Some of the common tools that managers use to create operational plan

Gantt Chart

The Gantt chart is useful for planning and scheduling projects.

It allows the manager to assess how long a project should take, determine the resources needed, and lay out the order in which tasks need to be carried out.

Gantt charts help the manager monitor the project's progress and stay on track.

Gantt charts help the manager plan out the tasks.

An advantage of the chart is the ability to review projects that are progressing in a timely fashion.

Gantt Chart

WEEK									
1	2	3	4	5	6	7	8	9	10
Recruit staff Market center	Hire staff	Assess staff's strengths	Train staff Order furniture and equipment	Train staff	Install furniture and equipment	Install informa-tion system	Prepare patient medical records	Hold open house	Admit patients

Gantt Control Chart

Cumulative weeks	1	2	3	4	5	6	7	8
Project 1 orientation SNII	X				X			
Project 2 orientation SNII		X				X		
Project 3 SWOT seminars	X		X		X		X	
Project 4 establish surgical center								X

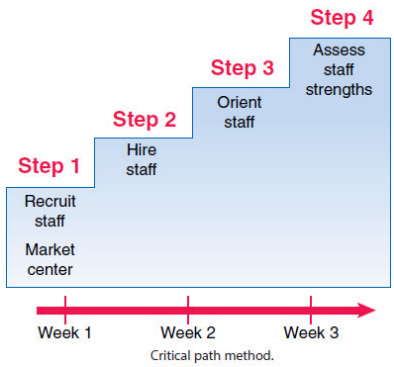
Critical Path Method

The critical path method (CPM) is another tool that helps managers prepare a schedule and plan resources.

During the management of a project, the CPM allows a manager to monitor achievement of project goals and take remedial action if the project is not going well.

One activity cannot start until another is completed.

In the event that the task is completed in less time, such as hiring staff, the time of completion can be adjusted in the diagram.



Critical path method.

Program Evaluation and Review Technique

The program evaluation and review technique (PERT) calculates a realistic timeframe by using the shortest possible time each activity will take, the most likely length of time, and the longest time it might take.

Managers can input these figures into PERT to calculate the time to use for each project.

Drivers of Quality

Drivers of Quality

An important indicator of quality is meeting customer expectations. Some organizational leaders take that a step further; they are not satisfied until they have exceeded customer expectations. Meeting customer expectations can be a bit more difficult in health care because, unlike in other industries, the purchaser of health-care services is rarely the consumer of those same services. Nurse leaders play a pivotal role in these efforts and therefore must understand consumer quality expectations

PATIENTS

As patients are exposed to more media attention to health care, advertisements from hospitals and pharmaceuticals, and access to information on health care, they are becoming more discriminating in what they expect and demand from providers. Patients have a choice about health-care providers. Customer satisfaction surveys are beginning to capture better what patients want and how they are making their choices. Most recently, patients as consumers have indicated that compassion, caring, and excellence are what make a hospital the hospital of choice (Lee, 2004).

"The patient remains the center of all quality efforts"

THE REGULATORS

Regulators have been involved in setting minimum standards for quality measurement for many years. In more recent years they have joined forces with other professional organizations and payers to drive public reporting of quality measures.

Centers for Medicare and Medicaid Services

The Centers for Medicare and Medicaid Services(CMS) is the government institution that oversees both Medicare and Medicaid programs, large consumers of health care.

As a regulator, CMS not only looks at JCAHO accreditation but requires quality indicator reporting of its own, such as its Hospital Compare initiative.

State Regulators

In addition to meeting quality standards set by accreditation and federal agencies, health-care providers are required to meet standards set by state regulators. Typically, state oversight falls under the state's department of health, which administers licenses to hospitals, day-care facilities, long-term care, home care, laboratories, behavioral health facilities, and freestanding surgery centers.

PAYERS

Employers constitute a large proportion of the payers of health-care services. Competition in global markets, combined with escalating health-care costs, is driving Fortune 500 companies to join consumers on the quality bandwagon. In fact, 170 of these companies have formed the Leapfrog Group, the largest purchasing group of health care.

Through managed care plans and other forms of health insurance arrangements, employers help to bring focus to inefficiencies of the health-care system.

PROFESSIONAL GROUPS

The Institute of Medicine and National Quality Forum consist of representatives across professional disciplines that have had tremendous influence on shaping the national quality agenda.

