Applying Quality Management in Healthcare:

A Systems Approach, 5th ed.

END-OF-CHAPTER EXERCISES

Chapter 1

Exercise 1.1
Objective: To identify opportunities for improving the current state of healthcare quality in the United States.

Instructions:
- Go to the AHRQ website (https://nhqrnet.ahrq.gov/inhqrdr) and find the most current version of the National Healthcare Quality and Disparities report.
- Read the Executive Summary.
- Browse the rest of the report.
- From your brief review of this report, summarize in one or two paragraphs the state of healthcare quality and disparities in the United States.
- Choose two specific elements of healthcare needing improvement and explain why you selected these elements.

Chapter 2

Exercise 2.1
Objective: To become familiar with the current CMS quality initiatives and how they support the National Quality Strategy and organizational performance improvement.

Instructions:
- Based on your work setting or an area of interest, select and explore one of the CMS quality initiatives (e.g., doctors, hospitals, and other providers) found at www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo, and review the current National Quality Strategy report (www.ahrq.gov/workingforquality).
- In two or three paragraphs, answer the following questions in reference to the quality initiative you selected:
  a. What does the CMS quality initiative include? Describe the initiative and its relationship to the National Quality Strategy.
  b. How can the data publicly available on the compare site for the quality initiative benefit the organization? Describe how the measurement data can be used in the setting you are interested in to improve performance.

Exercise 2.2
Objective: To become familiar with the current quality measurement initiatives of The Joint Commission.

Instructions: Explore the current ORYX performance measures of The Joint Commission (www.jointcommission.org/measurement/measures/). For each measure, describe which system or systems in your chosen setting will be improved by the use of the measure.

Chapter 3

Exercise 3.1
Objective: To practice identifying dynamic complexity.

Instructions: Describe how the following example illustrates one or more of the system characteristics that contribute to dynamic complexity.

Example: Medical Associates is a for-profit medical group of 40 physicians that operates two facilities and offers services in several medical specialties, including cardiology; ear, nose, and throat; family medicine; gastroenterology; general surgery; pediatrics; and obstetrics and gynecology. Medical Associates is open six days a week in each location from 8:00 a.m. until 6:00 p.m. Plans are being developed to extend its hours to 9:00 p.m. two days a week. For several years, Medical Associates discounted its listed fees by 3 percent to 5 percent for its managed care contracts, but a few years ago, it had to accept larger discounts to remain in the networks of health plans. Because of lower reimbursements (Seidel and Lewis 2017, 217),

> Medical Associates began to change its staffing by hiring medical assistants (MAs) instead of relying solely on registered nurses (RNs). Currently, all physicians in primary care service are assigned one RN or MA to assist with patient care, and every two physicians in surgery are assigned one RN. RNs who retire or resign have been replaced with MAs. On five recent occasions, when an RN assigned to a senior staff physician left, the senior physician demanded that the RN be replaced by another RN already assigned to a junior staff physician (a nonshareholder) and that a new MA be hired for that physician. This ad hoc practice of job switching has caused internal turmoil between the senior and junior physicians and has led to the subsequent resignation of two RNs who did not want to be reassigned. . . . Confusion exists around whom staff should report to and who has the authority to change job assignments.

Exercise 3.2
Objective: To practice identifying activities that represent essential elements in the Baldrige Performance Excellence Program (BPEP) framework.

Instructions: Think about your healthcare services work area or area of interest. Identify two activities a manager in this area does to advance organizational excellence in each of the following Baldrige framework categories:

- Strategy
- Customers
- Workforce
- Operations

Examples of what healthcare recipients of the Baldrige National Quality Award have done in these areas can be found online at www.nist.gov/baldrige/award-recipients.

Chapter 4

Exercise 4.1
Objective: To explore "below the waterline" factors that can impede quality improvements in healthcare organizations. Managers must recognize whether these factors exist in their work setting and determine how best to overcome these barriers when initiating operational improvements.

Instructions: Read the following article:

Berwick, D. 2003. "Improvement, Trust, and the Healthcare Workforce." Quality & Safety in Health Care 12 (supplement 1): i2–i6. www.ncbi.nlm.nih.gov/pmc/articles/PMC1765768/pdf/.

In this article, Dr. Berwick describes several historical and present-day "below the waterline" factors that inhibit healthcare quality improvement. For example, he observes that improvement is limited when the workforce is not encouraged to actively participate in reinventing the system.

