

DECIDE

A Decision-Making Model for More Effective Decision Making by Health Care Managers

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The purpose of this article is to describe a step-by-step process for decision making, and a model is developed to aid health care managers in making more quality decisions, which ultimately determines the success of organizations. The DECIDE model is the acronym of 6 particular activities needed in the decision-making process: (1) D = define the problem, (2) E = establish the criteria, (3) C = consider all the alternatives, (4) I = identify the best alternative, (5) D = develop and implement a plan of action, and (6) E = evaluate and monitor the solution and feedback when necessary. The DECIDE model is intended as a resource for health care managers when applying the crucial components of decision making, and it enables managers to improve their decision-making skills, which leads to more effective decisions. Key words: *decision making, decision model, decision processes, health care manager*

HEALTH CARE MANAGERS operate in an increasingly complex system. With numerous economic, legal, ethical, organizational, and technical changes taking place, managerial decision making has a direct impact on individuals in the workplace and on the performance of the organization and is influenced by a multitude of other factors that could result in financial success, customer satisfaction, and long-term viability for the organization. Decision making is inherent in all managerial functions and is closely related to the planning function. Regardless of level, all managers make decisions, although the decisions made by senior managers have a broader scope, affect more individuals, and have a greater impact than those made by first-line supervisors. Decision making is a process of choosing the best alternative to achieve individual and organizational objec-

tives. Not all managers know the processes to decision making. Identifying and using the decision-making process help managers to make more effective decisions. Although several decision-making models and processes were found in the literature review, this article is different because it is intended to add to the existing research. The purpose of this article is to describe a step-by-step process for decision making, and a model is developed to aid managers in making more quality decisions, which ultimately determines the success of organizations. Specifically, an application of the decision-making model is presented using a health care example, thus enabling health care managers to improve their decision-making skills.

DECISION-MAKING MODELS

Several different decision-making processes and models were found in the literature.¹⁻⁷ Descriptions and their relevance are discussed here. The basic components of these models are similar. For instance, the military model occurs in 5 steps.¹ It begins with defining the objective in which needs and optimum outcomes are identified. In the second step, all available resources are discussed. Third, a plan is established in which

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a manager writes down the specific action required. The fourth step involves laying out the course of action so that checkpoints are determined to make sure that objectives are met. The final step is to provide closure in which accomplished objectives are indicated. This model can be used to implement decisions; however, specific details are not adequately described. Statements are ambiguous and lacking in clarity to truly aid managers in making decisions. For instance, in the last step, "closure is made up of those final benchmarks of success" to indicate that the plan was successful.² This statement is vague and does not provide managers with direction or adequate information on how to proceed with benchmarking.

The parliamentary model occurs in 8 steps and is similar to the military model. The 8 steps are the following: (1) establish need, (2) define the optimum outcome, (3) conduct a stakeholder review, (4) list the pros and cons, (5) make an option review, (6) review potential consequences, (7) formulate a step-by-step plan, and (8) analyze achievement.¹

Again, this model does not provide specifics. For example, in step 7, establishing a plan does not clarify the kinds of information needed for the plan to be successfully implemented. Furthermore, a third decision model combines elements from both the military and parliamentary models. Known as QUICK, this model focuses on quickly making decisions and executing action. It consists of 5 particular activities in the decision-making process: question appropriate parties, understand your objectives, investigate all options, communicate clearly to all concerned, and keep on top of things by monitoring process. However, the QUICK model lacks detail about the specific activities required. Overall, this model is not comprehensive or well defined.

AN ALTERNATIVE MODEL FOR DECISION MAKING

After a review of the literature on decision making, this article proceeds to describe an

alternative decision-making model to help health care managers in the decision-making process. A decision-making process consists of a series of steps that managers take to arrive at the decision. The purpose is to create a systematic model for decision making. That is, if managers use an organized and precise process, then the chances of more successful and effective decisions will result compared to that of disorganized and unsystematic processes. This article describes a decision-making process using the acronym DECIDE. Each letter of the acronym DECIDE stands for 1 of 6 specific activities that must be carried out before proceeding to the next step. The 6 steps in the DECIDE model is illustrated in Figure 1 and is listed below:

1. D = define the problem.
2. E = establish the criteria.
3. C = consider all the alternatives.
4. I = identify the best alternative.
5. D = develop and implement a plan of action.
6. E = evaluate and monitor the solution and feedback when necessary.

To assist managers in making decisions, Figure 2 is an application of the DECIDE model using a health care example.

