

CASE STUDY 10.1: *Middle County Hospital*

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Katie Bent, CEO of Middle County Hospital (MCH), had invited you to her Monday morning meeting with her management staff. You assumed that the invitation was just to introduce you as the new management intern at the hospital. This she did at the beginning of the meeting. "Please welcome <your name> to our staff. <Your name> recently graduated from State University with a BBA degree and will be working for me for the next several months on a variety of projects. Please make <your name> feel welcome." Turning to you, she said "Usually the junior member of the staff makes the coffee. Since you didn't know about this, I came in early and made a fresh pot." Everyone laughed as she finished by saying, "You owe me one."

Katie then proceeded with the meeting. "This weekend I met with the Hospital Board. They asked that I make a presentation at their next meeting on the status of our program of continuous quality improvement (CQI). They are well aware of how important this program is to the operations of the hospital as well as to our continued accreditation by JCAHO." You noticed Nathan Walker, director of quality, shift uneasily in his seat.

Katie continued, "Look upon this as an opportunity to show the Board we're serious about CQI and to enlist their support for the program. Let's be sure we do this right".

"Nathan, I'm assigning <your Name>, our new management intern, to assist you in upgrading the proposal. <your name> has studied quality management at State University and can provide you with some extra technical horsepower. You have until <deadline> to complete the report upon which I will base my presentation. Make every minute count."

The meeting adjourned after about another hour. Nathan invited you to join him for a cup of coffee. "Frankly, I'm still learning the technical aspects of quality. I've joined the American Society for Quality and I'm beginning to study for my certification exam, but I'm fairly new to all of this. I think we have made some great progress—the CQI program is the best thing that has happened to MCH in a long time. Did you study quality when you were a student at State University?"

You paused for a minute, frantically trying to remember where you stored your quality management text—the one your professor said you should hang onto. "Sure. I took quality management as part of my study of operations management. That material is still pretty fresh in my mind and I have been considering preparing for the ASQ Certified Quality Improvement Associate examination," you said. While you weren't as confident as you sounded, you were sure you could re-read the quality management text and it would all come back to you.

"That's great!" said Nathan. "I've been collecting a lot of data, but haven't had time to do anything with it on a systematic basis. Follow me to my office and let me give you a couple of sets of data (in Appendices) and see what you can do with them." Off you both went to Nathan's office.

"One CQI project we implemented at the beginning of last month involves reducing the number of redos in our imaging area. The imaging area does X-ray, MRI, CT scans, ultrasounds, and the like. A redo means that the first image was found to be unsatisfactory by the attending physician who then orders a redo of the image. That creates dissatisfaction in the patient and adds cost both for the hospital and for the patient. Redos could also result in delays in necessary treatment for the patient. Because of its importance, we implemented a new set of procedures at Day 31 on the data table (Appendix 1). Days 1-30 are with the old procedure; Days 31-60 are with the new procedure. I take a random sample of 50 imaging procedures each day and calculate the number of redos. I warn Imaging when they have a bad day and compliment them when they have a good day. I'm not sure how effective this is. I have reported improvement with the new procedure but don't have a way to really show the level of the improvement. Could you develop a good way to show the improvement?"

"Certainly," you say with more confidence than you actually feel as you grow more concerned with locating your old quality management text.

"There is another area in which we are planning a CQI project," Nathan continues. "We use comment cards filled out by our patients to determine their satisfaction with the quality of our food service. Of course, we understand that patients on bland diets won't rate the Jell-O™ and soup that they receive as being as good as the chicken fried steak they really would like to have. That alone results in reduced patient satisfaction and more complaints about food service and is largely unavoidable. We would like to determine some ways of dealing with this factor as well as identifying one or more project objectives to initiate to improve patient satisfaction with our food service. I have put together a summary of our food service process (Appendix 2) and a summary of the comments received from patients about food service (Appendix 3). See what you can do with this."

"I think two projects are enough to show how we are doing with the CQI program. I'm really happy that Katie assigned you to help us out with this. The CQI program is really important. I want to be sure that we have a high quality written report for her to present to the Board. I'm counting on you to analyze the redo data and present it with your conclusions in Part 1 of your report. Then in Part 2 present your analysis of the food service comment card data and propose a project to make the biggest improvement possible in this area. Can you have the work breakdown structure and Gantt chart for this project to me by <deadline>?" You respond that you can meet that deadline. "Great! I'm counting on you," you said.

