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Developing an outcomes report card: A case study of one hospital's process.

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DEVELOPING AN OUTCOMES REPORT CARD: A CASE STUDY OF ONE HOSPITAL'S PROCESS

by

DONNA JEAN SLOVENSKY

A DISSERTATION

Submitted to the graduate faculty of The University of Alabama at Birmingham, in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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ABSTRACT OF DISSERTATION
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Title Developing an Outcomes Report Card: A Case Study of One Hospital's Process

The purpose of this study was to identify and describe the decision-making processes used in one hospital to develop a report card of organizational performance indicators for communication with external stakeholders. A qualitative methodology, a detailed investigation of a single case, was used to identify the key players who managed and controlled the process. The findings report an evident use of a pragmatic, solution-centered approach in lieu of a normative model. The decision process was successful in that a solution was implemented, the duration of the process was acceptable, and participants were satisfied with the efficiency and effectiveness of the process. The organization accepted a satisficing solution, which is consistent with an incremental approach to decision making.

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CHAPTER 1

INTRODUCTION

Health Care as a Political and Social Issue

Over the past decade, issues of steadily rising health care costs, the growing number of uninsured individuals, and a continuing inability to define and measure quality of care have become of paramount importance to purchasers, providers, and consumers of health care services. The type and scope of health care provided to individuals, once a private matter between individuals and their personal physicians, are now of interest to employers who pay a portion or all of the insurance premium and to the insurance carriers who seek to minimize their financial liability for health care services provided to their insured population.

Many Americans are affected personally by spiraling health-related costs, either through rising premium costs for insurance coverage (perhaps coupled with increasing out-of-pocket expenditures) or through inadequate or insufficient health care resulting from an inability to pay for what is needed. Generalized dissatisfaction with the growing

complexity, fragmentation, inefficiency, and cost of the current system has positioned health care delivery as a significant political and social issue.

Although proposed models for health care reform have been the subject of much intellectual debate and a growing body of literature in both the popular press and academic research journals since the early 1970s, the issue dominated the political agenda during the 1992 presidential campaign. Bill Clinton promised a health care reform proposal within 100 days of taking office, a campaign promise he was unable to keep. Failure to achieve this goal is intuitively attributable, at least in part, to the collaborative process employed and to the diversity and political power of the constituencies involved. The reformed health system envisioned by the Clinton administration was described as "nationally guaranteed [access to a] comprehensive benefits package" for all Americans (Stout, April 12, 1993).

The reform proposal that eventually emerged in September 1993 was drafted by a Task Force comprised of 511 individuals including 82 experts from outside the government (Stout, March 29, 1993). Several of these experts were policy makers, academicians, and researchers who previously had published

papers conceptualizing and explicating desirable components of health reform (Bergthold, 1993; Sofaer, 1993; Starr, 1993; Zelman, 1993). Notable among this group were several members and associates of the Jackson Hole Group (JHG), an assemblage of health industry leaders, public officials, and health services researchers who had been debating health reform privately for several years. Numerous published discussion points and recommendations of the JHG (Ellwood, Enthoven, & Etheredge, 1992) were evident in the President's October 27, 1993, report on health security (White House Domestic Policy Council, 1993) and in the Health Security Act (1993). The health promotion, disease prevention, surveillance, and data objectives generated by the Healthy People 2000 Consortium (U.S. Department of Health and Human Services [DHHS], 1991) also were evident.

Public Accountability of Health Care Providers

The President's plan placed great emphasis on the public accountability of providers and insurers to furnish comprehensive, high quality health care at an acceptable cost. In effect, the charge was to assure value for health care expenditures. Within this context, value is reflected via

maximized health outcomes and satisfaction in concert with optimal utilization of resources.

Although Clinton was unable to effect the full scope of proposed reforms through national legislation, the health care marketplace continues to evolve toward the intent of his plan through numerous initiatives at local, state, and national levels. This bottom-up approach to reform encompasses efforts from both the public and private sectors and includes mandated and voluntary actions. Visible evidence of market evolution includes business coalitions aimed at negotiating best-value health care coverage, provider alliances formed to establish an efficient continuum of care, and data initiatives instituted to enable purchasers and consumers to make informed decisions about selecting affordable, high quality health care plans and providers.