D = define the problem

Decision making is a problem-solving process that aims to eliminate barriers to achieving individual or organizational goals. By defining problems or determining what the barriers are, then managers can take steps to remove these barriers. However, defining the problem is not an easy task. It can be a time-consuming process. A manager must question the staff and monitor daily activities and tasks to fully investigate the extent of the problem. Dunn² suggests that what often appears as a problem may only be a symptom and digging deeper can lead to the real problem. For example, senior management noted that many employees were late to work and showed negative attitudes toward each other and the patients. There was increased disagreement among staff,

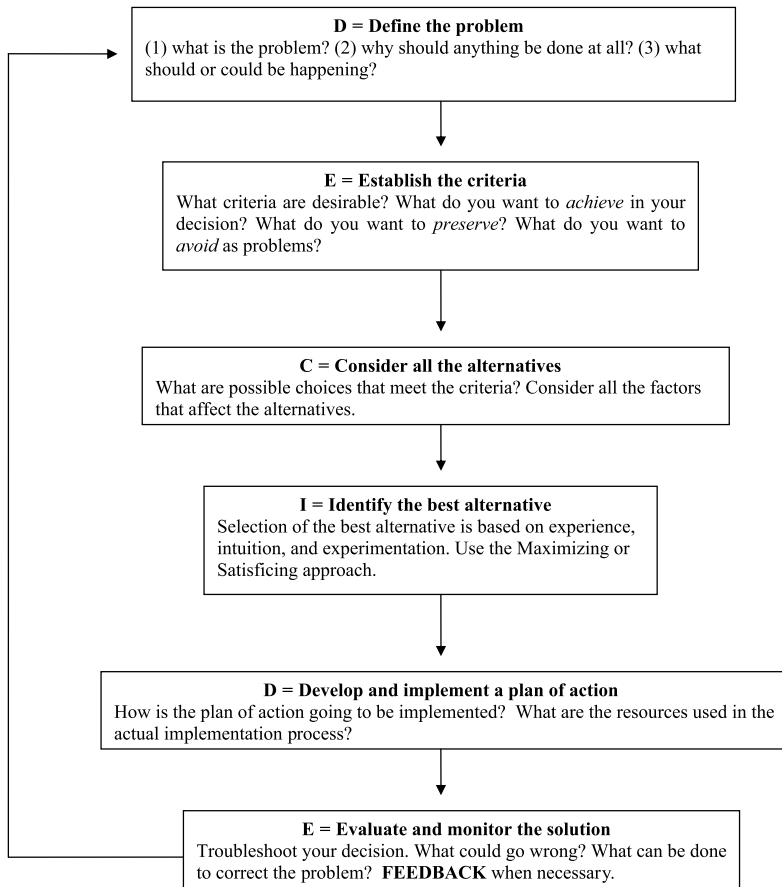


Figure 1. DECIDE: a model of the decision-making process.

which caused many to feel unhappy in the workplace, and ultimately, they chose to voluntarily terminate their employment at ABC Health Care System. The symptoms showed dissatisfied and unmotivated workers. Upon further investigation, senior management found that the real problem was a lack of communication, supervision, and direction by department level managers. As a result, the staff were disgruntled, which led to high turnover. To clearly define the real problem, an individual manager should be concerned with 3 basic questions: (1) what is the problem? (2) Why should anything be done at all? (3) What should or could be happening? According to Arnold,³ a decision is necessary under these conditions:

1. Something has happened that should not have happened. Thus, corrective action

is necessary. For example, all patient medical records were inputted into a new computer database, and mysteriously, all records were lost. The chief information officer recognizes that a serious problem has occurred, and an action must take place to correct the error.

2. Something can happen and should be prevented. For instance, at the Summit Ambulatory Surgery Center, signs were posted to inform patients that renovations and expansions are taking place to better serve patients. Because part of the clinic which houses medical support staff and office equipment is being renovated, the insurance claims specialist along with the copy and fax machines that she needs for her work were temporarily put in the patient