- Identify three factors described by Dr. Berwick that are the most difficult for healthcare organizations to overcome and explain why.
- For the three factors you select, describe actions that managers can take to eliminate or minimize the factor so it no longer inhibits operations improvement.

Chapter 5

Exercise 5.1
Objective: To identify practice characteristics that support collective mindfulness.

Instructions: Watch the video "Inpatient Medical: Successful Outcome Using TeamSTEPPS Techniques" found at www.ahrq.gov/teamstepps/instructor/videos/ts_vig002b/vig002b.html.

Identify the practice characteristics exhibited by people in the scenario that contributed to collective mindfulness (exhibit 5.1). Be specific: describe when and how the practice characteristic was exhibited and who exhibited it.

Exercise 5.2
Objective: To apply equitable results for individuals involved in an adverse event.

Instructions: Read the following four case studies. Determine the appropriate results for the individual who made the mistake.

Case 1: Transport Staff Member Mistakenly Tries to Restrain Patient
A patient transport staff member is passing the psychiatric unit and notices a nurse struggling with a confused and argumentative patient who was trying to leave the unit. The transporter tries to restrain the patient, but he seizes the patient roughly and fractures several of the patient's ribs. The transporter realized he had breached procedures as the nurse had not asked for assistance and nobody appeared to be in immediate physical danger; he also had no training in handling combative patients. He admits to his supervisor that he had simply decided to "pitch in" and help.

Case 2: Housekeeper Mistakenly Overlooks Posting a Wet-Floor Sign
A housekeeper is waxing the floors near the hospital cafeteria at 1 a.m. He cannot find a wet-floor sign and would have had to go back to the office to find one. He believes there will not be any foot traffic in the area at this time of night, so he does not go to the trouble of finding a sign. He leaves to take his mid-shift break while the floor dries. A young patient who could not sleep walks with his mother near the vending machine and slips on the wet floor, breaking his wrist. The housekeeping staff often have to search for wet-floor signs, which causes them to get behind in their work. Although the manager is aware of this problem, no additional signs have yet to be purchased.

Case 3: Nurse Mistakenly Omits Double-Check
A nurse is getting ready to administer a high dose of insulin. Consistent with hospital policy, she looks for another nurse to review her calculation and the amount in the syringe vial, prior to administration. She is unable to find another nurse and fails to perform the double-check step. The patient receives an overdose of insulin, which results in complications requiring transfer to the ICU.

Case 4: Therapist Mistakenly Ignores Alarm Bell
A confused patient in a geriatric care unit wanders down the hall and goes out the fire door. The alarm bell sounds but the physical therapist walking down the hall just ignores it, thinking that it's just another false alarm. The patient is later found outside lying on the ground after falling and breaking a hip.

Chapter 6

Exercise 6.1
Objectives:

- To practice identifying management behaviors that demonstrate collaborative teamwork and continuous improvement.
- To explore how collaborative teamwork and continuous improvement influence the patient experience.

Instructions:
- Read the case study, which is drawn from *The New Pioneers: The Men and Women Who Are Transforming the Workplace and Marketplace* (1999) by former Wall Street Journal columnist Thomas Petzinger Jr.

- Describe several examples of how management demonstrated the principle of continuous improvement in the case study.
- Describe several examples of how management demonstrated the principle of teamwork in the case study.
- Describe how your responses to the two previous instructions contributed to the quality of the patient's experience (service quality) and the quality of the clinical service (content quality).

Case Study: The following section is reprinted with slight changes with the permission of Simon & Schuster Adult Publishing Group from *The New Pioneers: The Men and Women Who Are Transforming the Workplace and Marketplace* by Thomas Petzinger Jr. Copyright © 1999 by Thomas Petzinger Jr.

While many companies are getting better at customer service, one industry has gotten a lot worse lately. That industry is medicine. The onslaught of managed care has commoditized what was once the most delicate relationship in all of commerce, that of doctor and patient. Accounting for the payment of services has overwhelmed the rendering of the services themselves. Yet a few islands of people have thrown off their Newtonian blinders and recognized that putting the customer first can redound to the benefit of the provider as well. With so many competing claims on every dollar, every process, and every hour of time and attention, the interests of the customer—the patient—serve as a common ground for making the entire system more efficient.

One hospital is such a place: a 520-bed teaching hospital and so-called trauma-one center with a stellar clinical reputation. Within the hospital, an outpatient surgery clinic was opened long ago, in which an ever-larger percentage of procedures were being conducted. And although the surgical staff was acclaimed, management recognized that the overall patient experience left something to be desired.