A common theme among the proponents of a reformed health care system continues to be public accountability which is assumed to be achievable through published reports reflecting provider or plan performance on critical indicators of cost, outcomes, and consumer satisfaction. It is generally acknowledged that no consensus of opinion exists as to the specification of indicators. "Report card" is the prevailing

term used to denote published summaries of organization or plan performance for a specified period of time, usually annually. Content and format of existing report cards vary, but generic categories of information typically include measures of clinical performance, customer satisfaction, cost data, and process efficiency.

Report Cards as an Accountability Medium

Published performance report cards as a medium for accountability pose an interesting, although problematic, recommendation. The nation's first experience with public disclosure of provider-specific quality data--mortality rates of Medicare patients released by the Health Care Financing Administration (HCFA) in 1986--was less than satisfactory (Fottler, Slovensky, & Rogers, 1987, 1988). In addition to significant issues of data reliability and validity, the data often were presented in the media in inappropriate contexts and, thus, often were misunderstood and misused. For example, deaths of patients in a particular diagnostic category might have been reported only as a percentage without specifying the total number of patients treated. Smaller hospitals with fewer patients in the diagnostic category appeared to have

more total deaths. Unresolved problems with methodology prompted HCFA to discontinue the annual data releases in 1993.

To date, several states, health plans, and other entities have released report cards or descriptions of report cards under development. Most of the extant publications summarize anecdotal evaluations of purchaser and consumer benefits derived from using report cards in the setting in which they were developed. No evaluative studies to determine the reliability, validity, or applicability of these report cards to other health plans or geographic locations were identified in the course of this research. No standardized reporting variables or formats exist; thus, it is difficult to compare providers.

In summary, except for a few state mandates and dominant business coalitions capable of leveraging purchasing power, the report card initiative is a voluntary response to a perceived public desire for performance data on specific health care providers. The voluntaristic approach has resulted in a multiplicity of methodologies and reporting formats that limit the intended utility of the product to make comparisons among providers. Health care leaders preparing to design and implement report cards for consumer use or to

facilitate negotiations with health plans would be well advised to employ a development process which addresses these problematic issues.

Theoretical and Practical Implications

The report card phenomenon is one among many challenges confronting leaders of health care organizations. The extraordinary evolution of the health care system over the past quarter-century has left no facet of the system unchanged. The financing and reimbursement mechanisms, types and structures of organizations, planning and management of health services, and the medical model itself all have undergone changes that can only be described as revolutionary. Both the rate of change and the complexity of change in the health care environment continue to escalate.

Health care executives striving to position their organizations competitively in this increasingly turbulent environment often are required to make consequential decisions with inadequate information or with insufficient time to analyze available information. The rationality of strategic decision makers is bounded by a lack of full knowledge of all relevant information, constraining their ability to identify options logically and to evaluate objectively the feasibility

and utility of each option. Inadequate internal processes supporting information collection and analysis may constrain decision-making capabilities further.

Decision makers may seek to compensate for inadequate or insufficient knowledge in several ways. For example, they may subdivide problems, simplify choices, and limit alternatives. Organizations operating in uncertain environments may attempt to cope with the uncertainty by increasing the information processing capability and by creating linkages with customers and suppliers (Sabherwal & King, 1992). Herbert Simon, lauded for seminal work in organizational studies, suggested that the organization's structure can be viewed as a mechanism for "coping with the limits of man's abilities to comprehend and compute in the face of complexity and uncertainty" (Simon, 1979, p. 501).

Decisions made under conditions of complexity and uncertainty are often satisficing, or acceptable, choices rather than the optimal choice. The extent to which an organization can simplify the decisions an individual is asked to make on behalf of the organization and to provide support to decision participants (Simon, 1979) are important factors

in defining the point achieved on the satisficing-optimal continuum.

Strategic decisions also may be reflective of preferences expressed by the dominant coalition, the most politically powerful subgroup within (or external to) the organization. When strategic decisions maximize benefits to the dominant coalition or any single organizational unit, the ensuing outcomes may prove suboptimal when evaluated with respect to the organization as a whole. In an intensely competitive environment rife with mergers, alliances, and industry giants who dominate by size, poor strategic decisions can threaten the very survival of an organization.