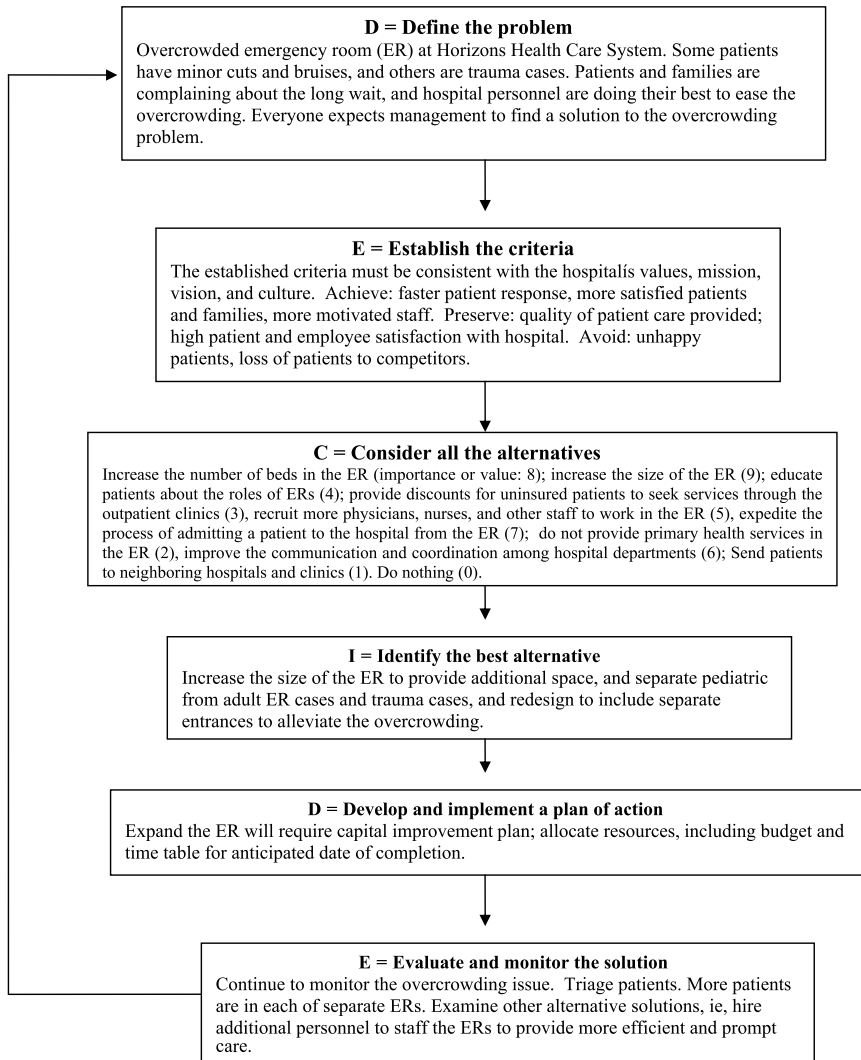


Figure 2. An application of the DECIDE model.

waiting room. One afternoon, the patient registration coordinator was busy with patients, and the claims specialist was out for lunch. A patient walked by and saw that a fax was coming through and fell to the floor. She picked it up and was about to sit down to read through it. Just then, a manager walked by and saw what had occurred. He asked for the fax and was alarmed when he realized that it detailed confidential patient medical history about one of their celebrity patients. Luckily, the patient had not read the confidential

information. However, it could have caused a potential problem had the patient read the fax. Although the renovation was only temporary, problems may occur and must be prevented from happening.

3. Something should happen and is not happening; therefore, it needs to take place. When the urgent care clinic opened 2 years ago, it began as a small operation, and Dr Scott, owner and the only primary care physician, hired 1 nurse and 2 assistants, one responsible for assisting with all clinical aspects and

the other responsible for all support functions, including registering patients, confirming patient appointments, and all insurance responsibilities. Dr Scott's wife served as office manager and took care of all other miscellaneous tasks. Two years later, business was going well. Dr Scott felt that he needed to hire another physician to help him provide more prompt service. As a result, he hired a young medical doctor who just completed her residency. In the meantime, the nurse asked for assistance with clinical responsibilities, and the support staff asked for additional help as well. Mrs. Scott responded that because of lack of resources, everyone must do more with less. Thus, no additional support staff were going to be hired. In this case, as the clinic grows and patient volume increases, something should happen (hire more support staff) and is not happening (Mrs Scott has not hired any additional staff).

Another way to help define a problem is to develop a statement of the problem. There are 4 parts to the statement⁴:

1. in what ways (can the problem be addressed),
2. we (ie, managers, patients, staff) are those who take ownership of the problem,
3. action (implement or make an improvement), and
4. response time (goal attainment).

For instance, a problem statement could be written as follows: "In what ways can we (managers) motivate staff to make them more satisfied at work?" Another problem statement could be as follows: "In what ways can we (managers) reduce patient waiting times in the emergency department?"