The main problem was delay. The surgery line was jam-packed as early as 5:30 every morning. Some patients spent the entire day lurching from check-in to pre-op to anesthesia to surgery to recovery to post-op, with too much of the time spent simply waiting. As much as some people may wish to convalesce at length as admitted hospital patients, no one wants to turn a four-hour outpatient experience into a nine-hour ordeal. If the hospital wanted to maintain (much less extend) its position in the marketplace, it had to figure out how to get patients through faster without degrading clinical results.

The job of facilitating the planning process went to an internal quality consultant who had worked for 15 years as a registered nurse, mostly in neonatal intensive care, before earning her MBA and fulfilling this new organizational role. In her years in intensive care, she was often perplexed by the priorities that families exhibited in the most dire medical situations. "I'm working like crazy to save a baby, but the parents get upset because the grandparents didn't get to see the baby!" she recalls. In time she could see that medicine was only part of healthcare. "Healthcare providers hold people's lives in their hands at a very vulnerable time," she says. "Healthcare is about a personal encounter." Most of the people on the business side of healthcare have little intellectual grasp and less emotional grasp of this concept. Indeed, after moving to the business side herself, she became convinced that some of the most intractable problems of the industry could be solved only by people who, like her, combined far-flung disciplines.

"Innovation will come from people who have crossed the boundaries from other disciplines," she says—from business to medicine, from medicine to law, and so on.

The facilitator insisted on involving the maximum number of nurses— people who knew the whole patient as well as the individual surgeries they variously received. The new administrator over the area requested that the members of the improvement committee visit as many other hospitals as possible within their large hospital system to explore which outpatient surgical practices could be employed at their own site. And throughout the study process, the administrator continually harped on the "vision statement" of the initiative, which put as its first priority "to provide a patient/family focused quality culture."

This new administrator in the surgery service, a nurse herself, was a powerful force in leading the improvement effort. Under the previous leadership, the policy for change was simply "give the surgeons whatever they want," as she put it. The administrator acknowledged that the surgeon must call the shots on procedures—but not necessarily on process. In that respect she, too, insisted on using the patient as the point of departure. "If you're guided by only one phrase—what is best for the patient—you will always come up with the right answer," the administrator insists. (Hearing the administrator and facilitator say this over and over began to remind me of the best editors I have worked for. When in doubt, they would often say, do only what's right for the reader. Everything else will fall into place.)

Studying the surgery line from the patients' point of view was disturbingly illuminating. Surgeons showing up late for the first round of surgeries at 7:30 a.m. threw off the schedule for the entire day. The various hospital departments—admitting, financing, lab, surgery—all conducted their own separate interaction with the patient on each of their individual schedules. A poor physical layout, including a long corridor separating the operating rooms from pre-op, compounded the inefficiencies. Once a patient was called to surgery, he spent 40 minutes waiting for an orderly to arrive with a wheelchair or gurney. And, because this was an outpatient surgery center located inside a hospital, the anesthesiologists were accustomed to administering heavy sedation, often slowing the patient's recovery from otherwise minor surgery and further clogging the entire line. The operation was a success, but the patient was pissed.

In talking to patients, the researchers discovered a subtext in the complaints about delays: resentment over the loss of personal control. Patients spent the day in God-awful gauze gowns, stripped of their underwear, their backsides exposed to the world. Partly this reflected a medical culture that considered the procedure, not the patient, as the customer. As the administrator put it to me, "If you're naked on a stretcher on your back, you're pretty subservient." Family members, meanwhile, had to roam the hospital in search of change so they could coax a cup of coffee from a vending machine. She marveled at the arrogance of it. "You're spending $3,000 on a loved one, but you'd better bring correct change."

Fortunately, this administrator had the political standing to push through big changes, and although the staff surgeons effectively had veto power, most were too busy to get deeply involved in the improvement process. Because few patients enjoy getting stuck with needles, the nurses created a process for capturing the blood from the insertion of each patient's intravenous needle and sending it to the lab for whatever tests were necessary. This cut down not only on