Pennings (1985) has categorized decisions as strategic if the outcome has profound implications for the organization and possesses some or all of the following characteristics: (a) significance, as determined by resource expenditure; (b) multiple available options that are difficult to evaluate; (c) complexity, or uncertainty of outcomes; (d) multiple stakeholders with decisional input; and (e) consequence, evidenced by a long-term commitment and internal and external implications. In the absence of a governmental mandate or requirements established by a monopsonistic coalition,

developing and releasing a performance report card for the purpose of attracting purchasers and consumers may be viewed as a strategic decision when compared to these criteria.

The decisions and actions of an organization may affect individuals, groups, and other organizations in important ways. These parties, generally referred to as stakeholders, have a reciprocal potential to affect the formulation, implementation, or success of the organization's strategies (Blair & Fottler, 1990). Stakeholders may rely on outcomes information to assess how the organization's performance will affect their own decisions and actions and to identify areas in which they may leverage their influence on the organization. For hospitals, this issue is particularly relevant in the customer-supplier relationship, wherein the hospital operates as a supplier of health services to purchasers and users. Providing information to support customers' purchase decisions may be a critical success factor in a capitated, managed care environment.

Information management capability is acknowledged as a strategic resource in health care organizations as well as in business and industry. However, expenditures for information resources in health care organizations are typically much

lower than in other industries. Where other information-intensive industries typically spend 10-15% of revenues on information technology, the health care industry average is 2-3% (Zinn, 1995). For most hospitals, comprehensive, fully-integrated, clinical and administrative data repositories are a future vision, not a reality. The existing information infrastructure may be inadequate to generate the preferred indicators for the outcomes report card, or the associated costs may be prohibitive. Assessing information system capabilities concurrently with indicator development is crucial.

James March (1981), an early contributor to the concept of organizational learning, suggested that the process of decision making may be more important than the outcome in many situations. At this point in time, in light of the acknowledged validity and reliability limitations of existing outcomes indicators, the content of a report card, indeed, may be of less value--both to the developing organization and to its stakeholders--than the development process. Additionally, recent research has shown that decision-making processes are related to successful implementation of strategic decisions (Dean & Sharfman, 1996).

Through the process of evaluating potential outcomes indicators, organizations potentially will assess their strengths and weaknesses objectively and identify needed improvements. Early collaboration with stakeholders to identify and negotiate information needs and intended information uses can improve both the efficiency of the development process and the perceived value of the final product. Collaboration in defining outcome measures, data collection methodologies, and reporting formats can enhance the potential for comparison among providers in a market area. Opportunities to achieve economies by sharing development costs may be realized as well.

It is possible that some organizations will create report cards solely for use as marketing devices. Such report cards likely will communicate information carefully selected to represent the organization's most favorable performance measures. Less desirable information may be ignored or camouflaged. Report cards presenting biased or incomplete information may lead to incorrect conclusions about organization performance.

The decision processes employed by an organization's leadership, the human and fiscal resources allocated to

respond to the issue, and the organization's capabilities will interact to produce a unique outcomes report card. If the report card is responsive to the needs of specific stakeholders, the organization may gain a strategic advantage.

Purpose of the Study

The purpose of this study was to identify and describe the decision-making processes that one hospital used to develop a document to report organizational performance indicators to external stakeholders. This description identifies the key players in the strategic decision-making process. The environmental and organizational factors that placed this issue on the organization's strategic agenda are reported. The organizational and leadership characteristics associated with the decision-making styles and decision criteria used are reported. Analyses of data collected established a foundation upon which testable hypotheses have been constructed to facilitate future research to generalize findings.

Research Questions

Studying the decision-making processes to describe how the organization determined what information to include on its

outcomes report card required investigation of several related questions. The questions were as follows:

1. How did the organization identify its key stakeholders for outcomes information? Who are they?

2. How were the key stakeholders' outcomes information needs determined? What performance dimensions do these information needs represent?

3. How were information requirements to generate specific outcomes indicators determined? What criteria were used to select from available indicators?

4. How were owners of the required data and information determined? What information systems contained the necessary data?

Answering these questions increased our knowledge about how organizational leaders collect and process available information in order to make strategic decisions about information management and to report to external stakeholders. Categorizing information sources, specifying decision criteria, and evaluating resulting decisions in this context provided a conceptual framework for developing an outcomes report.