In addition, to define problems, managers can compare status quo against some standard. One standard is using the past against which managers compare the present to search for differences. Another way to define problems is through plans and forecasts.⁸ Managers are evaluated against their organizational goals, such as achieving and

maintaining accreditation status, lowering complication rates, and increasing patient satisfaction and other performance variables. When these goals fall below projections, then a manager encounters a problem. A third standard is benchmarking to compare against a recognized standard, such as the quality standards recognized by the National Committee on Quality Assurance. When discrepancies occur among the 3 standards, then problems exist.

McCall and Kaplan⁸ suggest that recognizing that problems exist is not always an automatic part of the decision-making process, but this is an essential function of managers. In fact, effective managers do not spend time dwelling on things that could go wrong. Rather, they find problems and act intuitively to resolve them. The best way to define problems is to gather information by listening and asking questions and also to be knowledgeable about the entire organization by knowing one's subordinates and superiors and knowing the business.

Included in the problem definition is an examination of the purpose or central focus of the decision. In other words, the purpose is the mission or needs that must be determined. It should be stated more broadly to find a wider range of solutions and especially one that is more tailored to meet one's needs. For example, a manager may wish to establish the best office space to accommodate employees with disability, establish the best type of work for an individual who is more introverted, or establish the best way to retain employees in the workplace. Arnold⁵ suggests that the purpose should be formed as follows: "What am I trying to decide and why?" Moreover, statements of purpose should be opportunity oriented, manageable, and positive.⁹ For instance, Nurse Manager Jones of the pediatrics department has noticed that Nurse Adams in the past month has called in sick 3 times and been late 4 times. Before meeting with Adams, Jones tries to establish the purpose of her meeting with Adams. Is she trying to establish the best way to ensure that Adams comes to work on time? That statement is too narrow; instead, she needs to determine

whether Adams is satisfied with her responsibilities as a nurse and whether she enjoys her current duties and the work environment. Rather than reprimanding Adams, Jones focuses on finding out whether Adams is content in the workplace, whether she is getting along with her coworkers, or whether she may be having personal issues that are affecting her work. Having established the purpose, Jones works with Adams to determine the best way to ensure that Adams is happy with her job.

In the decision-making process, the purpose is often forgotten. A narrowly focused purpose may overlook other opportunities or possibilities and lead to fewer alternatives or solutions. By defining the problem and the purpose as broadly as possible, a manager is able to find more significant and far-reaching results.

E = establish the criteria

After having defined the problem, the second step is to establish the criteria. Criteria are the measures used to arrive at a solution that best fulfills the purpose.³ Criteria should not be confused with purpose. The purpose is “what needs to be determined and why?” Decision criteria are used to achieve the purpose. Arnold³ uses 3 questions to help establish the criteria.

1. What do you want to achieve in your decision?
2. What do you want to preserve?
3. What do you want to avoid as problems?

The following is an example of establishing the criteria. David, a first-line supervisor in the human resources department, is being considered for a promotion to the position of a middle-level management human resources specialist position. Before accepting the promotion or deciding to stay in his current position, David clarifies his criteria. He wants to achieve maximum earnings, the freedom to work independently, feelings of accomplishment, pleasant work environment, appreciation and recognition for his work, and the opportunity for growth. At the same time, he hopes to preserve his personal time for his family, time for friends, and time for

hobbies (continue to train for the marathon). Furthermore, he wants to avoid working with unpleasant people, having a high-pressure and stressful job, and having a superior who constantly looks over his shoulder. After establishing a list of criteria, David is now clear on what he hopes to achieve, preserve, and avoid. Next, he classifies the criteria by sorting out the more essential and absolute requirements. Not all criteria are equally important. They are separated into categories of relative importance, ranging from high to low. Criteria that receive high values become more important. In this case, David categorizes his criteria by ranking the most important criterion as achieving the opportunity for personal growth and advancement within the organization. This is considered more essential for David than the other criteria.

Establishing the criteria means being as specific and precise as possible. This means that an individual must be able to separate absolute requirements from desirable ones. For instance, an absolute requirement, or a criterion that must be preserved, is one that is unequivocally necessary. If any decision does not satisfy this criterion or requirement, then that decision should be rejected. On the other hand, a desirable requirement is a goal that one should aim for and try to achieve but is not a “must.” As a further example, if having a high salary is an absolute criterion, then the individual needs to quantify the compensation by stating a minimum salary level. For instance, the absolute criterion would be not to take a position that offers lower than \$50,000 a year. In this way, the criteria are first established and then sorted out as absolute requirements and desirable requirements.

