SERVICE LINE MANAGEMENT AS A HEALTH CARE MANAGEMENT MODEL

By

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ABSTRACT

In the 1980s there was a move toward service line management (SLM) in the health care arena. The purpose was to help market services so that organizations could increase their market share to help off set the loss of revenue due to implementation of DRGs (Diagnostic Related Groups). Due to the focus of service line management, it was not successful. There is now a resurgence of the SLM model; however, the purpose and focus have shifted to improvement of clinical performance, financial performance, and patient satisfaction. The purpose of this paper is to understand SLM and how it relates to health care management. To understand SLM a literature search was completed. To further enhance the author's knowledge of SLM several health care leaders were interviewed. The purpose was to see if their experiences were similar to the accounts in the literature and report any new findings that emerged.

A literature search showed that there are many structures that organizations could use to obtain their goals. Organizational structure is important and needs to be individualized to each health care organization. Success is dependant on choosing the correct organizational structure, having support for the concept from senior management down, having support from a physician champion, staff buy-in, and lastly preventing territorialism between service lines in the organization.

Eight health care leaders were interviewed to obtain information about SLM. Their responses were similar to accounts in the literature. They confirmed that success is dependent on choosing the correct organizational structure, having support for the concept from senior management down, having support from a physician champion, having staff buy-in, and lastly preventing territorialism between service lines in the organization.

With reference to smaller community hospitals, six out of eight interviewees felt that service lines would be effective; however, there would be more obstacles to the implementation process. These obstacles were related to fixed service line costs and lack of specialty units. The organizations would need to focus on process improvement.

All but two interviewees felt that a full continuum of care was not needed to start a service line model. Again the focus would need to be centered around process improvement in order to succeed.

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Chapter 1: Introduction

With the changes in health care including shrinking reimbursement it is imperative that hospitals find a management model that will allow them to emphasize their strengths, control their costs, and manage the delivery and outcomes of care (Longshore, 1998, p. 72). Service Line Management (SLM) is one model that some organizations have begun to use. However, is this model appropriate for all hospitals, especially smaller hospitals that cannot offer the full spectrum of services for a particular disease entity? Is the cost to sustain the service line too much for smaller hospitals to undertake? The purpose of this study is to understand the role of service line management in regards to health care management. In the process of this study the author hoped to learn which factors hinder or enhance the implementation of this model; which organizations thrive under this model; the financial impact of running a service line; and lastly, can organizations without a whole spectrum of services for a specific disease be successful using this model?

Through a literature review the author learned what the past and current trends are in service line management. Then the author interviewed several health care leaders and learned from their experiences and compared these to the accounts in the literature. The author now has a better understanding of service line management and its application in the health care industry.

Chapter 2: Background

In the late 1980s DRGs (Diagnostic Related Groups) came to the forefront. The financial impact on hospitals was major. In an attempt to regain financial losses health care leaders searched for a new management approach which would increase their market share and thus improve their financial status. One management model that emerged was service line management. It developed from the product line approach that industry used (Birrer, Cornet, and Nolan, 2000, p. 2 - 3; Coile, 1999a, p. 4). The product line approach focused on businesses branding their product to help capture the market. The basis of this was advertise, advertise, advertise!

Many marketing gurus saw the problems health care organizations were having. They tried to adapt the product line management style to health care. The focus was on branding a hospital's services through marketing. Many health care organizations spent millions of dollars on marketing. This approach however, did not work well in health care. Organizations found that it was difficult to brand or market an intangible product such as health care. There were mixed results. Many health systems abandoned services lines within three to five years. In the early 1990s managed care came to the forefront. Marketing to the public was not effective. Now managed care companies were calling the shots regarding referrals (Longshore, 1998, p. 73 - 74). This had health care organizations focusing more on cost containment and managed care contracts. The dollars for advertising disappeared. Many organizations at this time abandoned the service line approach. Of those that did not

abandon service lines they switched their focus to a more financial model (Coile, 1999b, p. 2).

Another reason for service line failure according to Birrer et al. (2000, p. 14) and Coile (1999b, p. 2) is the inability of the health care organization to influence physician practice decisions so they could streamline processes, improve outcomes, and save money. The focus of the service lines switched from marketing to managing their patient care better. The lack of buy-in from physicians and the inability to change a physician's practice led to the downfall of service line management.

Now more than a decade later, health care organizations are struggling financially with the emergence of the Balanced Budget Act. Health care organizations have had to look at management models that could help them expand their market and improve their quality of care while keeping their costs under control. The ideal of service line management has again emerged. However, the model has changed. It is more cost containment and outcomes focused. Longshore (1998, p. 74) noted the focus of service lines switched to a more financial model after the induction of managed care. He feels the new model allows the facility to respond to the market quicker.

Health care organizations learned several lessons from the past. These include:

- Physician involvement is critical to success in creating and managing clinical service lines.
- Service-line revenue and cost accounting are necessary to manage the business and evaluate bottom-line results.

- Market research on customer needs and expectations provides an essential baseline for conducting marketing and advertising campaigns.
- Service-line management requires a multidisciplinary approach involving doctors, nurses, therapist, administrative management, and marketing staff.
- Service-line managers must own their own businesses and have real control over their budgets.
- Each service line exists in its unique mini-market of competitors and substitutes, often including some competition within the provider organization.
- Creating new brand names is a costly and time-consuming process that can confuse customers if not done well in a sustained marketing effort.
- Corporate overhead can kill a potentially successful service line by increasing fixed costs without adding value (Coile, 1999b, p. 2).

With these lessons in mind many health care leaders are moving forward with implementing the model.

Throughout the paper the words, product line and service line, are both used. As noted above the term, product line, was derived from industry. Many health care clinicians were opposed to this term. They felt that the term service line was more appropriate. Thus some institutions use the term product line and others service line. However, the concepts are the same.

There will be several abbreviations used throughout this paper. These are listed below:

APC Ambulatory Payment Classification (Medical Outpatient Payment System)

COE Center of Excellence

DRG Diagnostic Related Groups (Medicare Inpatient Payment System)

IDS Integrated Delivery System

SL Service Line

SLM Service Line Management

It is important to also include the following definitions:

True Service Line Model	In this model all services report to the service line manager. This is not a matrix organization.
Matrix Model	This is a combination of functional structure and service line management. In this model middle managers have explicit dual accountability. Reporting is usually developed around any pair of the potential conflict points: geography, time, skill or profession, task or patient (Clancy, 2002, p. 25; Griffith, 1999, p. 677).

Chapter 3: Literature Review

In the review of the literature on service line management, several topics consistently emerged. These are the definition of SLM, the reasons for SLM, the types of services that use SLM, SLM goals, SLM structures, and lastly, factors that enhance and hinder SLM. Those topics will serve as subheadings in this section.

Defining Service Line Management:

What is the definition of service line management? Below a list of authors have described service lines in their own words.

> *The theoretical foundation of a service line is that it results in continuum development across specific disease states to improve operational performance and enhance market penetration* (Stupak and Greisler, 1997, p. 14).
>
> *Service Line Management is a method for aligning and coordinating the necessary staff efforts and services for a particular patient population* (Anderson, 1998, p. 23).
>
> *A service line is an arrangement of elements that act cohesively to satisfy a distinct set of needs* (Birrer et al. 2000, p. 2).
>
> *A service line model integrates multiple departments, functions, or services that relate to a particular clinical specialty or subspecialty* (Ronning, Meyer, Franc as cited in Clancy, 2002, p. 25).
>
> *Clinical service lines may be defined as a family of organizational arrangements based on a hospital's outputs, rather than on its inputs* (Charns, Wray, Byrne, Meterko, Parker, Pucci, Fonseca, and Wubbenhorst, 2001, p. 2).

The common theme is the aligning or coordinating of health care services for a specific patient population to improve efficiencies, outcomes, and costs. While this simplified ideal sounds easy to accomplish, the practice in itself can be extremely difficult to achieve because there is disparity between definition and practice. Some

models are labeled as service line management when they truly are not. Thus, it is imperative to understand each person's concept of service line management when discussing this model with him or her.

Reasons for Service Line Management:

There are several reasons for the resurgence of SLM. The first being the induction of managed care. Longshore (1998, p. 74-75) noted that hospitals had to compete in a managed care environment. SLM was one method to help compete in that environment. He noted that SLM had to be more than just a clinical model; it also had to become a financially oriented model. The SL manager had not only to focus on outcomes, but also to get the best-contracted deal with the managed care company. He noted that SLM has a very responsive structure. The structure allows the organization to respond more quickly to its environment.

Managed care plans are basing their contracts on patient outcomes, patient satisfaction, and costs. SLM allows the organization to respond to these demands. The structure allows quick response to the environment. According to Birrer et al. (2000, p. 2 - 3) SLM places the patient at the center of the health care universe. The model creates a high quality service that meets the demands of consumers by proactively involving and empowering line workers at the lowest level.

Another factor that has caused the resurgence of SLM is the Balanced Budget Act of 1997. This Act has created poor bottom lines for hospitals because there was decreased reimbursement to hospitals from Medicare in an effort balance the United States' budget (Anonymous, 2000, p. 18). The service line model with its the new

focus on financial performance and improved clinical outcomes, allowed the services to be more financially solvent through more interactive decision making with the key players (Longshore, 1998, p. 74; Stupak and Greisler, 1997, p. 14).

Another reason for resurgence of SLM was to establish a Center of Excellence. Organizations will use the service line model as a means to achieving a COE (Anderson, 1998, p. 23). It serves as part of a three-prong approach to accomplish the goal. Anderson notes "the SL model is the hospital's first avenue of approach, a means of aligning and coordinating staff efforts and services for a particular population, to a achieve a better integrated service delivery system." The SL model enables a collaborative practice team to oversee research and data evaluation to determine which changes need to be made in order to improve outcomes. The collaborative team consists of physicians and a multidisciplinary team. Anderson (1998, p. 24) further notes, "This approach has helped break down barriers and eliminated the territoriality that develops when departments remain insular for too long. It has also facilitated a more cohesive and informed problem-solving strategy."

Lastly, throughout all of the research it is evident that outcome management and cost effectiveness cannot be achieved unless there is physician input and buy-in (Birrer et al. 2000, p. 8; Coile, 1999b, p. 2; Longshore, 1998, p. 72; Poldeski, 1998a, p. 1; The Advisory Board Company, 2002a, p. 5). Berry (1999, p. 18 – 20) noted that the trend for hospital-physician relationships is toward shared responsibility for service line management. He noted that in a survey conducted by McManis

Associates 17% of respondents had a cardiac SLM joint venture and it was ranked number one in effectiveness. Also in that survey neurosciences SLM joint ventures were ranked very high in effectiveness. SLM can help health care organizations achieve physician buy-in through establishment of joint ventures, gain sharing, or other reward mechanisms.

In summary there are several reasons for the resurgence of service management. These include the emergence of managed care, the implementation of the Balanced Budget Act, the need to improve clinical and financial outcomes, the need to improve patient satisfaction, the need for physician buy-in and guidance, and as a basis to develop a COE.