Definition of Terms

The following definitions are provided to clarify selected terms as used in the context of this study:

Indicator

An indicator is a quantitative measure of an aspect of patient care or service delivery. It may be employed to evaluate a qualitative concept such as quality, satisfaction, or efficiency.

Outcome

An outcome is the final result of clinical interventions or service delivery processes.

Performance Measure

A performance measure is "a quantitative tool that provides an indication of a health care organization's performance in relation to a specified process or outcome" (Joint Commission on Accreditation of Healthcare Organizations [JCAHO], 1996).

Report card

A report card is a published summary of organization or health plan performance during a specified period of time, usually quarterly or annually. Performance indicators

typically address clinical outcomes, cost and efficiency of service delivery, or consumer satisfaction.

Stakeholder

Stakeholders are individuals, groups, and other organizations with a stake in the decisions and actions of an organization. Stakeholders have the potential to affect the formulation, implementation, or success of the organization's competitive strategy (Blair & Fottler, 1990). Commonly acknowledged stakeholders in health care organizations include patients, physicians, third-party payers, local businesses, and competitors.

Significance of the Study

Understanding of the decision-making processes associated with report card development at the individual organization level is limited. With the exception of the few states with standard data reporting mandates, the selection of indicators, report format, data sources, and other report card particulars are the prerogative of organizations that choose to communicate their outcomes information to external stakeholders. The report card phenomenon is receiving increasing attention in the popular and trade press, but

little empirical investigation has been conducted to identify organization responses to the issue.

The majority of extant literature relative to report card development and content may be grouped into three categories: (a) discussion of perceived benefits and problems associated with participating in a mandated reporting system, (b) anecdotal reports by organizations and health plans pioneering voluntary public reporting of performance indicators. and (c) promotion of reporting systems developed by not-for-profit organizations such as the JCAHO and the National Committee for Quality Assurance (NCQA). No authors were identified who have attempted to synthesize these reports and propose a normative model to guide organizations in report card development. Rigorous empirical research related to report cards is limited largely to evaluations of validity and reliability of individual clinical outcome indicators. No research investigating the decision-making processes associated with report card development at the individual organizational level was identified.

Without regulatory mandates or clear public policy agendas, organizations often respond differently to strategic issues. Different or conflicting organizational responses and

practices inhibit the ability of researchers to generalize their findings particularly when few organizations or few variables have been investigated. Traditional quantitative research methods may be of limited value in these situations, and investigators appropriately look to qualitative methodologies.

Case study research is particularly appropriate in the early stages of scholarly investigation when theory has not yet been articulated adequately to ground testable hypotheses (Eisenhardt, 1989). Yin (1994) reported a classification of research methodologies based on three conditions: (a) the type of research question, (b) the extent of investigator control, and (c) a focus on contemporary versus historical events. In this classification, the case study is an appropriate methodology when the research question is framed in terms of how or why, when the investigator has no control over events, and when the time frame is contemporary. The examination of how an organization creates a process to develop an outcomes report card and why participants make certain decisions that determine the information to be reported meets these criteria. The case study reported in

chapter 4 documents the decision-making processes employed by one organization to develop an outcomes report card.

Limitations and Delimitations

Limitations are factors with the potential to affect the outcomes of a research investigation but which are beyond the investigator's control. The principal data collection methods employed in this study consisted of interview, observation, and review of organization documents. The following limitations associated with these methods must be acknowledged:

1. The degree of willingness on the part of individuals to participate in interviews, the accuracy of their information sources, and the comprehensiveness and truthfulness of their responses may impose limitations.

2. The available published literature and current knowledge about the issues may not provide sufficient information to enable the investigator to frame appropriate questions, and certain relevant aspects may be omitted or neglected.

3. Opportunities may not be available to the investigator, significant behaviors may occur outside the scope of observation, or participants may behave differently

in the presence of the investigator. The investigator may draw inappropriate conclusions under any of these conditions.

4. The documents made available to the investigator may provide inadequate information from which to draw appropriate conclusions.

Delimitations are factors within the researcher's control which have the potential to affect the outcomes of a research investigation but which consciously were not addressed in the study. The current study was delimited in several important ways. First, a report card may be prepared by any organization or entity regardless of the type or structure. This study addresses only an acute care hospital. Findings are not expected to be generalizable to other types of health care facilities.