C = consider all the alternatives

Considering all alternatives is a search for various alternative courses of actions and solutions. Many alternatives, and not just the traditional 2 or 3, need to be considered.¹⁰ To derive all the alternatives, a manager must engage in brainstorming to develop and

consider as many alternatives as possible. This method leads to more choices and increases communication and team building. Another method to develop alternatives is through using the Internet to hold discussion groups with peers around the world who can actively participate in discussions by sharing their experiences and outcomes. A major advantage of this method is being able to obtain alternatives from colleagues from a variety of cultures, which enriches the alternatives.² For any given situation, there should be several alternatives. Although these choices are not obvious, a manager is responsible for casting a wider net to create as many as possible. Some alternatives may not be desirable. For instance, managers should be aware that there are certain factors that could limit alternatives, such as authority, human, physical, technological, or economic factors. Specifically, higher administration or central authority may inform a middle- or first-level manager that a certain alternative is not feasible (ie, central administration does not support a manager's alternative to reorganize and combine 2 departments of dermatology under 1 manager). Human factors (ie, lack of experienced staff) may also prevent the implementation of an alternative. Physical factors (ie, redesigning the cosmetic surgery clinic) are not physically possible because of space issues. Technological factors (ie, purchasing new medical equipment) may not take precedence this fiscal year. Economic factors (ie, recession) may hinder alternatives from being implemented because costs are much higher than expected. When evaluating alternatives, a manager should identify the economy of the effort, that is, the action that will provide the greatest benefit with the least amount of effort and expenditure.² In addition to these factors, there are other factors that can limit a manager's alternative decisions. For example, legal restrictions, moral and ethical norms, social norms, and formal organizational policies and rules can prevent alternatives from being feasible.

A major factor that determines which alternatives should be chosen is the impor-

tance of organizational values. Managers must abide by 5 essential values: (1) accountability, (2) adaptability, (3) dependability (4) responsibility, and (5) visibility.¹ First, managers are held accountable for the decisions they make, how those decisions were determined, and what data were collected and analyzed. Second, in making decisions, managers must have a degree of adaptability so that options can be considered and made flexible. Third, employees rely on managers to make timely decisions. Fourth, a manager must be able to take ownership of the decisions. Although managers can delegate particular tasks, they ultimately take responsibility for the outcome. Finally, a manager's visibility is especially crucial in uncertain times and in situations that are out of the norm.

Only when all the factors that may affect a set of alternatives are fully considered, then a list of feasible alternatives is generated.

I = identify the best alternative

In the process of identifying the best alternative from among the various chosen alternatives, a manager should be aware that an alternative decision must be of high quality and supported and accepted by the group of employees immediately affected by the decision in the organization. Decisions would not be effective or may even be sabotaged when the group does not willingly accept the decision.

A manager's final selection of various alternatives is influenced by experience (experiential decision making), intuition, or experimentation. Experiential decision making is very common in medical care. Physicians often base their decisions on their experience. A manager can base his/her decision on a past experience because of similarities in problem definition. Whatever was held true in the past may still work in the present situation. Previous experience can also be a good defense tactic when identifying an appropriate alternative.²

Intuition or "gut feeling" can help managers choose among alternatives. However,

managers should not base their decisions on hunches alone. Experimentation or testing is a valid approach to aid in identifying the best alternative. For instance, a manager may want to test different work schedules to accommodate the needs of particular employees. Arnold and Tompkins⁹ recommend that the best way to distinguish among the alternatives is to place values on the alternatives. In other words, similar to step 2 in establishing the criteria, here again, a manager should rank each alternative against each criterion. An alternative that only meets half of the criteria gets a ranking of 5 in relation to the other alternatives. Once all the alternatives have been ranked against the criteria, one can distinguish the more valuable and important alternatives that satisfy more criteria compared to the others that meet fewer criteria.