Types of Service Lines:

Each organization that chooses to use SLM must also decide how it will delineate its service lines. Service lines are usually categorized in the following manner:

Disease (diagnosis) categories

- i.e., cardiovascular, oncology, neurosciences, or orthopedics

Population (age or gender specific)

- i.e., geriatrics, pediatrics, or women's health

Site or nature of treatment

- i.e., acute care, home care, or long term care

Procedural or interventional

- i.e., surgery, emergency care, or medical care. (Birrer et al. 2000, p. 5; The Advisory Board, 2000, p. 2)

Coile (1999a, p. 5) notes that it is necessary to have a critical mass of patients for a service line to be successful. When determining which service lines to initiate the organization will conduct an assessment of the top DRGS or the top revenue producers and align the service lines accordingly. Coile (1999a, p. 6) gave an example in his article in which a hospital in the Midwest targeted the top 38 DRGs and grouped them into eight service lines that comprised over 50 percent of the hospital's patient volume.

Some service lines drive the markets and others are market driven. The market drivers are proactive and create their markets. These are usually the disease or diagnosis type of service lines. The market driven service lines are more reactive to what occurs in the market such as the medical and surgical service lines. It is important to know what the organization is trying to accomplish with the service line model. With this information the CEO then can decide which service lines will be most beneficial to the organization (Goodman and Vernon, 2001, p. 55, 159 - 161; Longshore, 1998, p. 75).

Service Line Structures:

During the research process it has become evident that there are many service line structures that are being used. Most organizations that use service lines use the matrix model. It is rare to see the pure service line model. Charns and Tewksbury (1993, p. 20 - 43) have found that there are nine prototype organizational designs that

start at the basic traditional hospital model, which they have labeled as functional to the fully integrated service line model, which is labeled as program organization in this book. The types are listed in Table 1.

Table 1. Continuum of Organizational Configurations (Charns and Tewksbury, 1993, p. 20 – 43)

<table>
<tr><td>Functional Organization
This is a pure functional organization, which is at the extreme left end of the organizational continuum. The major organizational units in a hospital are departments, which represent different professional and non-professional functions. This type of structure provides no integration of functions to help achieve coordinated comprehensive care. The focus is on outputs only, not programs.</td><td>Strengths:
●Economies of scale by pooling and sharing resources within each function.
●Maximizes focus on professional development and professional standards.
Weaknesses:
●Fragmentation of care due to territorialism from focus on departmental or professional processes independently from other departments or professions.
●Provides no substantial integration for delivery of services across disciplines.</td></tr>
<tr><td colspan="2">Parallel Organizations
Some hospitals have added new roles to traditional departments or added new departments to assist the functional departments. There are five variations of this model. They are listed next from lowest to increasing emphasis on integration of decisions and actions across functional departments.</td></tr>
<tr><td>●Addition of new function
The hospital maintains its functional structure, with the addition of one or more new functions. The organization will still have the strengths and weakness of a functional structure. The specialists, however, are not given responsibilities of any particular program. They may work on specific projects with the departmental managers.</td><td>Strengths:
●The additional capabilities may assist slightly in some integration across departments.
Weaknesses:
●Even with the additional functions the organization is limited in its integrating capacity.</td></tr>
<tr><td>●Direct Contact
These integrative managers are given responsibility for specific programs. They may be marketing specialists, planning specialists, financial specialists, or managers with other responsibilities who assume integrative duties. These integrative managers do not have authority that spans across all of departments and functions that may be affected within the program. The direct contact through their interpersonal skills and influence with clinicians and department managers may help them engage the support needed to accomplish their goals.</td><td>Strengths:
●This method makes more of a statement regarding the organization's support of program integration.
●Whether they start a department of integrated managers or add dual responsibilities to current managers the results will hopefully be more integration of services.
Weaknesses:
●Dual responsibilities can be confusing to some members of the organization.
●This model relies on the manager's skills and personality to influence others.</td></tr>
</table>

●***Task Forces*** Task forces have a limited and relatively short life span. There is better integration here than in direct contact because individuals from different functional departments come together to solve a problem. Their purpose is to support the new program or services. This model can be more threatening than direct contact because there is some loss of control by the functional departments.	**Strengths:** ●There is more acceptance of the program because multiple disciplines are involved in the planning process. ●This causes little disruption to traditional departments. **Weaknesses:** ●The short life span of the task forces doesn't allow on-going management of the service line over time. Limited in ability to coordinate because changes not based on enduring relationships among group members.
●***Dedicated Personnel*** Departments are organized into subunits that are dedicated to certain programs such as nursing units, dieticians, social workers, etc. It also helps when a physician is involved in a program and collaborates in the care. Physicians and nurses work together due to more frequent interactions.	**Strengths:** ●This model provides more integration and thus helps to support the program. ●Patient care is improved because the same staff and physicians care for the same type of patients. **Weaknesses:** ●Not always feasible financially to have dedicated units. ●Also there is less flexibility to respond to workload shifts across the organization.
●***Teams*** This is a stronger variation of a parallel organization. Task forces are changed into permanent teams. This makes the teams more powerful in influencing behavior. This is more costly to the organization due to it permanency. However, the payoff is the focus the team has to the program and the goals it can attain. This does not have to be lead by an integrative manager. There could be a triad approach which would consist of nursing, medical staff and an administrator. This is not a matrix model because the reporting structure is not set-up that way. The managers are still responsible for their individual departments. Decisions are still made through the manager's or leadership teams' ability to influence others.	**Strengths:** ●There are clear lines of authority. ●This model focuses management talents on market objectives and encourages a multidiscipline approach. **Weaknesses:** ●Integrative managers do not control resources needed to deliver service. This model focuses on programs concerns without a direct mechanism for addressing them. ●It increases conflicting demands on functional departments, and it depends heavily on the skills and personal influence of the integrative managers or team leaders.
Matrix A true matrix organization provides balance between the strengths of the program and the functional forms. People and responsibilities are organized in two dimensions simultaneously. A program organization is superimposed on a functional organization. About 15 –20% of the members of the organization are responsible to more than one boss. Influence is usually balanced between the two dimensions. Both bosses participate equally in subordinates' evaluations.	**Strengths:** ●Once consensus is achieved; there is strong commitment from the people involved. ●Its flexibility allows shifts of emphasis as needed. **Weaknesses:** ●There is an increased potential for latent conflict to become manifest in the organization. ●There can be ambiguity in the dual reporting relationships. ●There is increase in the managerial cost of time and personnel. It is difficult to maintain a truly balanced matrix.

Modified Program Organization This is very similar to program organization; however, in order to have similar functions across programs a department may be created to handle organization-wide issues such as in nursing. A nurse executive might be appointed to oversee professional nursing issues to ensure the same nursing standards are met across all programs.	**Strengths:** ●This provides some, functional form, which the organizational program does not. This form helps to ensure professional standards are maintained across programs (i.e., nursing). ●Service line managers control resources required to address the needs of their patients. ●Eliminates fragmentation usually found in functional organizations. **Weaknesses:** ●Like the program organization form it fosters territorialism between programs. ●There is also a reduction in the ability to pool resources.
Program Organization The program organization model (same as SLM) is made up of divisions, which include key personnel to deliver and manage its services. All functions directly involved in providing care for a given program (service line) are contained within the program division. In the pure program or service line, each division is a "mini-hospital". The program manager reports to a senior administrator. Certain services come from a centralized unit such as finance or human resources. This pure form is usually not seen in practice because it is rarely feasible to duplicate all of the functional departments.	**Strengths:** The strengths include: ● a management focus on programs' outputs, ● potential for role flexibility among disciplines, ● increased ease of measuring the costs of each program, ● managerial ability to trade off cost and quality, ● ability to plan the programs' business, ● focus on integrated service delivery, ● potential for resource specialization by program, ● care process efficiencies, ● responsiveness to the market or consumer. **Weaknesses:** ● Reduction in the ability to pool resources, resulting in loss of economies of scale, and reduction in control of organization-wide policies. ● Fostering of territorialism by program which can cause a fragmentation of patient care when a patient needs services from several programs. ● No longer a unified voice for nursing since nursing units are dedicated to programs. Nursing leaders usually strongly oppose this form of organization.

Most organizations that have a service line model use the matrix or modified program model. It is usually difficult to implement a pure SLM model due to costs.

In another article, The Advisory Board Company (2002c, p. 1 – 4) Oncology Roundtable conducted an interview of several health care facilities. During their interviews they found four types of service line models that were being used in practice. These were the facilitated program, the matrix service line, the product line

model, and the stand-alone cancer center. The facilitated program was similar to Charns and Tewksbury's (1993, p. 35 –36) parallel-dedicated personnel organization model. The departments reported through the traditional departmental method. There was no one person responsible for the service line. The matrix system and product line models were described the same as in Charns and Tewksbury's models (1993, p. 38 – 43). The Advisory Board listed the stand-alone hospital in its own separate category. Charns and Tewksbury would have included this model under their program organizational model. The biggest drawback of this model is its lack of economies of scale. This model would be unrealistic for all but the largest of systems. The Advisory Board survey (2002c, p. 3) revealed that the matrix model is the most common model adopted by teaching hospitals, academic centers, and community hospitals (See table 2) for their cancer programs. However, there has been a shift toward the product line model due to its good alignment between responsibility and control over care. However, in practice this model causes political disruption due to the turf issues it raises among programs. Overall the success of the type of model used, relates to the effectiveness of the management process.

Table 2: Interview summary of models used for cancer programs (The Advisory Board Company, 2002c, p – 4)

Program Types	Community Hospital	Teaching Hospital	Academic Center
Number of interview participants	N=21	N=11	N=15
Facilitated Program	15%	11%	27%
Matrix Service Line	50%	64%	40%
Product Line	35%	25%	33%

There are different reporting structures that hospitals use depending on the model they choose and the size of the hospital. In Appendix a there are two examples of service line structures. Figure 1 (Appendix A) is an example of a product or service line reporting structure in a large health system. There is more managerial hierarchy in a large health system. Figure 2 (Appendix A) is an example of a matrix model in a health system. This model has a dual reporting structure.

Charns and Tewksbury (1993, p. 301 - 302) note that central to any framework is the structure of the organization. They state organizations sometimes discount the importance of the organizational reporting structure. However, these mere boxes and lines represent reporting structures that have a major impact on people's interactions and how things get done in the organization. It is imperative that hospital leaders use the organizational structure that will facilitate rather than hinder their employees' efforts.

The organizational structure must reflect the strategy and organizational needs of the hospital (Charns and Tewksbury, 1993, p. 302). Prior to choosing an organizational design, decision makers must consider the rewards, the information system, the selection of integrative managers, and the change process that will be needed to achieve the desired outcomes. There are always advantages and disadvantages to a model. It is important to choose a model in which the advantages will out weigh the disadvantages for the organization.

Regardless of which model is chosen there must be support for the innovative structure from the senior management team. Lack of support from the top will hinder and possibly completely disable the process. According to Charns and Tewksbury (1993, p. 302 – 303) the organizational structure must be used to facilitate integration in management and clinical work. This integration will reduce fragmentation of services. It will also help to gain staff satisfaction by addressing the patients' needs more effectively.