Second, the process of developing a report card may differ in each organization. For reasons stated previously, this study investigated only one organization. Consequently, findings may not be representative of all acute care hospitals or even a subset of similar hospitals.

Third, this study investigated only three issues associated with the determination of report card content: (a) stakeholder definition, (b) indicator selection, and (c)

information availability. Other issues may be important and may influence the selected issues as well. The emergent methodology design associated with case study research permits incorporation of additional variables if the researcher determines that omission would compromise the study outcomes.

Summary

Health care executives competing for market share in an era of negotiated prices and payer-controlled access to health care services are compelled to respond to the demands for clinical outcomes and organizational performance data to justify purchasing decisions. Without governmental mandates or enforceable purchaser data specifications, organizations must make individual decisions about the type and formats of information to communicate capabilities and achievements to purchasers and consumers. The implied need for report cards that will enable comparisons among providers of the same or similar services poses an additional challenge.

This chapter has reviewed the rationale for the study in light of the significance of the issues involved. Examination of the decision processes employed by an organization's leaders to develop and implement a report card for public dissemination presented an opportunity to extend existing information about the organizational and leadership correlates

of strategic decision making relative to information management. Determination of key decision makers and decision-making methodologies used in the report card development process suggested future research agendas in addition to the implications for health care executives. These issues are addressed in chapter 5, Conclusions, Recommendations, and Research Propositions.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

The health care system is evolving toward a fully capitated, case-managed model wherein cost, quality, and efficiency of services delivered will be pivotal factors in provider competition for market share. Leaders in health care organizations are challenged by increasing pressures to demonstrate accountability for organizational performance. One mechanism which may be employed to communicate accountability to external stakeholders is a report card which documents performance on selected indicators of clinical and service delivery processes. Although report cards are the subject of much attention among providers and purchasers of health care, no consensus exists as to content, format, and appropriate use of the information. Hospital leaders who elect to develop an outcomes report card must initiate and manage organizational processes to achieve internally established objectives for outcomes reporting.

This chapter first describes the conceptual framework underlying the case study. A general model of report card

development based on a review of available literature is presented. This model was used to frame the four research questions, presented in chapter 1, which guided the case study.

Second, literature describing extant report cards is reviewed. Descriptions of development processes employed are summarized, and limitations of existing report cards are identified.

Third, literature specific to the research questions is summarized. Examples provided by organizations that have implemented report cards is critiqued for prescriptive value.

The final section discusses related research on decision making in information technology implementation. The theoretical framework used in these studies potentially is useful to analyze data collected in the current case.

Conceptual Framework

Case study research is appropriately used to place empirical observations in a theoretical context to generate testable hypotheses or research propositions. This case study will examine the decision-making processes associated with developing an outcomes report card in an acute care hospital. A general development process model is shown in Figure 1.