An alternative that satisfies all the criteria gets the highest rating (ie, a rating of a 10) and becomes the best alternative. This approach, known as *maximizing*, develops the one best solution by comparing all the alternatives against all the criteria until one solution emerges. The maximizing method leads to the one best solution, which is the only acceptable one.¹¹

However, when pressured by time, an urgent solution is needed. In these cases, a set of minimal criteria is developed, and any alternative that fulfills the minimal criteria is acceptable. This is known as *satisficing*. Managers recognize that there may be better solutions, but this simplified approach is used because of the urgency of the situation to identify any alternative that meets the minimal criteria.¹¹

D = develop and implement a plan of action

Developing and implementing a plan of action are as important as making the decision. Planning is the most fundamental function of managers. It provides direction, establishes control, anticipates change, and develops responses to uncertainty. This step involves 2 essential processes: communica-

tion and coordination.^{2,12} Communication entails the exchange of information among various individuals in the organization. If the decision is not clearly communicated to the staff who must perform the decision and unless it is coordinated with other departments in the organization, the plan and the decision are worthless. In this step, 2 questions must be answered. (1) How is the action plan going to be implemented? What are the resources used in the actual implementation? Within the planning function, goals and objectives are set. Senior-level administrators are responsible for the primary objectives for the organization, whereas middle-level managers are responsible for secondary or department goals. Specifically, they must be able to develop measurable objectives in the action plan. For instance, the amount of time and monetary and human resources devoted to the implementation process should be quantified and not left to chance. A detailed plan of action is necessary to ensure that the decision has been implemented according to plan.

Decisions are affected by several contextual factors, including personal preferences, urgency of the problem, and the various people involved in the decision-making process.⁸ Personal preferences, in this case, of a health care manager influence the actions that take place. There are different types of managers. Some are cautious and prefer to analyze problems carefully, even routine ones, before taking an action. Others are quick to respond to any type of situation. These individual preferences can affect the kind of action a problem receives. Another important contextual factor is urgency. The pressure of impending deadlines results in quick action. Quick action consists of 3 characteristics: speed, one-person decision maker, and limited time to search for information.⁸ Because managers are constantly juggling many tasks, the speed for resolving problems is rapid. Quick action often involves only one person making the decision. Although a manager may receive input and additional information from others in the organization, in general, the manager

has the formal authority to make the decision and is held accountable for the action taken. When pressured to act, managers do not have the luxury of a thorough examination of all possibilities. Instead, managers may use the shortcut approach and accept the first alternative that meets the minimal criteria and settle for short-run solutions, such as using the satisficing approach. Quick action relies upon a manager who has the experience and knowledge in the field and is able to quickly acquire information to make a decision, analyze the problem to determine whether quick action is really needed, break down the problem to identify which parts need immediate action, consider the alternatives by leaving room for change, and implement the best alternative solution although he/she knows that there are risks involved. Quick action should occur in urgent situations, when problems are simple, fewer people are involved, and there is no active conflict. On the other hand, quick action should not be used for more complex and strategic problems, when multiple departments and people are involved in the decision, and there is power struggle.⁸

E = evaluate and monitor the solution

The final step in the DECIDE model is to evaluate and monitor the solution. It is not enough to just make a decision. It is crucial to evaluate the decision made and to investigate "what could go wrong." This step helps to prevent, minimize, and overcome all possible adverse consequences. For instance, once the decision is made, it may not work, and then a manager must start over to redefine the problem. Feedback is important because it provides information related to the decision. Asking questions from superiors, staff, patients, and other customers are parts of the feedback process. Through feedback, a manager finds out whether the decision led to the intended results. Even if the action has the intended effects, unintended consequences may also have occurred. Sometimes, although a decision was correctly implemented, it does not last forever, and

changes are needed over time, as problems recur and new problems arise.

Part of the evaluation process also involves troubleshooting. This consists of 3 basic steps.³ First, list all the possible problems that could occur. Second, determine the likelihood of each problem occurring and the impact if it does occur, using low, medium, or high possibilities. Finally, take preventive action to keep the potential problem from occurring. In this way, all possible precautions are taken into consideration to assure the success of the decision.

DISCUSSION AND CONCLUSION

There is no magic or quick fix to decision making. It takes a great deal of skills, knowledge, and understanding, all of which take practice and are accumulated over time. Nevertheless, the decision-making process and model described in this article are intended to help managers improve their decision making to result in more effective decisions. By using the DECIDE model, managers can become better equipped to act in various situations that require decisions to be made.

In conclusion, decision making is a skill. Managers can learn to become better decision makers. Effective decision makers require managers to be knowledgeable about themselves and other individuals, as well as possess technical expertise or industry knowledge. A manager who knows his/her own weaknesses and strengths and others' needs and wants is more likely to make a decision that is accepted by others. At the same time, a decision maker can always benefit from study and practice. This article has introduced ideas and techniques about decision making, and it is intended as a resource to focus on the crucial components of decision making to help a manager gain greater understanding in the art of decision making. Specifically, this article has described several scenarios and examples based on the health care field to promote more skilled managerial decision making through the DECIDE model.

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