discomfort, but on time, money, and scheduling complexity. The unremitting bureaucratic questions and paperwork were all replaced with a single registration packet that patients picked up in their doctors' offices and completed days before ever setting foot in the hospital; last-minute administrative details were attended to in a single phone call the day before surgery. The nurses set up a check-in system for the coats and valuables of patients and family members, which eliminated the need for every family to encamp with their belongings in a pre-op room for the entire day. A family-friendly waiting area was created, stocked with free snacks and drinks. There would be no more desperate searches for correct change. That was only the beginning. Patients had always resented having to purchase their post-op medications from the hospital pharmacy; simply freeing them to use their neighborhood drugstore got them out of the surgery line sooner, further relieving the congestion. Also in the interest of saving time, the nurses made a heretical proposal to allow healthy outpatients to walk into surgery under their own power, accompanied by their family members, rather than waiting 40 minutes for a wheelchair or gurney. That idea got the attention of the surgeons, who after years of paying ghastly malpractice premiums vowed that the administrator, not they, would suffer the personal liability on that one. The risk-management department went "eek" at the idea. Yet as the improvement committee pointed out, the hospital permitted outpatients to traverse any other distance in the building by foot. Why should the march into surgery be any different?

In a similar vein, the nurses suggested allowing patients to wear underwear beneath their hospital gowns. The administrators could scarcely believe their ears: "Show me one place in the literature where patients wear underwear to surgery!" one top administrator demanded. (The nurses noted that restricting change to what had been attempted elsewhere would automatically eliminate the possibility of any breakthrough in performance.) And why stop at underwear, the nurses asked. The hospital was conducting more and more outpatient cataract operations; why not let these patients wear their clothes into surgery? "Contamination!" the purists cried. But clothing is no dirtier than the skin beneath it, the nurses answered. This change eliminated a major post-op bottleneck caused by elderly patients who could not dress themselves or tie their shoes with their heads clouded by anesthesia and their depth perception altered by the removal of their cataracts.

As the changes took effect, the nurses observed another unintended effect. Patients were actually reducing their recovery times! People were no longer looking at ceiling tiles on their way into surgery like characters in an episode of *Dr. Kildare*. They went into surgery feeling better and came out of it feeling better. In case after case they were ready to leave the joint faster; this in turn freed up more space for other patients. Because they had studied practices at a number of stand-alone clinics, the nurses even suggested to the physicians that the outpatients would be better off with less anesthesia, hastening their recoveries, speeding their exit, and freeing up still more capacity.

Within a year, the volume at the outpatient surgery unit had surged 50 percent with no increase in square footage and no increase in staff. Customer-service surveys were positive and costs were under control. And it dawned on the facilitator that the nurses' intuitive conviction that the patient should come first benefited the surgery line itself at every single step. Everyone and everything connected to the process—surgeon, staff, insurers, time, cost, and quality—seemed to come out ahead when the patients' interests came first.

What was really happening, of course, was that the change teams simply put common sense first. In a complex process of many players, the interest of the patient was the one unifying characteristic—the best baseline for calibration— because the patient was the only person touched by every step.

Chapter 7

Exercise 7.1
Objective: To think about and clarify professional purpose.

Instructions:

- Write your own professional purpose or mission.
- Practice the purpose principle by writing your responses to the following questions as they relate to your professional purpose:
  a. What am I trying to accomplish?
  b. What is the process(es) or activity(ies) involved in the response to a? (Be sure to use an active, not directional, verb.)
  c. What is the purpose of the response to b?
  d. What is the purpose of the response to c?
  e. What is the purpose of the response to d?
  f. What is my purpose according to my patients, clients, or customers?
  g. What larger purpose may eliminate the need to achieve this smaller purpose altogether?
  h. What is the right purpose for me to be working on? Describe how this purpose differs or does not differ from my original purpose.

Chapter 8

Exercise 8.1
Objective: To practice linking goal statements with results.

Scenario: The quality committee at a hospital reviewed its performance measurement data for acute myocardial infarction (AMI), congestive heart failure (CHF), and pneumonia on the Medicare Hospital Compare website (www.medicare.gov/hospitalcompare). The hospital's performance scores for pneumonia and CHF were very similar to the scores attained by hospitals in the state and throughout the nation. The hospital's performance on the AMI measures was not as favorable. The results suggest that the hospital approached performance improvements in a fragmented, disease-specific manner.

Instructions: Consider how organizational goals may have contributed to some improvements in care provided to patients with CHF and pneumonia while improvements in care for patients with AMI lagged. The measures for each of these conditions can be found on the Medicare website (www.medicare.gov). On the following goals worksheet, you will find examples of goal statements the hospital could have established that would have led to the results described. Critique each goal statement and document your critique on a worksheet such as the one shown

here. Remember, you are critiquing the goal statement, not the merit of the intervention represented by the goal statement.