STRATEGIC PLANNING

STRATEGIC PLANNING

Strategic planning is a systematic process that emphasizes assessment of the environment (PEST--economic, political, social, and technological) both internally and externally.

It focuses on performance improvement and utilizes strategies to accomplish the organization's desired outcomes.

Strategic planning is a management tool that helps organizations set long-term goals.

Strategic Planning Process

Strategic planning is a step-by-step process that delineates ongoing group activity.

1. Assessment Of The Environment
2. Mission And Vision Statements
3. Goal Setting
4. Objectives
5. Strategies
6. Implementation
7. Outcomes
8. Evaluation

1. Assessment Of The Environment

The first step of any planning process is assessing the environment. At any level, the assessment conducted is both external and internal. At the unit level, an environmental assessment includes assessment of employees, for example. The manager needs to examine how the staff is likely to feel and react to the contents of the project, operational, or strategic plan. Even at an organizational level, a nursing executive needs to know the staff in the departments he/she oversees. Because staff plays a crucial role in strategic planning.

Environmental Assessment

ASSESSMENT OF EXTERNAL ENVIRONMENT	ASSESSMENT OF INTERNAL ENVIRONMENT
Competition	Patient care
Markets	Financial resources
Health-care trends	Human resources
Economic factors	Information systems
PEST: Political, Educational, Social, Technology factors	Research capabilities
	Staff development
	Educational systems

SWOT Technique

STRENGTHS	WEAKNESSES
10-year- old facility	Nursing staff turnover at 36%
Experienced senior staff	Lack of staff development
Strong information system	High nurse/patient ratio
Quality of clinical resources	
OPPORTUNITIES	**THREATS**
Increase in the aging population	Construction of three specialty hospitals
Partnerships with diverse groups	Urban population declining
Develop mentor programs	High unemployment rate
Develop student preceptorship programs	Salary competition between hospitals

Quality Tools and Strategies

- Nurse managers have many quality tools and strategies from which to choose. They should be looking at their unit core processes and making improvements. Tools may be grouped into two categories:

  (1) process analysis and data display

  (2) statistical thinking and control charts.

CHART AUDITS

Until electronic medical records replace paper records, chart audits will remain the most common method of collecting quality data.

As anyone who has ever performed chart audits can attest, this is a time-consuming and expensive method of data collection.

It is important before beginning an audit to spend time considering the types of data required.

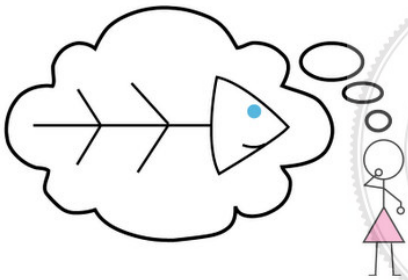
Once Required data have been established, designing an audit tool to assist in data collection will standardize recording of information and facilitate data entry for analysis.

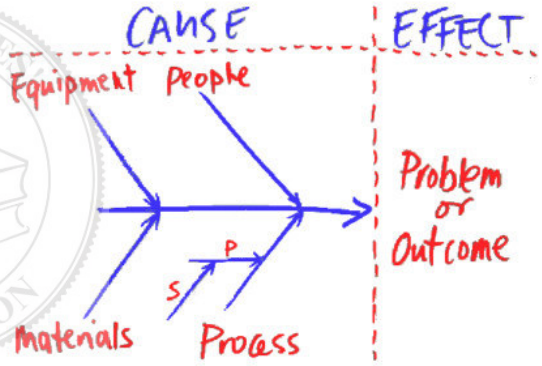
FAILURE MODE AND EFFECTS ANALYSIS: PROSPECTIVE REVIEW

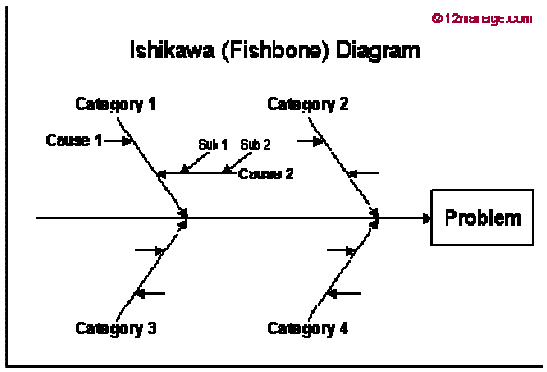
- JCAHO requires leaders to perform a proactive annual failure mode and effects analysis (FMEA) to reduce risk of sentinel events.
- All systems have design weaknesses. FMEA is tool that takes leaders through evaluation of design weaknesses within their processes, enables them to prioritize weaknesses that might be more likely to result in failure (errors) and, based on priorities, decide where to focus on process.
- Redesign aimed at improving patient safety