Another important factor is medical staff buy-in into the structure. Hospitals have made operational decisions independent of physicians' input. This is no longer acceptable. According to the Advisory Board Company (2000, p. 5) physicians must be involved not only in the clinical care of patients but also in the management and marketing decisions in order to impact the services provided. Thus, it is imperative that the organizational structure reflects this practice.

Goals of Service Lines:

Since the resurgence of SLM there has been a change in the goals of the service line model. Birrer et al. (2000, p. 3 - 4), Coile (1999a, p. 1), and Gombeski, Dyer, Marino, and Goren (2001, p. 20 –21) noted the following new goals of a SLM model:

- To follow the patient through the continuum of care;
- To have a patient focused approach to care;
- To provide services which are integrated and seamless;
- To improve patient satisfaction;
- To build customer loyalty and word-of-mouth referrals;
- To improve quality of care;
- To reinforce the hospital's mission and strategic plan;
- To identify market growth opportunities;

- To increase revenues by increasing volumes;
- To replace lost revenues due to Balanced Budget Act;
- To take excess cost out of clinical processes;
- To define responsibility, authority and accountability for clinical and financial performance.

Also when establishing a service line it is important to establish both short and long term goals early (Clancy, 2002, p. 25). The overall objective is to monitor the entire service line, rather than related, individual departments.

Factors that Enhance Implementation of Services Lines:

When deciding on whether to use the SLM model, the first step is to conduct an in depth analysis of the organization in its own market (Longshore, 1998, p. 78 – 79; Birrer et al., 2000, p. 4 - 5). Birrer at al. (2000, p 4 – 5) listed nine key issues that need to be addressed before determining an organization's readiness for service line development.

- Is there total buy-in within your organization concerning the service line management concept?
- Which services does the organization provide that are either identifiable to the market or have an identifiable market that can be penetrated?
- Which of these services generate a considerable amount of revenue for the organization?
- What are the costs associated with these services and can they be controlled?
- Are there enough qualified individuals with the organization to become service line managers or will the organization need to recruit?
- Are their organizations within the market area that provide the same type of services and can they be considered competitors?
- How would you rank their performance compared to your organization (better, the same, or worse)?
- Who will be the customers for these service lines?
- Can a marketing plan be developed that will make the service lines attractive to these customers?

Other literature supports the same type of analysis (Charns and Tewksbury, 1993, p. 301-303; Gombeski et al., 2001, p. 20 – 27; Longshore, 1998, p. 75).

Longshore further notes that a true restructuring will affect every hospital worker and patient. It is imperative that the CEO and management team first analyze the specific businesses they want to be in and develop strong strategic plans around the service lines they identify. Based on this information the CEO will know if SLM is feasible for the organization. If the CEO decides to move forward with SLM he/ she can then chose the best SLM structure for the organization (Charns and Tewksbury, 1993, p. 301 – 303).

It is imperative that once the decision is made to move forward with SLM that there be support from all of senior management and the board per Charns and Tewksbury (1993, p. 302). The lack of support would send mixed messages to the staff and is one main reason for a service line model to fail.

Another key factor is the need to delineate clear lines of responsibility, authority, and accountability. If the structure doesn't support the service line manager then it will be difficult for the manager to influence and implement change (Birrer et al., 2000, p. 6 – 7; Charns and Tewksbury, 1993, p. 302). It has also been stated that it would be beneficial if the service line director could report directly to the CEO (Longshore, 1998, p. 78). This is even more essential if the director is a physician.

Physician buy-in and support are essential to service line implementation. In each article that was read this key issue was addressed (Birrer et al., 2000, p. 7 – 8;

Clancy, 2002, p. 25-26; Coile, 1999a, 1999b, 1999c, p. 1-12; Longshore, 1998, p. 72 – 73; Poldeski, 1998a, p. 1, 1998b, p. 1; The Advisory Board Company 2000, p. 5, 2002a, p. 5). Physician support is needed because these individuals drive the referrals and their practice decisions are what influences patient care outcomes. A strong physician champion can help to move patient care initiatives forward.

Berry (1999, p. 1) states that strengthening physician relationships with hospitals remains an ongoing challenge and opportunity for health system leaders. The trend is toward shared responsibility for service line management and the development of true economic joint ventures. For example, Washington University School of Medicine and Barnes-Jewish Hospital realized the need to develop a strategic planning process that involved both institutions and obtained physician input. They developed the Joint Office of Strategic Planning (JOSP). The planning model that was developed allowed the physicians to take a lead in planning the delivery of care and created a competitive position in the market place (Poldeski, 1998a, p. 1). The goal is to help physicians design and deliver "best practice" through the continuous improvement of clinical care, applied outcomes measurement, clinical operational enhancements and financial impact assessment (Poldeski, 1998b, p. 1).

The Advisory Board Company (2000, p. 5 – 6) noted that physicians must be involved in clinical care as well as management and marketing decisions concerning the service line. They also noted that physicians respond better to service line leaders that have a clinical background. However, physicians should not report directly to a

service line director unless he/she is a physician, because they often do not respect non-physicians.

According to The Advisory Board Company (2002a, p. 5) physicians will respond favorably to the administrator's efforts to integrate their input into service line strategic planning as it may help to grow their practice. A main method used to get physician input is through an advisory board. The advisory board can oversee all of the decision-making and strategic planning for the service line, as well as provide opportunities for physicians to lead sub-committees.

Another key factor to success is the ability for nursing not only to be accountable and responsible for the care they provide through the service line, but also to have the same practice standards throughout the organization. When establishing the organizational structure, it is very important to involve nursing in the implementation phase. Charns and Tewksbury (1993, p. 20 - 43) noted that the lack of nursing support could be a real detriment to the success of the service line. In a pure service line or even a modified program, nursing could feel fragmented. A strong nurse executive who has buy-in to the service line concept can make the service line succeed.

Choosing the correct service line manager is also crucial to success for the service line. According to Clancy (2002, p. 25) the service line director should have a solid work history within the specific clinical specialty. Coile (1999b, p. 2) expands this concept even further. He said the service line manager needs a hybrid skill-set that blends management tools with knowledge of the core clinical business.

However, in one profile inquiry of The Advisory Board Company (2001, p. 3) the respondent said the administrator does not necessarily have to have a clinical background. It would, however, be essential that they be well versed in budgetary planning, organizational management, and service line administration.

It is essential that service line managers have real control of their budgets per Coile (1999b, p. 2). The critical success factor for service lines is decision-making authority over its budget. He notes that hospital administrators must be willing to delegate budget authority and bottom-line responsibility to service line managers Coile, 1999a, p. 5 – 6). Birrer et al. (2000, p. 8) confirms this. He states that there is no greater threat to successful service line management than ambiguity concerning the role and responsibilities of the service line manager. The service line manager must be granted authority commensurate with such responsibilities.

The need for information systems to supply data to the service line manager is also a key to success. The service line team must be able to analyze data in order to make changes as needed. Birrer at al. (2000, p. 9 10) found that a decision support system could produce understandable reports for all of the elements of the line. The following information is essential: cost accounting, variance reports, flexible budgeting, reimbursement modeling, clinical productivity, case mix and severity, quality assurance, and marketing management. Equipped with these tools the SL manager can accurately determine the performance of the service line and respond quickly to problem areas. Anderson (1998, p. 23 – 29) notes throughout her article how data is used to make changes in clinical care. She also states that the data is used

to target programs based on demographics. The availability of information is another important key factor for success.

In summary it is important to have buy-in at all levels of the organization in order to have an effective service line. In addition it is essential to have a motivated and qualified director who is both clinically adept and has business savvy. The organizational structure, clearly defined roles, and effective information system are all tools to help the manager succeed.

Factors that Hinder Implementation of Services Lines:

Difficulties in establishing a service line can arise from a number of internal and external forces. Internally there are several factors that were common to hindering the implementation of service line models these are lack of physician support, lack of administrative support, lack of nursing buy-in, lack of correct organizational structure, ambiguity over role delineation, responsibility, and accountability, lack of authority to make necessary changes, and trying to start too many service lines at one time (Birrer et al., 2000, p. 6 – 7; Coile 1999b, p. 2; Longshore, 1998, p. 72 – 79; The Advisory Board Company, 2000, p. 5 – 7).

Without support from physicians it will be difficult to make clinical changes that can improve patient care, have them implement process change that could produce cost savings, and influence other physicians who could affect referrals. In Longshore's (1998, p. 72) article he quotes a health care leader, Fred LaQuinta, "Never before in my career have I spent so much time developing relationships with

physicians…I am convinced that positive relationships with doctors are key to success in today's health care environment".

There are different ways to obtain physician buy-in. They could be made the service line director; be part of the service line advisory team; or engage in a joint venture. It is important to choose the method that would best suit the situation.

Once a CEO decides to implement the SLM model he/she will need to make sure there is buy-in from his/her key players. These include physicians, nursing, the board, and managers. The CEO will also have to develop a structure that will best suit the individuality of the facility and the mission and goals of the organization. During this phase it will be important to clearly define each person's roles and level of authority, accountability, and responsibility.

Another suggestion is to use an incremental approach to SLM (Birrer et al., 2000, p. 6; Longshore, 1998, p. 75). Because conversion to and implementation of SLM are difficult to achieve choosing too many service lines is far more risky than identifying too few. Thus, an organization can begin by defining one strong area of emphasis and implementing this over six to 12 months. The organization can learn from its mistakes and its successes.

Birrer at al. (2000, p. 6 – 7) also lists eight most common external factors that can influence the success of the service line. These are:

- Opening a similar facility or service line by a competitor,
- Loss of a significant third-party,
- Failure to recognize the changing health care needs of the community,
- Unforeseen operational difficulties, such as a breakdown in vital equipment, that force temporary changes in clinical treatment capabilities,

- Loss of key physicians or specialty mix, that reduces volume and procedural intensity,
- Unsuccessful marketing efforts undertaken by the hospital,
- The introduction of alternative treatment practices due to changing technology or medical techniques,
- The availability of alternative treatment settings.

An environmental scan could help identify external factors that could affect the success of the service line. When implementing the SL, the organization could use the environmental scan information to develop strategies, which would offset the negative effects of the external factors.

Lastly, it is important to have a structure that decreases the silo effect that can occur between service lines in this type of model. Each service line will compete for resources and patients. This can cause some duplication and fragmentation of services. Thus, the CEO must have a mechanism to decrease this unhealthy competitiveness to ensure the best care for the patient (The Advisory Board Company, 2002, p. 1; Charns and Tewksbury, 1993, p. 40).

In summary it is essential to know internal and external forces that could affect the outcome of implementing a service line model. It is important to develop a structure that will address as many of these issues as possible.

Chapter 4: Methods

Due to the resurgence of SLM and the somewhat limited amount of information on the topic, especially for smaller community hospitals, the author decided to interview health care executives and consultants throughout the country who have had experience with SLM. The purpose was to gather information to learn more about the current practice of SLM.

First, the author received permission from the Office of Regulatory Compliance at Penn State University to conduct a research project involving human participants. During the application process an informed consent was approved (Appendix B). Also a list of questions that would be discussed during the interview was submitted (Appendix C). To ensure confidentiality of participants the informed consent asked permission from participants regarding the use of their name, title, and organization.