Goals Worksheet

Goal Statement	Pros	Cons
Improve performance in all the CMS disease-specific indicators.		
Ensure all patients admitted to the ED with the diagnosis of AMI receive aspirin within ___ minutes of admission.		
Improve performance on the following AMI indicators: • Timeliness of administration of aspirin • Prescribing aspirin at discharge • Smoking cessation counseling		
Research the available clinical guidelines on care of the patients with AMI, and implement a guideline that • demonstrates a strong degree of evidence; • ensures meeting all regulatory and payer requirements; and • permits ease of documenting, retrieving, and reporting the necessary performance indicators.		
Reduce the number of patients with AMI who are discharged without smoking cessation counseling and a prescription for aspirin.		

Chapter 9

Exercise 9.1
Objective: To familiarize yourself with the measurement resources available in the CMS Measure Inventory Tool.

Instructions: Select a healthcare service setting that you are familiar with or would like to become more familiar with. Using the search function on the CMS Measures Inventory Tool (https://cmit.cms.gov/CMIT_public/ListMeasures), identify measures that could be used in your chosen setting to evaluate performance in each of these quality domains: safe care, effective care, patient-centered care, timely care, efficient care, and equitable care. Identify at least one measure for each quality domain.
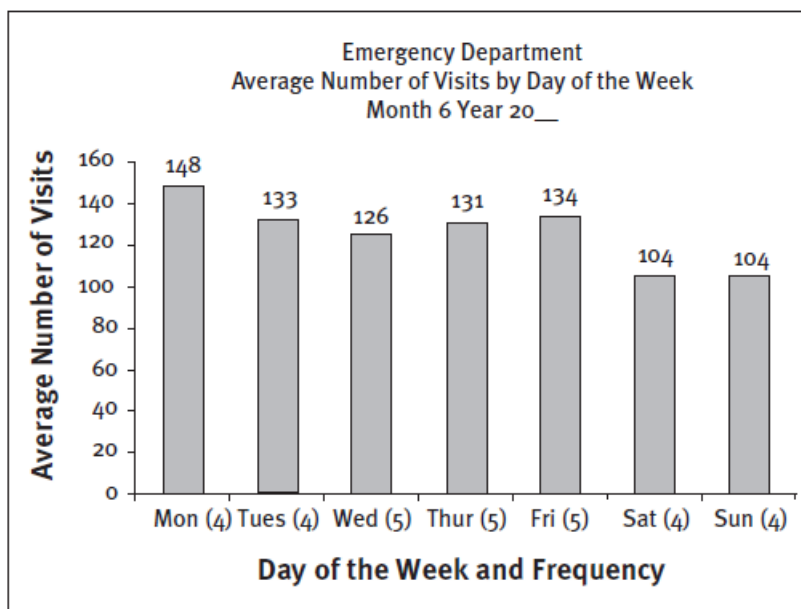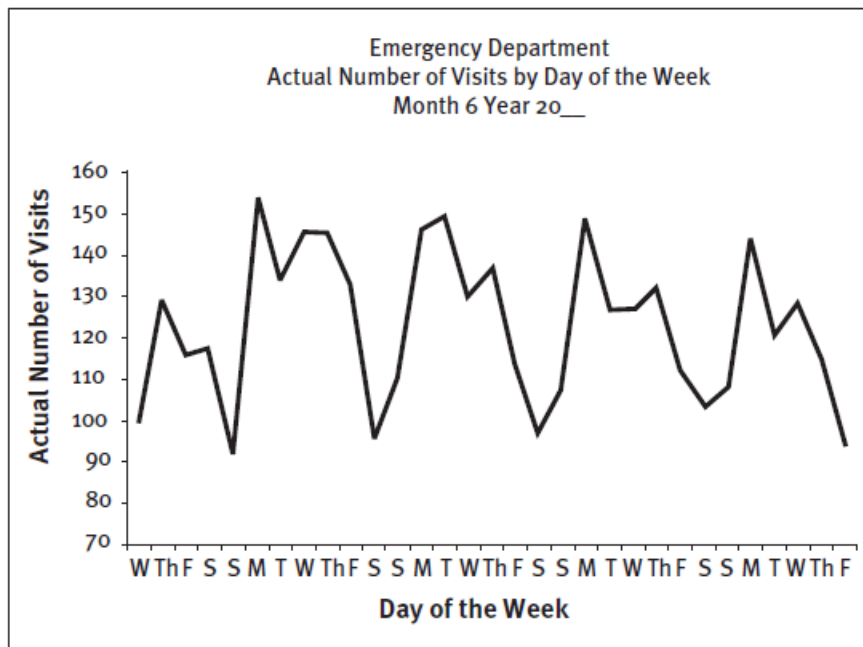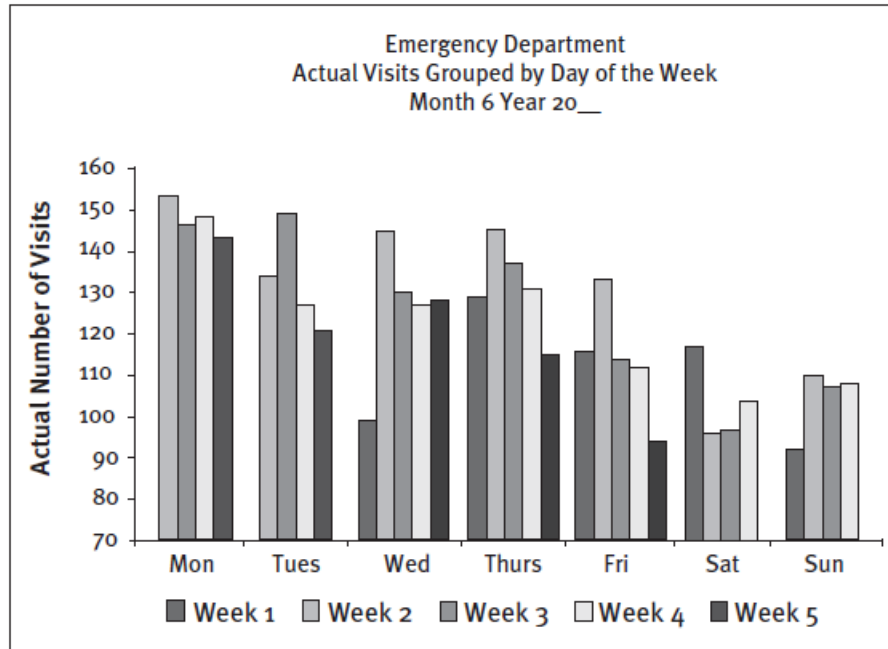
Chapter 10