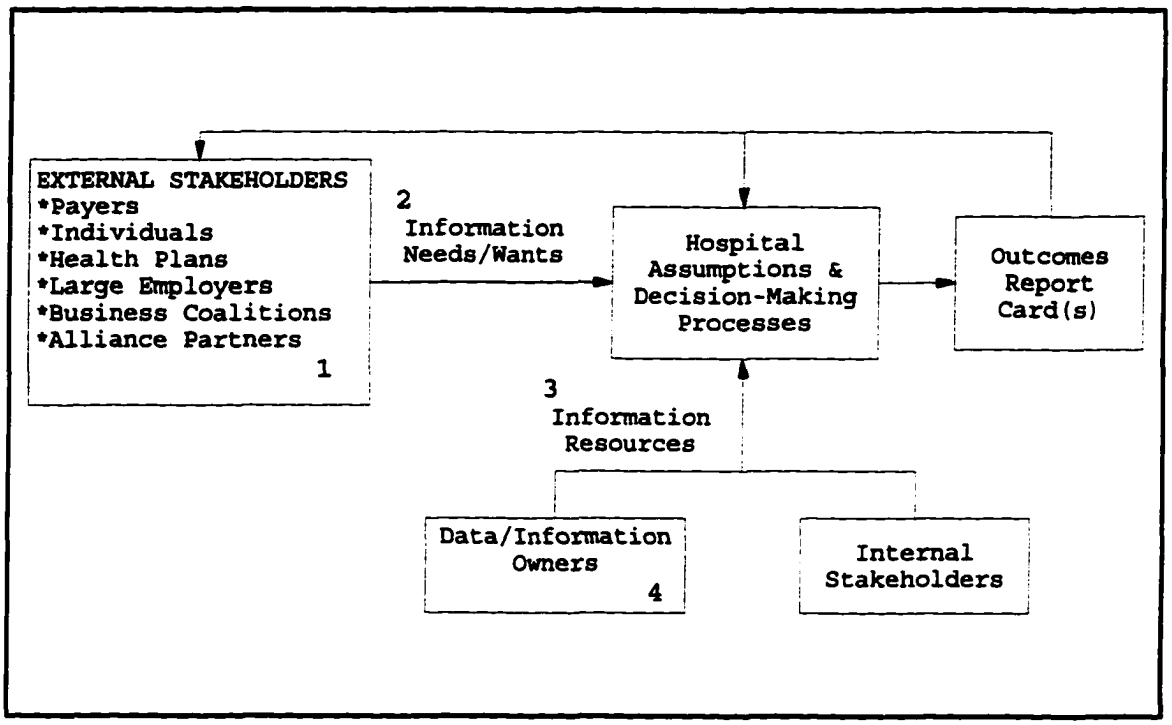

Figure 1. Outcomes report card development model.

The categories of external stakeholders depicted in the box to the left of the model are consistent with reports in current literature (Dearmin, Brenner, & Migliori, 1995; McGlynn, 1993; Nerenz, Zajac, & Rosman, 1993). Although these categories are accepted generally, the relative power of stakeholders differs based on market characteristics and other variables. Research question 1 addressed how the organization identified stakeholder entities specific to the hospital's market.

The best or preferred outcomes indicators, the report format which responds best to stakeholder information needs and the ways in which the information will be used by various recipients, have not been determined. Therefore, it is important that organizations involve key stakeholders in the report card development process. Research questions 2 and 3 investigated how the organization determined the stakeholders' information needs and wants and the information resources necessary to generate the desired indicators. Research question 4 investigated how owners of required data/information were determined.

Data availability is potentially the most important information management issue in outcomes reporting (McNeil, Pedersen, & Gatsonis, 1992). Data access, encompassing both human and technology costs, may be a decisive factor in selecting indicators for reporting.

Existing Report Card Initiatives

Existing report card initiatives may be grouped into five broad categories: (a) mandated reporting programs administered by state agencies (Chassin, Hannan, & DeBuono, 1996; General Accounting Office [GAO], 1994; Green & Wintfeld, 1995; Romano et al., 1995), (b) performance reports developed by health plans (Appleby, 1995; GAO, 1994), (c) information reports requested by purchaser coalitions from competing health plans or reports developed through purchaser-provider collaboration (Bloomberg et al., 1993; Jordan, Straus, & Bailit, 1995; Quality Information Management Corporation [QIMC], 1995; Rosenthal & Harper, 1995), (d) collaborative efforts of not-for-profit organizations (Corrigan & Nielsen, 1993; Epstein, 1995; Nadzam, Turpin, Hanold, & White, 1993), and (e) voluntary provider alliances or single provider reports (Alserver, Ritchey, & Lima, 1995; Dearmin et al., 1995; Laffel, Thompson, & Sparer, 1995; Nerenz et al., 1993). These

reports are summarized in Table 1. The report cards differ not only in the types and formats of information provided but also in the intended audience and information use.

Table 1

Extant Report Card Initiatives, Sponsoring Organizations, and Performance Dimensions Reported

Sponsor/Title/Author	Performance dimensions reported
Mandated reporting programs and voluntary state-wide efforts	
Pennsylvania Health Care Cost Containment Council Hospital Effectiveness Report (GAO, 1994)	• Number of admissions • Average severity of illness • Percentage over age 65 • Actual/expected deaths and complications • Average length of stay • Average patient charge
New York State Department of Health Cardiac Surgery Reporting System (Chassin et al., 1996; Green & Wintfeld, 1995)	• Risk-adjusted mortality for coronary artery bypass graft (CABG) patients
Connecticut Hospital Research and Education Foundation, Inc. Toward Excellence in Care Program (Lynch, Mattie, Shevchenko, & Reed-Fourquet, 1993)	Clinical outcomes for: • Medical cardiology • Cholecystectomy procedures • Trauma • Obstetrics • Psychiatry • Anesthesia/perioperative complications