Once the project was approved the author spoke to a consultant with whom she had worked on a previous project, to find health care executives who had experience in SLM. The consultant contacted several health care executives to find out if they were interested in participating in research for a graduate paper on SLM. Five health care executives and the consultant agreed to participate. The other two participants were health care executives whom the author knew had experience in SLM.

Next, the author through either email or via the telephone to identify an available time to discuss the project and obtain his or her informed consent contacted

each participant. Each participant was asked to read the informed consent, sign it, and fax it back to the author. A mutual time was then established for the telephone interview. The interviewees were also given a copy of the questions, which would be asked during the interview.

Before the interview began the author asked the participant again if he or she had any questions about the project. Once the author was assured that all of the participant's questions had been answered then she proceeded with the interview. There were eight participants interviewed. The interviews lasted from 45 minutes to one and a half hours each. There were five males and three females interviewed. Experience of the participants ranged from 10 years to over 30 years. All interviews were completed between April 2, 2002 and April 8, 2002.

The interviewees were from various geographical locations in the country and had various experiences with service lines. Below is a table to briefly summarize their experience. A more detailed account of the interview can be found in Appendix D.

Table 3: Summary of Interviewee Experiences (Appendix D)

Interviewee	Brief Summary of Experience	Table
A	She is currently a consultant with a firm in the Rocky Mountain area. Her specialty is strategic business development for specialty programs. She has been in the health care field for over 25 years. She had previously had experience working in Cardiovascular Centers in the Midwest and Northeast as well as consulting all over the United States for many health care systems.	5
B	The interviewee has been in the health care field for about 20 years. He has been a health care executive for about ten years. He is a Cardiovascular Physician Assistant who branched into management. He was director of a cardiopulmonary program in the Mideast and is currently a hospital administrator for Cardiopulmonary Services in the Mid-Atlantic region.	6

C	The interviewee has been a health care executive for over 20 years. He is currently a COO of a medical group for a health system in the Northeast. He was instrumental is starting the service lines for the same health system. He was the Associate Administrator for ancillary and support departments; with the service line structuring he became the cardiovascular service line administrator.	7
D	This interviewee has over 30 years experience in health care. She has been a health care executive for over 20 years. Currently she is the Director of Cardiopulmonary Services for a system in the North Central region.	8
E	This interviewee has been in the health care field for 25 years. Currently he is the Cardiovascular Services Director for a 687-bed hospital in the Southeastern region.	9
F	This interviewee has been a healthcare executive for over 20 years. She is a cardiovascular clinical nurse specialist, who has served in roles such as Administrative Director and Vice President in Cardiology. She was the Vice President of Cardiology at a Southwestern Health System. She is currently a consultant and her specialty is new program development. She is now working with a two-hospital system in a very competitive market in the Rocky Mountain area.	10
G	This interviewee has been in health care for approximately 10 years. H completed a fellowship for a large health system in the Northeast and the worked as a staff assistant to the CEO of the hospital for three years. He then was a practice manager for an orthopedic group. He is now the cardiology service line administrator for a health care system in the Northeast.	11
H	This interviewee was a teacher then after five years changed careers and went into the health care field**.** He has been in health care for over 15 years with ten of those years as a health care executive. He was the administrator for a system in the Mideast. He is currently the CEO of a Heart & Lung Institute in the Midwest.	12

Chapter 5: Results

In order to maintain confidentiality each respondent was assigned a letter. Throughout this section the interviewees will be referred to by their designated letter. A comprehensive review of the interviewees' responses can be found in Appendix D.

Defining Service Line Management:

Due to the various definitions of service line management, the interviewer asked the interviewees for their definition of SLM. The purpose was to understand if they all had similar views or not. Basically, each interviewee described the concept of service line the same, which is the alignment of similar or like services within an organization to improve patient outcomes, financial performance, and market position. (Appendix D lists each interviewee's response). Interviewee E, however, did differentiate between product line management and service line management. He noted service lines use a matrix organizational structure. However, in the product line there is only one product such as "hearts". All heart services are under one product line and a matrix structure is not used. In the literature, product line management and service line management are considered to be synonymous. In health care the term service line is preferred since health care workers are dealing with people and providing services (Birrer et al., 2000, p. 2 – 3; Longshore, 1998, p. 73). This interviewee's distinction was unique.

Reasons for Service Line Management:

There was consensus about the reasons to implement a service line model. The organizations wanted to position themselves better strategically in their market,

improve their financial outlook, streamline clinical processes, improve patient satisfaction, and improve patient outcomes (see Appendix D).

For example, interviewee A stated that the hospital at which she worked had lost business to competing IDS. The CEO had experience with service lines. He felt this model would help to build their services and make them more competitive. SLM was a strategy that interviewee C's organization used to become an integrated delivery system. They felt it would provide the most successful method of being a leader in their area. In 1995 interviewee D noted their hospital moved to a true service line format to help develop a COE in cardiology. .

Type of Service Lines:

Each organization chose the service lines it felt would be most beneficial for the organization. The following service lines were used in the organizations in which the interviewees worked:

Table 4: Summary of Service Line Types from Interviews

Type of Service Line	Interviewee
Behavioral Health	A, C, G
Cardiovascular	A, B, C, F, G, H
Maternal Child	A, B, C, F, G, H
Medical	C, F, G
Neurosciences	A, C, F, G, H
Oncology	A, B, C, F, G, H
Orthopedics	B, F
Rehab Services	A
Senior Services	B
Surgical	C, F, G
Stroke	H

The most common service lines are cardiovascular, maternal child, neurosciences, and oncology. Some of the organizations started with just one or two service lines and then added others.

Service Line Structures:

Five of the interviewees (A, B, D, E, F, & H) had experience with a matrix service line model. It seemed that the main reason the matrix model was used, was to unify nursing services.

Two interviewees (C & G) had experience with a triad leadership model, which was similar to Charns and Tewksbury's (1993, p. 40 - 41) modified program model. At their organization nursing reported to their respective service line throughout the organization; however, they also had a nurse executive, who ensured that nursing practice was standardized throughout the facility. The clinical directors for each service line reported directly to the service line and had a dotted line relationship to the nurse executive. While this type of model may not be as strong for nursing it provides a unified approach to nursing care.

Two other interviewees (D & F) had experience with a true service line model. However both switched to a matrix model after the initial implementation. The literature review shows that nursing usually feels fragmented in a true service line model. Nursing prefers a matrix model because it standardizes nursing care and provides a unified voice. This is exactly what happened at their hospitals.

In interviewee F's hospital a new V.P. of Nursing was employed after the implementation of service lines. She influenced the physicians to push for a matrix-

reporting model. She was able to accomplish this about two years after the initial implementation of a true service line. According to the interviewee the V.P. of Nursing felt threatened by the model. She was able to convince others that this model was not best for nursing because it fragmented care.

In interviewee D's hospital, service lines were started in 1995. However, they moved away from this concept and went toward a matrix COE reporting structure in 2000. The cardiovascular nursing units felt cut off from other nursing units. There was a liaison between cardiovascular nursing and other nursing areas; however, the cardiovascular nursing area did not feel like a "real part" of nursing. The cardiovascular area used a different nurse-staffing plan than other areas of the hospital. Administration felt the need to pull all of nursing together due to the inconsistencies in practice models throughout the organization. Now the nurse managers of all cardiology units are directly responsible to nursing, however, they participate in the cardiology COE management team meetings.

Goals of Service Lines:

There were several goals of SLM that were reiterated throughout each interview. These included the ability:

- To provide the best coordinated care for the patient;
- To provide a continuum of care for the patient;
- To internally integrate services so they are seamless to the patient;
- To improve patient satisfaction;
- To adapt to the changes in the market more quickly;
- To improve quality of care;
- To develop a multidiscipline strategic plan for services;
- To improve market growth and/or recapture lost market share;
- To increase revenues by increasing volumes;
- To become a Center of Excellence;

- To become an integrated delivery system;
- To streamline clinical processes;
- To become more cost effective.

According to most of the service lines their goals were being met. Three interviewees worked at hospitals that were designated as Top 100 in cardiovascular services.

Factors that Enhance and Hinder Implementation of Service Lines:

Regardless of geographical location and hospital size all interviewees shared similar views and experiences on factors that enhance and hinder the success of service lines. The factors that are important to successful implementation of a service line include (Appendix D):

- Full support from CEO, Senior Management, and the Board,
- Full support from the Nursing Executive,
- Well-defined roles regarding authority, accountability, and responsibility,
- Full authority, accountability, and responsibility for the service line,
- A service line manager who is politically savvy, a good communicator, and a consensus builder,
- Physician involvement as being crucial to the success,
- Leadership training for physicians and team building training for staff and physicians,
- A structure that prevents territorialism among service lines.

During the interviews each respondent mentioned all of these factors during his or her interview as crucial to the successful implementation of service lines. The lack of any of these factors could hinder the process.

Interviewee A noted that there was support for the implementation of service lines at first in the Northeastern Hospital where she worked. However, there were several problems that led to the downfall of the process. First, there were four different service line models that were used in the organization. The goal was to implement a true cardiology service line model and then change the other models to

this type. The CEO hired the service line manager. Four months after this manager was hired the CEO and a Vice President left the organization. There were three CEOs appointed within a very short time. The service line model was not a priority. The service line manager left after three frustrating years.

In the Midwest Hospital where interviewee A worked, the circumstances were different and so were the results. There was full support for the service line from the CEO and board. The service line was successful. The only difficulty here was that the service line manager spent too much time with operational duties and could not focus enough on strategic planning. After two and one half years an operational director was hired for the service line.

Interviewees D and F had difficulty with the nurse reporting structure in the true service line model they used. Due to this problem the true service line model was abandoned in each organization. At the organization where interviewee D worked a true service line model was initiated in 1995. The cardiovascular nursing units felt disassociated from the other nursing units ever since initiation of the SLM. In 2000 a decision was made to move the cardiovascular nursing units back under nursing. In order to keep them involved in the cardiology center of excellence the cardiovascular nurse managers would continue to serve on the cardiology teams.

Interviewee F also worked at a hospital where she was instrumental in starting the cardiology service line. The implementation process went fairly well. Approximately a year after implementation of SLM the Vice President of Nursing left. The new Vice President of Nursing did not feel cardiovascular nursing should be

under the cardiology service line. She felt there should be one nursing department. She was able to lobby the physicians for support and the change was made to move cardiovascular nursing back under the nursing department. The interviewee felt the new Vice President of Nursing felt threatened by the model because she truly did not understand it. Also lack of support from the CEO to keep the SL model enabled the new VP to make the change.

Interviewees C and G worked at an organization that used a triad leadership model. The triad consisted of a service line administrator, clinical administrator, and physician leader. The clinical administrator was responsible to the service line director; however, she also participated in the monthly nurse practice meetings that were held by the Vice President of Nursing. This model worked well for their organization because they could balance the needs of the service line and the needs of nursing. There was very strong support from the CEO for the service line structure.

Interviewee B used a matrix model. Nursing did not report to the service line director, however, he had a solid rapport with the nursing executive. This was an important factor for the service line.