Exercise 10.1
Background: This exercise further explores the principle about data and complex systems discussed in this chapter: "Graphs reveal interesting structures present in the data" (Wheeler 2000, 14, 79).

Objective: To evaluate graphic presentations of data and select the one that provides the most valuable feedback about the system's behavior.

Instructions: As the manager of an ED, you are faced with the challenge of improving flow and better matching your staffing plan to patient demand.
Like the mammography center manager in this chapter, your monthly reports from the finance department present the ED's volume statistics in a spreadsheet according to this month, last month, year to date, and the same month in the previous year. You decide to graph the data. You experiment and come up with the following three graphs using the same information. Select the graph that provides you with the most insight and explain why you chose that graph.

Emergency Department
Actual Visits Grouped by Day of the Week
Month 6 Year 20___

Emergency Department
Actual Number of Visits by Day of the Week
Month 6 Year 20___

Exercise 10.2

Background: This exercise helps readers learn to identify specific types of data and choose the appropriate graphical techniques and numerical summary measures—critical components of making analytics-driven recommendations.

Objectives: The following dataset represents a small portion of a larger report about patients who visited an urgent care clinic on one day. Identify the type of data found in each column, and identify the numerical summary measures and graphical methods you would use to summarize the data in each column.

ID	Age (Years)	Gender (M/F)	Opinion	Visit Time (Min.)	Charges ($)	Payment Type	Prior Visits	Admission Blood Pressure Systolic	Diastolic
1	33.5	M	5	64.2	158.00	Self-Pay	4	136	71
2	21.2	F	2	69.4	159.00	Medicaid	3	112	65
3	56.4	F	1	81.1	178.00	Medicaid	0	156	88
4	53.9	M	3	31.6	124.00	Blue Cross	1	125	80
5	51.2	F	5	48.5	146.00	Aetna	8	133	62

Instructions: You have been recently hired as the quality manager for an urgent care clinic and will spend the next two weeks reviewing all the patient records in this dataset. The information includes the identification number assigned to each patient, followed by patient age and gender. After this visit, the patients were mailed a survey to gather satisfaction scores. The results are represented in the opinion column. A score of 1 is very poor, 2 is poor, 3 is neutral, 4 is good, and 5 is very good. The clinic administrator has supplied the total time each patient spent in the clinic for this visit and the number of prior visits to the clinic for each patient. The billing department has provided the payment type and the charges billed for the visit in the charges column. The patient's admission blood pressure data come from his or her EHR.