With that, you retired to your office, found your quality management text (thankfully), refreshed your cup of coffee, and started reading. The more you read, the more that you remembered from class and the greater your confidence became in your ability to do a good job for Nathan. Also, you thought, a top quality report should repay Katie for making the coffee this morning.

APPENDIX 1: IMAGING REDO DATA FOR LAST TWO MONTHS

Number of			Number of		
Day	Redos	Comments	Day	Redos	Comments
1	7	Warned Imaging	31	5	
2	5		32	3	
3	6		33	4	
4	5		34	3	
5	5		35	3	
6	3		36	2	Complimented Imaging
7	7	Warned Imaging	37	1	Complimented Imaging
8	4		38	4	
9	8	Warned Imaging	39	3	
10	2	Complimented Imaging	40	5	
11	3		41	2	Complimented Imaging
12	2	Complimented Imaging	42	0	Complimented Imaging
13	4		43	2	Complimented Imaging
14	6		44	1	Complimented Imaging
15	4		45	3	
16	7	Warned Imaging	46	2	Complimented Imaging
17	3		47	4	
18	7	Warned Imaging	48	6	
19	6		49	2	Complimented Imaging
20	6		50	3	
21	7	Warned Imaging	51	4	
22	5		52	2	Complimented Imaging
23	8	Warned Imaging	53	2	Complimented Imaging
24	4		54	0	Complimented Imaging
25	5		55	1	Complimented Imaging
26	3		56	3	
27	6		57	2	Complimented Imaging
28	7	Warned Imaging	58	2	Complimented Imaging
29	4		59	3	
30	5	New System Introduced Here	60	2	Complimented Imaging

Sample size = 50

APPENDIX 2: FOOD SERVICE WORK FLOW

Obtain list of patients and room numbers to be fed for each meal.
 Check physician's directives for each patient's diet.
 Prepare standard menus for each category of dietary directive for each meal.
 Prepare food in kitchen.
 Prepare individual trays with patient name and room number.
 Place comment card on each tray.
 Place food on tray.
 Cover food to preserve temperature.
 Deliver to room within 30 minutes of plating (goal).
 Allow 1 hour for meal.
 Pick up trays from patient rooms within 1 hour to 1.5 hours of delivery.
 Separate comment cards from trays.
 Return dirty trays to dishwashing area.
 Return comment cards to head dietician.
 Head dietician reviews comment cards and takes immediate action where appropriate.
 Comment cards delivered to director of quality.

APPENDIX 3: SUMMARY OF MEAL COMMENTS LAST 30 DAYS

Day	Wrong Temp.	No Choice	Tastes Bad	Late Delivery	Late Pickup	Other
1	1	5	6	2	0	2
2	2	5	8	3	1	0
3	2	7	9	2	2	3
4	0	6	9	0	1	1
5	3	5	7	4	1	2
6	1	6	9	1	2	0
7	0	3	7	1	1	1
8	1	6	9	2	3	3
9	1	4	7	1	1	1
10	1	5	8	0	0	0

(continued)

APPENDIX 3: (continued)

Day	Wrong Temp.	No Choice	Tastes Bad	Late Delivery	Late Pickup	Other
11	3	7	10	2	1	1
12	0	5	7	1	1	0
13	1	3	6	1	0	0
14	3	4	7	3	0	1
15	3	5	7	4	1	2
16	1	6	9	1	2	0
17	0	3	7	1	1	1
18	1	6	9	2	3	3
19	1	4	7	1	1	1
20	1	5	8	0	0	0
21	3	7	10	2	1	1
22	0	5	7	1	1	0
23	2	5	8	3	1	0
24	2	7	9	2	2	3
25	0	6	9	0	1	1
26	3	5	7	4	1	2
27	1	6	9	1	2	0
28	0	3	7	1	1	1
29	1	6	9	1	2	0
30	0	3	7	1	1	1

CASE STUDY 10.2: *Precise Molded Products, Inc.*

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You were just finishing an important report when, as you turned from your computer to your desk, you accidentally knocked over your half-full cup of coffee. As you raced to mop it up before your papers were ruined, Bob Thomas walked into your office. "Did I catch you at a bad time?" he asked.

"No, Bob," you lied. "I'm just feeling a little stupid that I knocked over my coffee cup. I just finished a report about how everyone needs to be more careful to avoid accidents, and then I create a small accident myself while putting the report on my desk." Smiling, Bob says "Well, I guess you didn't learn everything at State University. I thought they would have a class on avoiding spills." You both laugh.