All interviewees except for interviewee A felt that their roles were clearly defined. At the Northeastern Health System where interviewee A worked, the role was not clearly defined, a problem that lead to many difficulties. Each interviewee had responsibility for the overall cardiology service line. Those responsibilities included making decisions that affected both direct and indirect reports. At times there can be difficulties with making changes when it involves indirect reports. All of

the interviewees felt they had a good working relationship with the indirect reports, thus could make the changes necessary.

All interviewees agreed that the service line manager must have authority to make the necessary decisions on a daily basis to adjust to market changes or any other situations as they happen. Only then can a service line manager really be held responsible and accountable for the success of the service line.

Many of the interviewees felt team building and physician leadership development were keys to service line success. Interviewees C, E, F, G' s organizations used consultants to help with this process. Interviewee F noted that physicians are not taught leadership training. The consultants in these organizations helped to develop physician leaders. At interviewee F's facility all physicians had to attend leadership-training classes for three hours per week for six weeks. She said this was very helpful. At interviewee C's facility consultants helped for one and half years to build teams. Their focus was on team building among physicians. Interviewee A also used team-building strategies, however, the organization chose not to use consultants. She noted that if she had to do this over again she would have used consultants because they could have helped accelerate the process.

Another paramount factor to successful service line implementation was physician involvement. This is why so many organizations brought in consultants for physician leadership training and team building. The organizations needed the physicians' buy-in in order to make significant changes to improve processes,

improve patient care, save money, and market their services. This partnering was new to many hospitals and physicians. It was not always an easy accomplishment.

Another key factor to success or failure of the SL consisted of the characteristics of the service line manager. All interviewees agreed this person must be politically savvy, a consensus builder, a good communicator, and good at negotiating. They felt that is was more necessary to have these skills than having a strong clinical background. However, interviewee F felt that physicians tended to respect a person with a clinical background more. All interviewees did not agree.

Lastly, a few interviewees noted that there could be competition among service lines in an organization. This can create silos between programs. Also there can be a duplication of services among service lines. Interviewee G felt it was important to have some healthy competition between service lines so that they all strive to improve, however, they also must work together to enhance the mission of the organization. At interviewee B's organization the CEO has the service line managers meet weekly twice a month. The agenda includes discussion of issues across service lines. They work together to troubleshoot any problems.

Skills that are Necessary for Service Line Managers:

There were many words that the interviewees listed to describe the skills a service line manager must have. The most consistent term used was a good communicator (Interviewees A, B, D, G, H). Many other skills the interviewees listed also had to do with having good communication and interpersonal skills. These included: good negotiator (A, D), politically savvy (B), consensus builder (C),

problem solver (G), good facilitator (E, H), organizer, (H), and a resolver of conflicts (A). All agreed that the service line manager must have the skills for team building. In addition interviewee A and D felt service line managers had to be driven, unselfish, passionate about what they do, and able to give up control. Finally they need to be a visionary (D, H) and have good leadership skills (E).

The Value of Consultants During Implementation:

Consultants were used to support the process. Their main focus was team building and physician training (Interviewees C, E, F, G). Interviewee C also used consultants to help improve clinical performance. Interviewee G was not involved in the implementation of the service line. He said that now consultants are only used for specific projects.

Interviewee A did not use consultants for either hospital system's implementation process. She notes it really would have helped to speed the process and lend support during the implementation phase.

Service Line Management in Smaller Community Hospitals:

Interviewees D, E, F, and G all felt that smaller hospitals could institute service line management. The general concern was over the ability to have specialty units in nursing. If there could not be specialty units then interviewee G felt specialized care could be managed with a clinical nurse specialist for each service line. Interviewee F felt a matrix model would have to be used. He felt that there would be less bureaucracy in a smaller hospital and it would be easier to implement. Most felt the focus in smaller hospitals would need to be on process changes.

Interviewees B and H felt that smaller hospitals could not implement service line models because it would be cost prohibitive, there would be no specialty units, and lastly it could not be a true service line model.

Interviewees A and C felt that it was possible to have service line management, but they felt it would be difficult. Their concerns were related to costs and the lack of nursing specialty areas. Since there are a lot of overhead costs with service line management, interviewee C suggested that one service line manager could possibly run two service lines.

Service Line Management in a Limited Service Hospital:

All but interviewee B and H felt that service lines could exist in a facility that does not offer the full continuum of services. Many interviewees noted that the focus would be on process improvement. The organization would have to have quality programs with good outcomes.

Chapter 6: Discussion

The results of the interviews and literature search were very similar. For instance, each interviewee's definition of SLM was similar to ones provided in the literature search. Only one interviewee noted a differentiation between product lines and service lines.

The interviews matched the literature search regarding the reasons for service line implementation. The foremost reason was the quick response that was needed for changes in the environment. The new model allows for this quick response.

Regarding structure, the matrix model is the mostly favored in the literature search and in practice per the interview results. It seems the most important component of service line structure seemed to be the reporting mechanism for nursing. Nursing preferred to be unified in the interviewees' organizations. Nursing did not prefer to report to the service line director according to most interviewees. In two organizations they started out with nursing reporting to the service line manager and switched them back under nursing. It seemed that the most important point was to have a mechanism were nursing was able to keep current with other nursing departments and also be part of the service line team. This structure is organizational and nurse executive dependent.

The factors that enhance and hinder service line development were the same in the literature search and in practice as noted in the interviews. One important fact stressed more in practice was the need to conduct team building and physician leadership training. The organizations' CEO and Boards knew the need to have both

physician and staff buy-in therefore; they invested in these two training methods to help improve their chance of success.

Additional information that was received from this project was that six out of eight interviewees felt that service line management was possible to achieve in a small community hospital. Consensus was that the organization would need to focus on processes and clinical pathways in order to succeed. Only two respondents felt that service lines would not work in smaller hospitals. Only one article in the literature search said service lines would not work for hospitals with fewer than 200 beds (Longshore, 1998, p. 75).

All but two interviewees felt that a full continuum of care was not needed to start a service line model. The interviewees felt that as long as the focus was on process improvement then the service line could succeed. The persons who felt a full continuum of services were needed felt this way because a true service line model could not be obtained without the full complement of services.

The purpose of the paper was to learn more about what enhances and hinders service line implementation, and if service lines can be used in smaller hospitals and those without a full continuum of care. These questions were answered through the interviews. It must be noted these ideas were based on individual experience and not scientific observation. Another limitation of this study is the relatively small number of interviewees.

Chapter 7: Recommendations

It seems that many organizations use the matrix model. This provides a good mix between functional programs and true integrated programs. It would be good to view more systems that have the modified integrated programs. According to Charns and Tewksbury (1993, p. 39 - 40) this model leaned more towards a true service line. It would be nice to find more hospitals that use this approach and to analyze their success.

Also more research needs to be completed on service line models implemented in smaller community hospitals. What structures work best? What is their feasibility? How can you truly make them work while maintaining economies of scale, decrease fragmentation of care, improve patient satisfaction, and improve outcome management? It would be beneficial if the studies had a more scientific basis so more theory could be developed.

So how do we succeed in health care? I believe Charns and Tewksbury (1993, p. 304) stated it best when they said,

> No single approach is sufficient to bring about all of the changes needed in health care organizations... A multifaceted approach to organizational change is needed to meet the challenges of the 1990s and beyond. Those leaders who recognize the complexity of health care organizations, who have the vision to empower their staff and employees, who have sound management concepts to guide them, and who are able to work with ambiguity, rather than deny its existence, will have the greatest success. Changes in health care are too complex to be accomplished by individuals working alone. Integrative efforts are essential to meet the challenges ahead.

In conclusion it is essential we find a method to integrate services with each organization so we can respond quickly to the changes that are needed.

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The Advisory Board Company. (2002c). In search of optimal service line structure. Washington, DC: Author.

Appendix A

Organizational Structures

Figure 1: Health System Product Line Organizational Structure (The Advisory Board, 2000, p. 4)

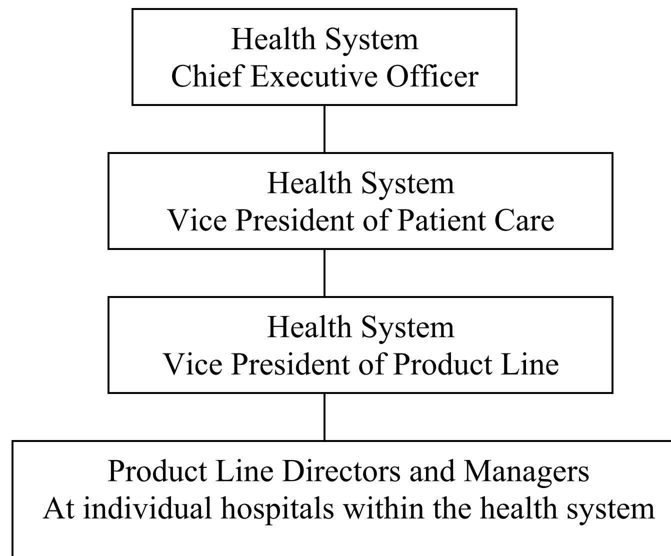
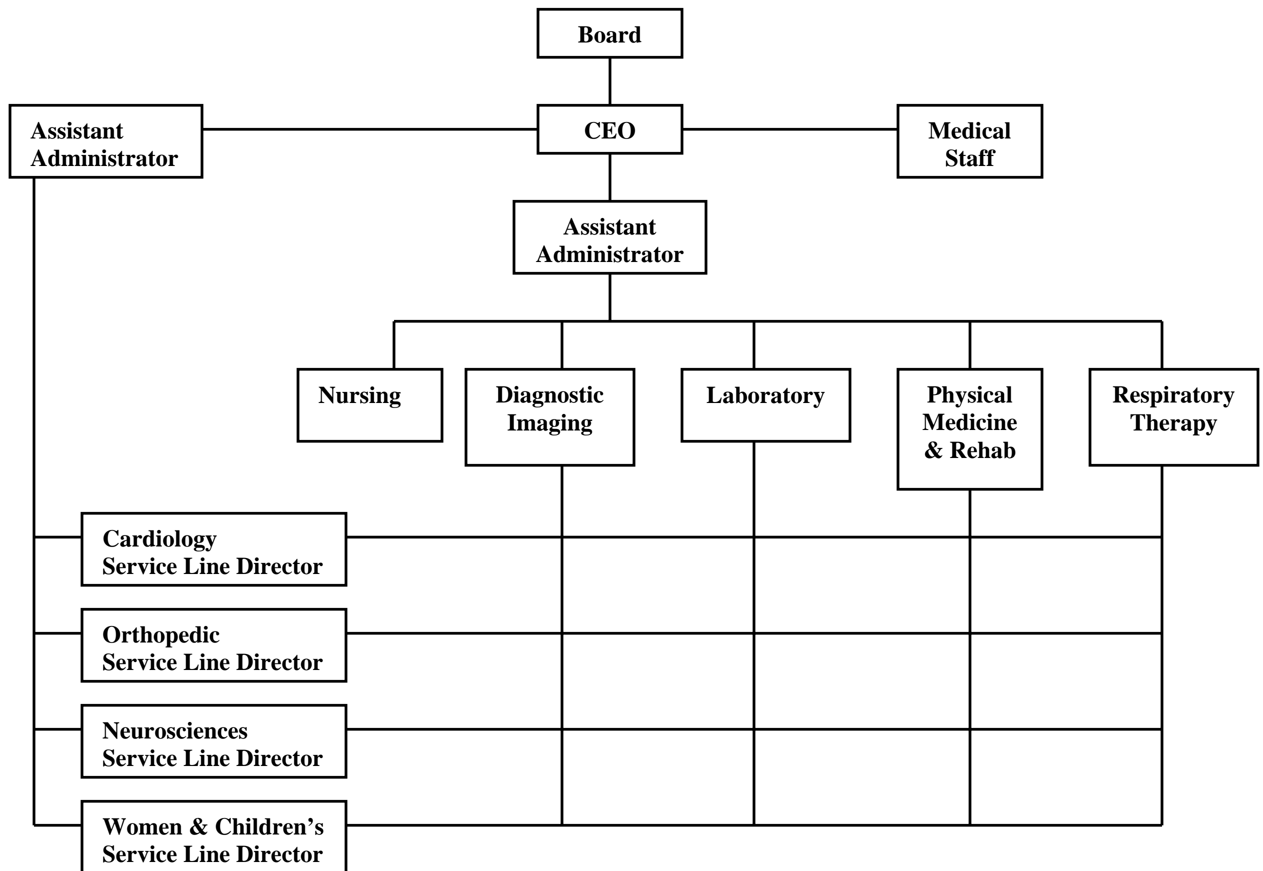