The clinic administrator will ask you questions about these data, and your answers will be used to set performance goals and strategic objectives for the clinic. Considering the small portion of the dataset provided previously, answer the following questions:

1. What type of data is found in each column (e.g., categorical [nominal]; interval [continuous])?
2. Which numerical summary measures would you use to summarize the data in each column (e.g., mean, median, mode, range, standard deviation)?
3. What type of graphical methods would you use to represent the data in each column (e.g., bar chart, run chart)?

Chapter 11

Exercise 11.1
Objective: To plan a rapid cycle improvement project using the IHI improvement model.

Instructions: You will conduct a seven-day rapid cycle improvement project for the following problem: Food in your refrigerator is often not eaten by the "best before" date and has to be thrown out. You start the project by answering three improvement questions:

1. What am I trying to accomplish?

2. How will I know the change is an improvement?
3. What change can I make that will result in improvement?

You may choose to record your responses on the Improvement Questions Worksheet that follows or on one similar to it.

Improvement Questions Worksheet	
What Am I Trying to Accomplish? Write a short (one or two sentence), general statement describing what you want to accomplish within the next seven days.	
How Will I Know the Change Is an Improvement? Identify one numerical target for this seven-day improvement cycle, including expected time frame (number of days) for achieving the target.	
What Change Can I Make That Will Result in Improvement? Describe one small process change you can implement and measure in seven days.	

Exercise 11.2
Objective: To practice anticipating unintended consequences.

Instructions: For questions a through e, you may choose to record your responses on the Unintended Consequences Worksheet that follows or on one similar to it.

   a. Select any process that takes place in a health services organization. Write that process in the center column, column A.
   b. In column B, identify who (person, group, department, stakeholder) influences the process. In other words, think about the activities and people upstream from your process.
   c. Identify who is influenced by the process in column C. In other words, think about the activities and people downstream from your process.
   d. Extend your response one more time. Identify who influences the items in column B. Write your response in column D.
   e. Identify who is influenced by the items in column C. Write your response in column E.
   f. Describe one or two unintended consequences created by a change in the process identified in column A.

Unintended Consequences Worksheet				
D	**B**	**A**	**C**	**E**
Who influences the entries in column B?	Who influences the process?	The process	Who is influenced by the process?	Who is influenced by the entries in column C?

Chapter 12

Exercise 12.1
Objective: To practice creating a project charter.

Instructions: Read the case study. Assume you are one of the two directors in the case study, and you are writing a team charter jointly with the other director to address the problems identified in the case study. Use the template in exhibit 12.1 or a similar format to document the project charter.

Case Study: The directors of imaging services and surgical services in a hospital are discussing an improvement opportunity involving care provided to patients with breast cancer. The hospital is encountering delays for procedures involving surgical removal of breast tissue (lumpectomy) in the area where an image-guided core needle biopsy has been performed. During the surgery, the removed tissue is imaged to ensure that the biopsy clip and microcalcifications are present in the specimen. The imaging must be done with a mammographic unit to provide visualization of the microcalcifications. Because the mammography machines are in the Breast Center, which is only open regular business hours, scheduling for the lumpectomy procedures is restricted to when a mammography technologist is available. This limitation causes delays as late as 8:00 p.m., and technologists must be paid overtime for these evening procedures. In addition, even during Breast Center operating hours, the breast tissue has to be packaged and delivered by hand from the operating suite to the imaging department—and after the specimen is imaged, it must be returned to surgery, all while the surgeon waits with the patient still under general anesthesia. The hospital is not able to meet the needs of the surgeon for late cases, and even the requirements for cases during the day are not being fully met.

Exercise 12.2
Objective: To practice creating a process flowchart.

Instructions: Develop a flowchart for a healthcare process that you are familiar with. The flowchart should have a starting point and an end point. All key process steps should be included. Use the type of flowchart that will best display the steps in your chosen process. The flowchart can be hand drawn, or you can use software such as Microsoft Excel, Visio, or PowerPoint. Two examples of flowcharts are provided in this chapter, and the web resources included at the end of this chapter contain additional examples.

Chapter 13

Exercise 13.1
Objective: To practice identifying different types of errors described in Reason's Swiss cheese model.