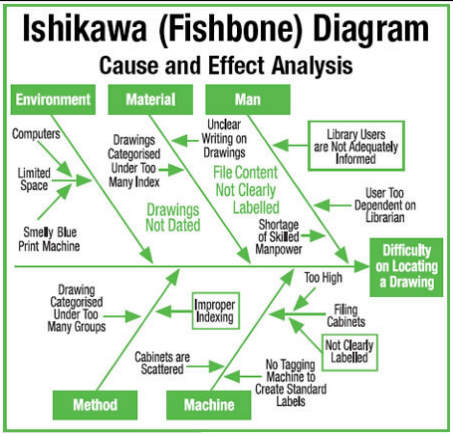
ROOT CAUSE ANALYSIS: RETROSPECTIVE REVIEW

- A root cause analysis, or cause and effect diagram, sometimes called a **fishbone diagram**, is used retrospectively to evaluate potential causes of a problem or sources of variation of a process.
- Possible causes Are generally Grouped in four categories: people, materials, policies and procedures, and equipment.









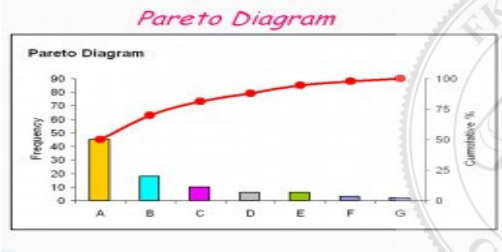
FLOWCHARTS

Flowcharts are diagrams that represent the steps in a process. They are used to evaluate inefficiencies, describe the current process, and train new staff. It is very important to include process experts in the development of flowcharts describing the current process.

PARETO DIAGRAM

A Pareto diagram is used to illustrate the 80/20 rule, which states that 80% of all process variation is produced by 20% of items.

For example, if a nurse manager had a high prevalence of pressure ulcers, she might review prevalence data from the previous year to evaluate what types of pressure ulcers were occurring on her unit.



HISTOGRAMS

Histograms provide another way to view distribution of data. A histogram may be used when a run or control chart is not possible because the time sequence of data has not been preserved (Executive Learning, 2002). A histogram may be useful to understand patterns in data that are not apparent by examining lists or tabled values (Institute for Healthcare Improvement, 2004).

RUN CHARTS

Run charts are graphical displays of data over time. The vertical axis depicts the key quality characteristic, or process variable. The horizontal axis represents time. Run charts should also contain a center line representing either a mean or a median. A median should be used if the data contain outliers, Which are less sensitive to extreme values.

STATISTICAL THINKING AND CONTROL CHARTS

The topic of statistical thinking involves three central thinking about all work as processes; knowing that all processes exhibit variation; and recognizing, appropriately responding to, and taking steps to reduce unnecessary variation (Executive Learning, 2002).

Staffing

Scheduling is defined as the process of making the personnel work assignments for a specific period.

Staffing is the process of assigning people to fill the roles designed for an organizational structure through recruitment, selection, and placement.

In 1999, the ANA published *Principles for Nurse Staffing, which emphasized the nursing work environment* to provide safe patient care.

Subsequently, the ANA advocated a work environment that supports nurses in providing the best possible patient care by :

- budgeting enough positions,
- administrative support,
- good nurse-physician relations,
- career advancement options,
- work flexibility, and
- personal choice in scheduling (ANA, 1999).

Cont…

Staffing, according to the Center for American Nurses (*The American Nurse, 2006), refers to job* assignments.

Job assignments include the following:

- the volume of work assigned to individuals,
- the professional skills required for particular job assignments,
- the duration of experience in a particular job category, and
- work schedules.

cont

The process of staffing begins with an assessment of the current staffing situation.

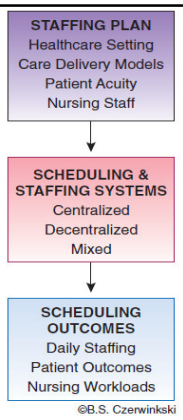
The assessment includes the qualifications and competence of the staff available (ANA, 2004).

The next step is to formulate a plan to meet future needs.

