expectations?                      | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| Did the company's support exceed your expectations?                    | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |

**Questionnaire**

1. Do you feel that the service provided by the company is satisfactory?
2. Were you satisfied with the resolution of your issue?
3. Was the company's support helpful in resolving your issue?
4. Did the company ensure your satisfaction with the service?
5. Did the company's support meet your expectations?
6. Did the company's support exceed your expectations?
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>181</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>182</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>183</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>184</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>186</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>187</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>188</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>189</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>190</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>191</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>192</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>193</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>194</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>195</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>196</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>198</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>199</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**COUNT:** 28 27 57 31 55 4 58 11 133 168 4 79 132 18 33 60 84 17 7 3 31 121 10 52 14 4 5 12 79 73

**PERCENT (%)**
- Total: 100%
- 13% 14% 28% 19% 28% 2% 28% 6% 8% 8% 3% 5% 20% 32% 8% 5% 3% 3% 2% 4% 2% 1% 2% 0% 1% 1%
Obtain Medical Records
Consent to Release Patient Information Form
UNIVERSITY OF MICHIGAN HOSPITALS
CONSENT TO RELEASE PATIENT INFORMATION

Patient's Name _____________________________

Patient's Address ___________________________

City, State, Zip Code ___________________________

Patient's Date of Birth ________________________

Patient's U of M Hospitals Registration Number ________

RELEASE OF U OF M HOSPITALS INFORMATION
☐ I authorize University of Michigan Hospitals or any University Medical Service Plan to release copies of my records as listed below. The information should be sent to:

Name of Physician, Institution, Clinic, etc. ___________________________

Address ___________________________

City, State, Zip Code ___________________________

IF REQUESTING U OF M HOSPITALS INFORMATION, RETURN THIS FORM TO:
Medical Correspondence and Vital Statistics
University of Michigan Hospitals
1500 East Medical Center Drive
Ann Arbor, Michigan 48109-0306

FOR MEDICAL CORRESPONDENCE USE ONLY

INFORMATION TO BE RELEASED:

☐ MEDICAL/SURGICAL  ☐ ALCOHOL/SUBSTANCE ABUSE  ☐ PSYCHIATRIC

☐ Outpatient Reports From __________ to __________

☐ Inpatient Summaries From __________ to __________

☐ X-ray Reports From __________ to __________

☐ Laboratory Tests From __________ to __________

☐ Itemized Billing Statements From __________ to __________

☐ Information regarding: ___________________________

☐ Other (Describe record(s) required and give approximate date(s) of service): ___________________________

REASON FOR DISCLOSURE:

☐ Employer Request  ☐ Vocational Rehabilitation

☐ School Requirement  ☐ Home Care

☐ Attorney inquiry  ☐ Guarantor

☐ Social Security  ☐ Workers' Compensation

☐ Continuation of Care  ☐ Disability Certification

☐ Consultation  ☐ Insurance Claim

☐ Social Service  ☐ Insurance Application

☐ Other: (specify) ___________________________

REVOCATION CLAUSE AND SIGNATURE

This consent form remains in effect for a period of six months or until _______.
I understand that I may revoke my authorization by writing to University of Michigan Hospitals (Medical Correspondence Unit, B1220, Box 0306, Taubman Health Center, 1500 E. Medical Center Dr., Ann Arbor, Michigan 48109-0306).

SIGNATURE ___________________________

(patient, parent, legal representative)  DATE ____________

Relationship ___________________________

Witness ___________________________

Date ____________

To Signature Only

IMPORTANT: ALL SECTIONS ABOVE MUST BE COMPLETED.