Figure 2: Matrix Organizational Structure (Adapted from: Griffith, 1987, p 132)



Appendix B

Informed Consent Form

INFORMED CONSENT FORM FOR BEHAVIORAL AND SOCIAL SCIENCE RESEARCH
The Penn State University

Title of Project: Service Line Management as a Health Care Management Tool
Principal Investigator: Kathy A. Miller
75 Piper Drive
New Oxford, PA 17350
717-633-2036 (w)

This section provides an explanation of the project in which you will be participating:

A. This purpose of this study in which you are participating is to understand the role of service line management in regards to health care management. The goals are to learn about the factors that enhance and hinder the implementation of a service line management model.

B. If you agree to participate in this study you will be asked a number of questions in a telephone interview regarding service line management.

C. Your participation will take approximately 30 minutes.

This section describes your rights as a participant:

A. The purpose of this study and your role will be explained. You may ask any questions about the study procedure and these questions will be answered. Any further questions should be directed to Dr. Cynthia Mara at 717-948-6226.

B. In the final report, and to ensure the right to confidentiality, it is important to know if it acceptable to use your:

Name ______Yes ______ No
Title ______Yes ______No
Organization's name ______Yes ______No

C. Your participation is voluntary. You are free to stop participating at any time or to decline to answer any specific questions without penalty.

This section indicates that you are giving your informed consent to participate in this project:

Participant:
I agree to participate in the study, *Service Line Management as a Health Care Management Tool*, as an authorized part of the research program of Penn State University. I understand the information given to me and I have received answers to any questions I may have had about the study. I understand and agree to the conditions of this study described. I understand that I will receive no compensation for participating. I understand that my participation in this study is voluntary and that I may withdraw from this study at any time by notifying the person in charge. I am 18 years of age or older. I understand that I will receive a signed copy of this consent form.

___________________________ ______________
Signature Date

Researcher:
I certify that the informed consent procedure has been followed and that I have answered any questions from the participant above as fully as possible.

_____________________________ _______________
Signature Date

Appendix C

Approved Questions

Service Line Management as a Health Care Management Tool
Interview Questions

Contact Person: Kathy A. Miller
75 Piper Drive
New Oxford, PA 17350
717-633-2036 (w)
millerk@hanoverhospital.org

Demographics:
Name:
Title:
Organization:
Address:

Phone:
Fax:
Email:

If interviewee is a Health Care Manager:
Describe your organization:
Number of Beds
Location – Rural, urban, suburban, etc
Is your facility part of a Health Care System? Which system?

How many years have you been in health care management?

What type of management models have you worked with?

Have you used a Service Line Management model?

What is your definition of Service Line Management?

How many years have you used this model?

Were you involved with the implementation process?

If yes:
- What factors enhanced its implementation?
- What factors hindered its implementation?
- Were consultants needed to help work through the process?
- How long did the process take before managers felt comfortable with this type of model?

If not:
- What factors continue to enhance the process/ progress?
- What factors hinder its process/ progress?

Which services use the Service Line Management model?
(i.e., Cardiovascular, Neurosciences, Maternal/ Child, etc)

Has one Service Line been more successful than others?
Why or why not?

If interviewee a Consultant:
Describe your organization:
What type of management models have you helped to implement?

Which models tended to be most successful?

How much experience have you had with implementing a Service Line Management model?

During the implementation process -

What factors enhanced its implementation?
What factors hindered its implementation?
Are consultants usually needed to work through the implementation process?
Why or why not?

Which types of services have used this model?
(i.e., Cardiovascular, Neurosciences, Maternal/ Child, etc)

Has one Service Line been more successful than others?

Has success been more organization dependent or specific services dependent?

Can smaller community hospitals be successful using the Service Line Management model?

Do they have to offer the full array of services to be successful? (i.e., open heart surgery versus diagnostic catheterization only?)

Appendix D

Interview Summaries

TABLE 5: Interview A

Experience:	She is currently a consultant with a firm in the Rocky Mountain area. Her specialty is strategic business development for specialty programs. She has been in the health care field for over 25 years. She had previously had experience working in Cardiovascular Centers in the Midwest and Northeast as well as consulting all over the United States for many health care systems.	
	Midwest Health System	**Northeast Health System**
What is service line management?	A group of similar services across a continuum of care, which is organized in a fashion that improves clinical and financial outcomes.	
How would you describe the health system(s)?	The hospital in the Midwest was about 500 beds. It was part of an integrated delivery system (IDS) that served 27 counties. This IDS was the result of a merger of two competing hospitals in the same city. The interviewee was involved in the implementation of the first service line in the IDS. The impetus for the switch to a service line model was to regain business that was being lost to another IDS in another city. The COO (Chief Operating Officer) at the time had experience with service line management. He felt this approach was needed to build the service and be competitive.	This two-bed hospital system was located in the northeast. The one hospital was also about 500 beds. It was part of an integrated delivery system. Since the interviewee left the system has acquired a third hospital. This system had three other service line structures. The Vice President in charge of cardiovascular services brought in a SL (Service Line) manager to model after other service lines. The problem was there were three different structures already in place. There was not consistent buy-in across the organization for service lines.
Which Service Line Structure was used?	Matrix System Cardiology Director reported to COO Cardiology Director had an indirect relationship with VP of Nursing	Four different models were used. • Behavioral health – comprehensive & complete responsibility • Maternal/Child – marketing position only • Neurosciences – matrix and focused internally not externally • Cardiovascular – matrix model.
Which areas were you directly responsible for?	Non-invasive diagnostic, Cath Lab, and Open-Heart Surgery.	Non-invasive diagnostic, vascular lab, cardiac cath, cardiac rehab. Matrix responsibilities for open heart surgery and vascular surgery.

What were you accountable for?	Budget, P& L, marketing, and strategic planning for the above areas and physician recruitment.	Budget, marketing, and planning. Role was not clearly defined and there wasn't real buy-in from the staff.
What Factors Enhanced Implementation?	Full support of COO and the Board. Also had full authority, accountability, and responsibility for Service Line. Prior to implementation responsibility and accountability were well defined. It was made part of the organizational culture. Focused on teambuilding during implementation. Had a team celebration the night before the center opened.	At first there was backing from administration, but later this changed once CEO left. The impetus was to use the cardiovascular service line model as a model for the other service lines.
What factors hindered implementation?	Timeframe was very tight since she had to hire a Medical Director and staff. Also had to build the area and order all equipment.	The CEO and Vice President of Planning hired the service line manager. After the SL manager was there four months the CEO and VP left the organization. There were three CEOs in a short time. There was no consistency in the executive branch. There was no consistent service line model in organization.
What factors continue to enhance or hinder the process?	It became apparent that the director needed someone to focus on internal operational issues and someone to focus on external issues. Approximately two and a half years after implementation a Director of Operations was hired. This person reported to the Director of Cardiology Services.	Service line model was abandoned once physician CEO hire. He was more departmentally focused.
Were consultants used?	No consultants were used. This would have helped to expedite the process.	No
What other service lines are in the organization?	Following the implementation of cardiac, rehabilitation, women's services, and cancer.	Behavior Health Maternal/ Child Neurosciences
Has one service line been more successful than another?	All equally successful.	Yes. This was due to structure and the leader of the service line.
Has success been more organizational dependent or specific services dependent?	There are two main factors. Senior management and the board must embrace the concept and the service line manager has to be very dynamic and have excellent communication skills. Thus it depends on the skills of the CEO and the SLM.	
What skills are necessary for a Service Line Manager/Director?	Must be a passionate about the services they provide. Must have an extremely high level of communication skills, negotiation and conflict resolution skills. Must have team building skills.	

Can smaller community hospitals be successful using the SL model?	There are obstacles in implementing a service model in a small hospital. The first is that there are no distinct nursing units dedicated to that specialty. The SL manager must be able to work well with multiple disciplines to accomplish service line goals. A service line model should not be considered for a specific disease entity unless the service group brings in at least 20% of the admissions.
Does the health system have to offer a full continuum of services to be successful?	No it is not necessary to offer the full spectrum of services. It is more important for the SL manager to organize the services that are offered and have them grow.

TABLE 6: Interview B

Experience:	The interviewee has been in the health care field for about 20 years. He has been a health care executive for about ten years. He is a Cardiovascular Physician Assistant who branched into management. He was director of a cardiopulmonary program in the Mideast and is currently a hospital administrator for Cardiopulmonary Services in the Mid-Atlantic region.
	Mid-Atlantic Health Care System
What is service line management?	"A service line is when you pull like patients that require like services within an organizational structure to get the best coordinated care for the patient" A true service line has one administrator that has full and direct responsibility, accountability, and authority for all of the services for a specific disease or population. "The number one reason a "true" SL is not developed is because nursing administration is not in favor of service lines. This is very difficult to achieve and is not always affordable. Examples of "true" SL models: Cleveland Clinic, Duke, Orlando Hospital System, Mid-Atlantic System, St. Vincent's, Indianapolis, Columbus-Riverside, etc."
How would you describe the health system(s)?	The not-for-profit health system where he currently works has 963 beds between two hospitals. It is part of a larger network that consists of 14 other health care organizations. The network is a strategic partnership that covers four counties. It is an integrated health care network that is able to provide quality comprehensive care in a dynamic health care environment.
Which Service Line Structure was used?	The system has a matrix service line. All report to the administrator except nursing, marketing, and finance. Also there is a Director of Planning and Strategy that assists the service lines. "The indirect reports are upset with me more than direct reports. Even though I am more demanding on the direct reports and easier on the indirect reports."
Which areas were you directly responsible for?	All report to the administrator except nursing, marketing, and finance. The administrator has a solid rapport with nursing executive.
What are you accountable for?	"I am accountable for moving the cardiopulmonary service line forward.
What factors enhance implementation?	• The CEO must believe in the SL model. The CEO and Nursing VP are the two most important people that can make or break the service line. A "true" service line won't work without them on board. • Need a good administrator that is politically savvy. • Need physician involvement. • To prevent silos all SL managers meet every other week they alternate between two meeting agendas. One meeting consists of SL managers only and they discuss happenings in each service line and crossover services. The next meeting Senior Administration and SL managers meet to discuss marketing and strategic issues.