Instructions:
- Consider the following scenario: In Florida, Clara, an active 94-year-old great-grandmother who still worked as a hospital volunteer two days a week, was admitted to the hospital for a bowel obstruction. She and her family, along with nurses from the hospital, said that there were too few nurses to check on her during the night when her eldest son went home to sleep for a couple of hours. Clara called the nurses to help her use the bathroom but when no one came, she climbed over the bed railing. Still groggy from surgery 20 hours earlier, Clara fell to the floor and broke her left hip. She died two days later during surgery to repair the hip fracture. "It was just too much for her," said her grandson. "For want of one nurse, she died" (Gibson and Singh 2003, 101).
- Review the following list of latent errors, active errors, and preconditions that could have contributed to the event described in this scenario.

  – Absence of one nurse and one nurse aide because of illness that night
  – Clara's advanced age not taken into consideration by caregivers
  – Unavailability of staff to fill in for the two people calling in sick
  – Falls risk assessment not complete on patient's chart
  – Decision to upgrade computed tomography scanner over purchasing safer patient beds
  – Lack of training for nurses about specialized needs of elderly patients, especially related to their responses to medications
  – The departure of Clara's son
  – Consistent scheduling of the night shift with minimum staff needed on the unit
  – Bioengineering's skipping of last month's preventive maintenance check on the call light system (because the department was six weeks behind on its work)
  – Admission of three new patients to this unit from the emergency department between 7:00 pm and 10:00 pm
  – Falls precautions not implemented for this patient

Write the errors and risk factors in column 2 beside the appropriate category.

Category/Type of Failure	Error
Latent errors at the level of senior decision makers	
Latent failures at the level of frontline management	
Circumstances or conditions present when the patient's accident occurred	
Active errors associated with this event	

Exercise 13.2
Objective: To practice addressing the questions in The Joint Commission's "Framework for Conducting a Root Cause Analysis and Action Plan."

Instructions:
- Download The Joint Commission framework from www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/rca_framework_101017.pdf.
- Read the following case study.
- Follow the instructions at the end of the case study.

Case Study: The letter in this case study is adapted with permission from Trina Bingham, a student in the nursing master's degree program at Duke University School of Nursing in 2005.

You are the risk manager of a tertiary care hospital and have just received the following letter from a patient who was recently discharged from your facility.

Dear Risk Manager,

Last month, I had surgery at your hospital. I was supposed to have a short laparoscopic surgery with a discharge by lunch, but it turned into an open surgery with complications. This led to a four-day hospital stay and discharge with a Foley catheter. Overall, my hospital stay was OK, but I had a situation when the call bell was broken. It was during the night, and I was alone. I needed pain meds. I kept ringing the call bell and no one answered. I used my phone to call the switchboard and no one answered. I didn't want to yell. My IV began beeping (to be honest I kinked the tubing to make it beep), but no one came with that noise either. Eventually the certified nursing assistant came to routinely check my vitals and she got a nurse for me. They switched call bells, but apparently there was an electrical problem, and the call bell couldn't be fixed until the next day, when maintenance was working. The CNA told me to "holler if I needed anything" as she walked out, closing the door. I was so mad, but by this time, the IV pain

med was working and I was dozing off. I reported the situation again on day shift and spoke to the director of nursing and the quality assurance manager. Upon discharge, I included this dangerous and unethical situation on my patient satisfaction survey. For me, it worked out OK. All I needed was pain medicine, but what if I had needed help for something more serious? But I have to wonder, when these data are combined with all the other data, if my experience will be minimized. Depending on the layout of satisfaction and quality of care survey results, this situation could look very minor. For all I know, my dissatisfaction was under the heading "dissatisfied with room."

I am writing to you because I have not heard from the director of nursing or the quality assurance manager about what they have done to fix the problems. I believe it is important that you hear my complaint so other patients will not have to go through the terrible experience that I did.

To fix the problems described in this patient's letter, you realize you must first understand the root causes of the problems. Brainstorm possible responses to the questions in "A Framework for Conducting a Root Cause Analysis and Action Plan" by The Joint Commission (2017).

Exercise 13.3
Objective: To use criteria for evaluating the safety culture in an organization.

Instructions: The American College of Healthcare Executives has a self-assessment for leaders to use to evaluate the safety culture in their organization. This assessment can be found online at http://safety.ache.org/.

- Complete the safety culture assessment for the organization or department where you work. Identify the two most important opportunities for improvement. Explain why you selected these two opportunities for improvement.
- If you do not currently work in a health services facility, review the survey questions and choose the two questions you consider to be most important to the safety culture in an organization. Explain why you selected these questions.