The staffing process culminates with a schedule (organized plan) of personnel to provide patient care services.

Scheduling variables are defined as:

1. **The number of patients, complexity of patient** condition, and nursing care required.
2. **The physical environment in which nursing** care is to be provided.
3. **The nursing staff members' competency levels,** qualifications, skill range, knowledge or ability, experience level.
4. **The level of supervision required.**
5. **Availability of nursing staff members for the** assignment of responsibilities.



Staffing process.

Health care-setting

Health-Care Setting

The health-care setting is where the patient care services are provided.

It is the first consideration in developing the staffing plan.

Care Delivery Models

Care delivery models, also referred to as nursing care delivery systems or patient care delivery models, can vary from one nursing unit to another, depending on the type of patients, the care requirements, and available resources.

The focus of care delivery models is on the patient and how nursing care services are developed and provided.

Comparison of Common Client Care Models

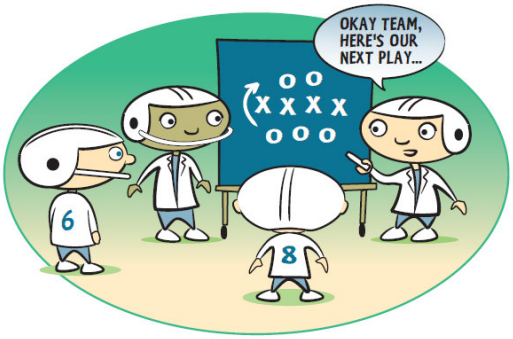
Model	Nurses Are Called	Description	Where Model is Used
Functional	Charge nurse Medical nurse Treatment nurse	Nurses are assigned to specific tasks rather than specific clients.	Hospitals Nursing homes Nurse consultants Operating rooms
Team	Team leader Team member	Nursing staff members are divided into small groups responsible for the total care of a given number of clients.	Hospitals Nursing homes Home care Hospice
Primary Care	Primary nurse Associate nurse	Nurses are designated either as the primary nurse responsible for clients' care or as the associate nurse who assists in carrying out the care.	Hospitals Specialty units Dialysis Home care
Modular	Care pair	Nurses are paired with less-trained caregivers. Generally involves cross-training of personnel.	Hospitals Home health care Transport teams

Common Patient Care Delivery Methods

Total patient care
Functional nursing
Team and modular nursing
Primary nursing
Case management

Nursing Care Delivery Model

- Case Method
- Functional Method
- Team Nursing
- Total Patient Care
- Primary Care Nursing
- Modular Care
- Partnership Model
- Case Management



Team conference, planning, and communication are critical elements of team nursing.

Cont…

A care delivery model needs to address four components:

1. **Patient needs**
2. **Patient population demographics**
3. **Number of nursing staff members**
4. **Ratio of nurses serving various roles and levels**

(ANCC Magnet, 2004, p. 46).

Cont…

The staffing plan is based on patient needs by patient classification level:

- Level 1 patient classification: one nurse for four to five patients
- Level 2 patient classification: one nurse for one to three patients
- Level 3 patient classification: one nurse for one patient

Cont…

Patient Acuity

Patient needs are summarized in patient acuity systems.

Patient needs are specific to each patient, and conditions may change from hour to hour, shift to shift, day to day, and so on. Thus, staffing plans need to be modified constantly.

In patient acuity or severity systems, patients are assigned a location in a hospital based on an acuity system and/or admitting diagnoses.

Nursing Staff

The work activity of the nursing staff includes **direct care, indirect care, unit-related, personal time, and documentation (Urden & Roode, 1997).**

Staff members refer to all personnel reporting to the nurse administrator (ANCC, 2004, p. 84).

Staff nurse refers to an RN responsible for the direct and indirect care of patients in the hospital (McClure and Hinshaw, 2002, p. 7).

Staff members, as defined by Mosby (2005), are people who work toward a common goal and are employed or supervised by someone of higher rank, such as the nurses in a hospital.

Staffing is the process of assigning people to fill the roles designed for an organizational structure through recruitment, selection, and placement.

Patient Outcomes

The nurse staffing variables used to measure patient outcomes are daily average hours of care, ratio of RNs to average patient census, workload, and skill mix.

Patient outcomes most generally are based on adverse occurrences such as:

- unit rates of patient falls,
- pressure ulcers,
- respiratory and urinary tract infections, and
- family-patient complaints.