What factors hinder implementation?	• Lack of support from CEO and VP of Nursing. • Nursing is usually resistant to the SLM because in a “true” service line nursing is not in one department. Nursing units are responsible to their respective service line. • Having responsibility without authority. • Lack of buy-in from key cardiologist.
What factors continue to enhance or hinder the process?	• The administrator’s ability to work in multidisciplinary teams. • The support that is provided from senior management. • Having key physician champions has been a real benefit.
Were consultants used?	Already established prior to coming there, so not sure if a consultant was used.
What service lines are in the organization?	Cardiovascular, orthopedics, oncology, women’s services, and senior services.
Has one service line been more successful than another?	No really answered. He noted that SL could be a problem if silos are created. Silos are created due to competition for resources. In this instance service lines do not pull together to help with the mission of the organization.
Has success been more organizational dependent or specific services dependent?	Probably more organizational dependent. Administration is behind the service line endeavor. Success is often based on the longevity of the administrator, the physician champions, and a good administrator, also some luck. If the main competitor loses the managed care contract and you pick it up. Good for you!
What skills are necessary for a Service Line Manager/Director?	Must be politically savvy. Must be good at communicating across multiple disciplines.
Can smaller community hospitals be successful using the SL model?	No, small hospitals are not large enough to provide true service line management. It is cost prohibitive.
Does the health system have to offer a full continuum of services to be successful?	Yes, they need to be large enough to provide a full continuum of care in the “true” service line model.

TABLE 7: Interview C

Experience:	The interviewee has been a health care executive for over 20 years. He is currently a COO of a medical group for a health system in the Northeast. He was instrumental is starting the service lines for the same health system. He was the Associate Administrator for ancillary and support departments; with the service line structuring he became the cardiovascular service line administrator.
	Northeast Health System
What is service line management?	He wrote a white paper on this topic. Service lines focus around a disease entity. The purpose is internal integration of services for external adaptation to the market. This will ideally create momentum.
How would you describe the health system(s)?	At the time the health system had one 500-bed hospital in its system along with a medical practice group, health plans, VNA services, several joint ventures, and other care facilities. The system has now expanded to include another hospital, 31 ambulatory care and outpatient centers, an expanded medical group, a PPO (preferred provider organization), and VNA services.
Which Service Line Structure was used?	A triad leadership model was initiated. This blends the skills of the administrator, clinical care manager, and medical director. They are all responsible for the performance of the service line. In addition one of them had the added responsibility of being the Service Line Director. In cardiology the administrator is the service line director. In all other service lines the medical director was a hospital employee and served in the role of service line director. The cardiology structure was different for several reasons. • It would not have worked to have the cardiologist or cardiac surgeon a head of the service line. It would have been difficult to achieve consensus. • Both were private practice groups, so each had their own agenda. • The administrator was a hospital employee. This person could facilitate consensus decision-making.
Which areas were you directly responsible for?	The SL director was directly responsible for the Open-heart ICU, Cardiac OR, CCU, cath lab, non-invasive studies, and cardiac nursing floor – telemetry. However, the staff of the functional departments related to the service line in one of three ways – decentralized, mixed, or centralized. For example, finance and marketing were centralized. A person reported to their respective areas but they were also assigned to the service line. Nursing was decentralized. Nursing units were assigned to their respective service line. Pulmonary was mixed. Some therapists were hired for the open-heart area and some were hired into the respiratory department and provided treatments on the cardiac floors as well as throughout the hospital.
What were you accountable for?	The service line director was held accountable for the full service line: P & L, budget, marketing, patient satisfaction, and outcomes management. The SL director used consensus building. If there was no consensus then the project did not move forward.

What Factors Enhanced Implementation?	• The concept of service line management was embraced from the top. There was full support for this culture shift. • Staff was educated about service lines. • There was dissatisfaction for status quo, thus there was impetus to move forward. There was a desire for change because outcomes were not optimal. • Nursing is a pivotal player in assuring service line success. Nursing must have buy-in to the service line model in order for it to work. In this organization the VP of Nursing meets weekly with the clinical directors of the service lines. This helps prevent fragmentation of nursing services.
What factors hindered implementation?	• One service line in the organization had a real disagreement between the medical director and private doctors in town. • The cardiovascular service line really did not have problems. • Physicians are not taught leadership behavior. Their background is scientific and logic. This can cause difficulties. It did cause some problems. A consultant helped facilitate the change.
What factors continue to enhance or hinder the process?	The agreement to have consensus among the surgeons, cardiologists, administrator, and clinical administrator before they move forward with a project has been the key to the cardiovascular service line's success.
Were consultants used?	Yes. One consultant was used to improve clinical performance and another for team building skills. The team-building consultant focused on the relationship between the cardiac surgeons and the cardiologists. The consultant worked with the health system for one and a half years. He focused on issues not personalities.
What other service lines are in the organization?	They started with five. Cardiovascular, oncology, behavioral health, medical, and surgical. Since the initial inception of service lines, the women and children's service line was added. Behavioral health was changed to behavioral health & neurosciences.
Has one service line been more successful than another?	It would depend on what you met by success. Each has their own challenges and their own successes. They have set-up goals and were able to reach them, thus I would consider them successful.
Has success been more organizational dependent or specific services dependent?	Success has been organizational-wide. Some services have moved forward quicker than others toward their goals.
What skills are necessary for a Service Line Manager/Director?	The administrator must be a consensus builder.
Can smaller community hospitals be successful using the SL model?	It would be tougher to institute a service line in a smaller hospital. The most difficult part would be nursing. It is difficult to have dedicated beds to a service line in a smaller hospital. There would need to be a good working relationship between the service line director and the director of nursing. The cost effectiveness would also have to be determined. Could the service line manager handle two service lines versus one?
Does the health system have to offer a full continuum of services to be successful?	No. The purpose would be to streamline processes to improve patient care and to allow quicker response to the external environment.

TABLE 8: Interview D

Experience:	This interviewee has over 30 years experience in health care. She has been a health care executive for over 20 years. Currently she is the Director of Cardiopulmonary Services for a system in the North Central region.
	North Central Health System
What is service line management?	Service Line Management is an organizational structure that accounts for all aspects of the service line. Service lines are usually disease or population specific.
How would you describe the health system(s)?	This health system is in the north central area. The system is a result of a merger of two hospitals over 13 years ago. The hospital the interviewee works for does not use service lines. The health system's focus has been on Centers of Excellence.
Which Service Line Structure was used?	Not used. The organization decided on a format that would allow them to develop a Center of Excellence. The structure was just like a "true" service line structure when first implemented in 1995. The cardiac nursing units reported to the cardiovascular director. However, in 2000 the nursing units were moved back under nursing. The cardiovascular nursing units felt cut off from other nursing units. There was a liaison between nursing and the cardiovascular nursing units; however, nursing did not feel like a "real part" of nursing. The cardiovascular nursing units used a different staffing model than the rest of the hospital. It was felt that the nursing director needed to pull all of nursing together because there was an inconsistency in nursing models and delivery of care. Nursing is now matrixed into the Center of Excellence model. The nurse managers of all units caring for cardiac patients are members of the COE Director's management team and sit on all relevant committees.
Which areas were you directly responsible for?	Responsible for invasive cardiology, non-invasive cardiology, perfusion services, Bloodless Medicine and Surgery Program, electrophysiology, cardiac rehab, lipid clinic, exercise facility, community education, stroke rehab, complementary medicine, telemetry, cardiac nursing units (until 2000), pacer clinic, and support services.
What were you accountable for?	Accountable for P & L of the above areas (except nursing since 2000), strategic planning, budget, marketing, community outreach, and daily operations.
What factors enhanced implementation?	NA. Do not use service line model.
What factors hindered implementation?	NA. Do not use service line model.
What factors continue to enhance or hinder the process?	NA. Do not use service line model. Consistency of same model in organization is essential. For instance, if two areas use service lines and the others are traditional department structures it is very difficult to function organization-wide. Some in the organization then feel that the two service line areas get preferential treatment. This can cause problems. Physicians like a service line model because they have one person to go to when there is a problem.

Were consultants used?	NA. Do not use service line model. Consultants were used to establish the model for Center of Excellence.
What other service lines are in the organization?	NA. Do not use service line model.
Has one service line been more successful than another?	NA. Do not use service line model.
Has success been more organizational dependent or specific services dependent?	NA. Do not use service line model.
What skills are necessary for a Service Line Manager/Director?	A SL manager must be- • a good negotiator • a good communicator • unselfish and driven • a visionary.
Can smaller community hospitals be successful using the SL model?	Yes, if the culture of the institution is such that it can centralize accountability in a single person as opposed to the traditional silo model.
Does the health system have to offer a full continuum of services to be successful?	No, but it needs to offer a core of the services to assure good outcomes to all patients. A cardiac program does not need to do heart transplants, but it has to offer the full range of services that are considered state of the art and cover modalities with proven efficacy.

TABLE 9: Interview E

Experience:	This interviewee has been in the health care field for 25 years. Currently he is the Cardiovascular Services Director for a 687-bed hospital in the Southeastern region.
	Southeastern Health System
What is service line management?	The interviewee differentiated between product lines and service lines. Service lines are when all common services for a specific disease are brought together. Usually a matrix model is used. In the product line there is only one product, for example hearts. All services are under one umbrella and not a matrix structure.
How would you describe the health system(s)?	The hospital the interviewee works for is one of eleven in the health system. The hospital's own health care system merged with two other health care systems in 1997 to form the area's only community-owned health care network. The hospital was named one of the top 100 cardiovascular hospitals in the country by HCIA-Sachs for two years in a row. The hospital's goal was to work toward four COEs.
Which Service Line Structure was used?	A matrix model was used. There is one nursing department which Has a matrix reporting structure to each C.O.E. The director is responsible for all aspects of cardiology services. There is an indirect reporting structure to nursing.
Which areas were you directly responsible for?	He is responsible for non-invasive and invasive cardiac procedures and therapies.
What were you accountable for?	The above areas for P & L, budget, outcomes, and patient satisfaction.
What factors enhanced implementation?	• The CEO who came in 1989 was a real proponent of Deming's TQM (Total Quality Management) concepts. He expanded this into the service lines two create centers of excellence. • Must continually drive home the message that we are the "sum of the whole". We are a team!
What factors hindered implementation?	• The lack of support from top down will hinder the process. • The physicians must be on board and be part of the team.
What factors continue to enhance or hinder the process?	It took a two to four-year process to really have everyone embrace the concept. During this time some "bad apples" had to be weeded through.
Were consultants used?	Yes. Consultants helped to support the process. They helped a lot with team building and developing physician leaders.
What other service lines are in the organization?	There are four centers of excellence: cardiology, women's health, oncology, and imaging.
Has one service line been more successful than another?	Cardiology is pretty special at this facility.
Has success been more organizational dependent or specific services dependent?	Success has definitely been more organizational dependent. The structure at the organization enables the product line manager to provide leadership for the product line. For instance, I am responsible to provide leadership for Cardiovascular Service development in a shared process improvement environment with surgery, nursing, marketing, finance, and medical staff.

What skills are necessary for a Service Line Manager/Director?	Leadership skills Good facilitator Good interpersonal skills “Esprite de corps”
Can smaller community hospitals be successful using the SL model?	Yes. You focus on process. There is not as much bureaucracy in a smaller hospital.
Does the health system have to offer a full continuum of services to be successful?	No.

TABLE 10: Interview F

Experience	This interviewee has been a healthcare executive for over 20 years. She is a cardiovascular clinical nurse specialist, who has served in roles such as Administrative Director and Vice President in Cardiology. She is currently a consultant and her specialty is new program development. She is now working with a two-hospital system in a very competitive market in the Rocky Mountain area.	
	Southern Rocky Mountain Health System	**Southwestern Health System**
What is service line management?	The alignment of services around a specific population.	
How would you describe the health system(s)?	This is a two-bed health care system that also has multiple outpatient centers, a primary healthcare network, home health services, and community education programs.	This is a not-for-profit health system that consists of eight hospitals, multiple outpatient facilities, a health plan, and physicians group.
Which Service Line Structure was used?	Currently developing.	A "true service line structure. All services reported to the Administrative Director of the Heart program.
Which areas were you directly responsible for?	Currently developing.	Responsible for invasive and non-invasive cardiac tests, open-heart surgery, and cardiac nursing units.
What were you accountable for?	The cardiology service line once it is developed.	Strategically responsible for anything that touched heart services.
What factors enhanced implementation?	Had physician resistance right from the start. Now after three months all physicians are on board. The process will now begin.	• It was a board decision to use service line management. • Physicians had to attend leadership-training classes three hours per week for six weeks. • Developed a business plan, set goals for outcomes, and held people accountable for outcomes. Responsibilities were well delineated. • There was agreement of the model. It consisted of a heart council, the medical director, the administrative director, and the COO as needed. • Involved medical staff & hospital staff from the beginning. • SLM needs to have a multidisciplinary approach to problem solving and

		care.
What factors hindered implementation?	NA	It moved forward. Most resistance was from nursing.
What factors continue to enhance or hinder the process?	NA	A new Vice President of Nurses was hired. She was against the service line model. She was able to convince the physicians it wasn't best. The service line then fell under the Vice President of Nursing. It wasn't really a service line any more.
Were consultants used?	She is the consultant. More may be needed.	Consultants were used for leadership development and team building.
What other service lines are in the organization?	There are seven: cardiovascular, orthopedics, neurosciences, oncology, women & child, medical, and surgical.	There were five service lines: cardiovascular, orthopedics, women & children, surgery, and neurosciences.
Has one service line been more successful than another?	The plan is to focus on a few of the service lines and make them a center of excellence.	Service lines were stopped after new Vice President of Nursing came. So lack of message from top down once new person was there and lack of buy-in from nursing, was the downfall of the SLM model.
Has success been more organizational dependent or specific services dependent?	Probably organizational dependant at first.	Not successful.
What skills are necessary for a Service Line Manager/Director?	• Must have good people skills. A personality that is attracted to do this type of work is essential. • A MBA type does not usually work well with physician groups. Their skills must enable them to work well with physicians and physicians take ownership in the process. • The person must be able to give up control.	
Can smaller community hospitals be successful using the SL model?	Yes, a service line can be successful; in a small hospital, but it will be a matrix model.	
Does the health system have to offer a full continuum of services to be successful?	She felt that a full continuum of services was not needed to have a service line.	

TABLE 11: Interview G

Experience	This interviewee has been in health care for approximately 10 years. H completed a fellowship for a large health system in the Northeast and the worked as a staff assistant to the CEO of the hospital for three years. He then was a practice manager for an orthopedic group. He is now the cardiology service line administrator for a health care system in the Northeast.	
	Northeast Health System A	**Northeastern Health System B**
What is service line management?	SLM is the grouping of like patient care services aimed at improving the health of people with defined conditions. The focus is on health care needs. The SL is defined by the needs of the patients.	
How would you describe the health system(s)?	When the service line model was first initiated there was only one hospital in the health system as well as a medical practice group, health plans, VNA services, several joint ventures, and other care facilities. The system has now expanded to include another hospital, 31 ambulatory care and outpatient centers, an expanded medical group, joint ventures, a PPO (preferred provider organization), and VNA services.	This is one of the largest not-for-profit integrated health care delivery systems (IDS) in the US. It includes, 19 hospitals, more than 5,000 physicians, more than 65 hospital and outpatient rehab facilities, eight skilled nursing units, 12 free standing facilities that offer assisted living and skilled nursing options.

Which Service Line Structure was used?	A triad leadership model was initiated. This blends the skills of the administrator, clinical care manager, and medical director. They are all responsible for the performance of the service line. In addition one of them had the added responsibility of being the Service Line Director. In cardiology the administrator is the service line director. In all other service lines the medical director was a hospital employee and served in the role of service line director. The cardiology structure was different for several reasons. • It would not have worked to have the cardiologist or cardiac surgeon a head of the service line. It would have been difficult to achieve consensus. • Both were private practice groups, so each had their own agenda. • The administrator was a hospital employee. This person could facilitate consensus decision-making.	There was only one service line in the entire IDS. It was in oncology services. The administrator of the Cancer Institute reported to health system CEO and was an employee of the health system, not a hospital employee.
Which areas were you directly responsible for?	The SL director was directly responsible for the Open-heart ICU, Cardiac OR, CCU, cath lab, non-invasive studies, financial person, and cardiac nursing floor – telemetry. The Cardiac Nursing Director also meets with the Director of Patient Care Services weekly. This type of indirect reporting system ensures continuity of nursing care system-wide.	The SL director was responsible for all for the institute, which included therapeutics, medical, surgical, and ancillary services.
What were you accountable for?	The service line director was held accountable for the full service line: P & L, budget, marketing, patient satisfaction, and outcomes management.	The SL director was held accountable for P & L, budget, outcomes, patient satisfaction, and marketing.
What Factors Enhanced Implementation?	Not present when implemented.	Not present when implemented.
What factors hindered implementation?	Not present when implemented	Not present when implemented.

What factors continue to enhance or hinder the process?	The focus has been on health care needs. This idea along with consensus among the surgeons, cardiologists, administrator, and clinical administrator before they move forward with a project has been the key to the cardiovascular service line ‘s success. Now with the addition of a second hospital, we will need to create a single standard of care across the health system within each service line. There will probably be some physician control issues at the newer hospital. Their facility is composed of internal medicine physicians and family practitioners that service the cardiac population.	There is only one service line in the whole system. It is like an albatross. The other departments in the IDS have a traditional hospital structure. This is very confusing and not effective organizationally.
Were consultants used?	Consultants were used when the service line concept was first introduced. Now they are used as needed for specific projects.	Not sure
What other service lines are in the organization?	There are six, Cardiovascular, oncology, behavioral health & neurosciences, women & children’s, medical, and surgical. There is an ED trauma pseudo service line that falls under the direction of the surgical service line.	None
Has one service line been more successful than another?	It depends on how you define success. The cardiovascular service line generates a lot of revenue for the system so it is important to support those services, which bring in revenue. However, it is important to also provide other service lines even if they don’t make as much in revenue. Each service line has been successful in different ways. They have set their own goals and accomplished them.	NA
Has success been more organizational dependent or specific services dependent?	The success has been more organization-wide. The whole system has benefited from service line management.	With the existence of one service line and the rest of the organization having a traditional model, the success has been limited.
What skills are necessary for a Service Line Manager/Director?	The person must be a good communicator. They have to have good problem solving skills.	
Can smaller community hospitals be successful using the SL model?	It is feasible to have a service line model in a smaller community hospital. Success would depend on structuring of the service line. Especially with the nursing component since there are limited nursing beds it would be necessary to have a cardiovascular nurse clinical specialist.	

Does the health system have to offer a full continuum of services to be successful?	No. However, it is important to provide consistent quality care. If you could not influence the delivery of care with pathways then the service lines would not be successful.

TABLE 12: Interview H

Experience	This interviewee was a teacher then after five years changed careers and went into the health care field**.** He has been in health care for over 15 years with ten of those years as a health care executive. He was an administrator for a health system in the Mideast. He is currently the CEO of a Heart & Lung Institute in the Midwest.	
	Midwest Health System A	**Mideast Health System B**
What is service line management?	The alignment of similar clinical programs across a continuum of care for a specific disease population. This included strategic planning, marketing, operations, business development, budget, and P & L.	
How would you describe the health system(s)?	This integrated delivery system consists of eight acute care hospitals.	This integrated delivery system consists of 11 hospitals, two rehab centers, and two senior centers, and many outpatient facilities.
Which Service Line Structure was used?	The core of cardiac services was under direction of the service line administrator.	He reports to the president of the hospital, the president of the hospital reports to the CEO of the health system. A matrix model is used. Nursing reports to nursing.
Which areas were you directly responsible for?	Invasive and non-invasive tests and procedures, cardiac rehab, cardiac nursing floors, research, cath lab, surgery, and open heart. Dotted line reporting to marketing, finance, and human resources.	Responsible for invasive and non-invasive cardiology, respiratory therapy, education, cath lab, lung cancer program, research and technology.
What were you accountable for?	The budget, operations, strategic planning, P & L, and marketing.	Accountable for the P & L, budget, strategic planning, patient satisfaction, outcomes, and marketing.
What factors enhanced implementation?	The staff embraced the service line concept. It was a seamless transition from centralized to decentralized structure. It helped increase morale. The staff was committed to the goals. They felt they had input. Able to focus staff on goals. The health system CEO and the board were committed to service lines.	Already existed.
What factors hindered implementation?	There were some internal turf issues. The CEO of a system hospital felt threatened by the service line model because he was being held accountable of the bottom line, which he did not	Already existed.

	have direct control over. There was conflict at times between his ideas and the service lines ideas.	
What factors continue to enhance or hinder the process?	Originally when started there was no medical director. There was an administrator of the service line for cardiology. Later the model was changed to a physician driven model. The executive medical director was over the administrator.	Just switched to this job about four months ago so I am still learning the organization.
Were consultants used?	No	No
What other service lines are in the organization?	They had the following service lines: neurosciences, cardiovascular, women's and children's, oncology, and stroke.	They had service lines for transplants, rehab, and neurosciences.
Has one service line been more successful than another?	Yes, cardiac.	Within the hospital service lines work cooperatively together, however, service lines are not implemented across the health care system.
Has success been more organizational dependent or specific services dependent?	Both	They measure success through outcomes as compared to the strategic plan, volumes, P & L, patient and satisfaction surveys.
What skills are necessary for a Service Line Manager/Director?	Good communicator, facilitator, organizer, and visionary	
Can smaller community hospitals be successful using the SL model?	No. He feels because there is no availability of specialty units for patients in a smaller hospital.	
Does the health system have to offer a full continuum of services to be successful?	Yes	

Additional Reading List

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