Table 1 (Continued)

Sponsor/Title/Author	Performance dimensions reported
Office of Statewide Health Planning and Development California Hospital Outcomes Project (Romano et al., 1995)	Clinical outcomes for: • Acute myocardial infarction • Diskectomy • Cesarean section
Health plan report cards	
United HealthCare Corp. (GAO, 1994; McGlynn, 1993)	• Health care quality • Consumer satisfaction • Administrative efficiency • Cost control
U.S. Healthcare (Appleby, 1995; GAO, 1994)	• Functional status • Member access • Member satisfaction • Appropriateness of care • Processes of care
Report cards prepared for purchaser coalitions	
Massachusetts Healthcare Purchaser Group Cost/Quality Challenge (Bloomberg et al., 1993; Jordan et al., 1995)	Clinical outcomes for: • Mental health • Respiratory disease • Cancer • Obstetrics • Cardiovascular disease Process measures for: • Mammography screening • Blood pressure screening • Prenatal care

Table 1 (Continued)

Sponsor/Title/Author	Performance dimensions reported
Cleveland Health Quality Choice Program (Harper, 1995; QIMC, 1995; Rosenthal & Harper, 1994)	Clinical outcomes for: • Acute myocardial infarct • Congestive heart failure • Stroke • Pneumonia • Obstructive lung disease • Surgical procedures Patient satisfaction measures
Report cards developed by not-for-profit organizations	
NCQA: Health Plan Employer Data and Information Set (HEDIS) (Corrigan & Nielsen, 1993; Epstein, 1995)	• Technical quality • Access to services • Enrollee satisfaction • Financial performance • Membership and utilization
JCAHO Indicator Measurement System (IMSystem) ("IMSystem," 1993; Nadzam et al., 1993)	• Clinical performance • Health status • Satisfaction • Process efficiency and effectiveness • Patient communication and education
Provider report cards	
Sisters of Charity Health Care System, Inc. Hospital Quality Profile (Alserver et al., 1995)	• Community benefit • Prevention of illness • Patient satisfaction • Traditional quality measures • Severity of illness measures • Disease/procedure outcomes • Appropriateness • Maternal/child outcomes • Psychiatric outcomes • Risk management • Financial performance

Table 1 (Continued)

Sponsor/Title/Author	Performance dimensions reported
Methodist Hospital St. Louis Park, Minnesota (Dearmin et al., 1995)	• Functional status • Screening mammography • Low birth weight • Abnormal Pap smears • Immunization rates
Monmouth Medical Center Corporate-level Performance Assessment System (Laffel et al., 1995)	• Financial performance • Service • Satisfaction • Integrated health network • Patient care • Risk assessment • Work force • Medical education • Medical staff
Consortium Research on Indicators of System Performance (CRISP) (Nerenz et al., 1993)	• Population health • Community benefit • Quality of care • Episode prevention • Satisfaction • Efficiency • Financial performance

The number and type of information categories varied from New York State's single indicator, CABG mortality, to the Sisters of Charity Health System's 11 quality domains. In general, provider report cards included a greater number of indicators in more performance dimensions than those reports mandated at the state level. However, the majority of indicators reported by providers were not subject to rigorous validation. Health plan and coalition report cards attempted

to balance clinical outcome indicators with patient satisfaction and community health measures.

There are some similarities among report cards, but standardization exists only within statewide initiatives, health plans, or collaborative projects. Some report cards are derived from existing clinical and administrative databases; others employ newly-collected data. Methodologies and data collection instruments may be benchmarked from other sources, purchased from vendors, or developed internally. Few of the organizations publicizing their report cards in the literature described their development process. Available descriptions are summarized in Table 2.

Limitations of Existing Report Cards

Without question, report cards can provide useful information about a health plan or provider of health services. However, the existing report cards and those under development are not without limitations, including some problems of major importance.

Perhaps the most salient of the problems impeding widespread public dissemination of provider and plan outcomes information is the lack of consensus as to the appropriate indicators or measures to report. Perhaps thousands of

Table 2

Report Card Development Process

Organization/ Personnel/Time to Develop	Method employed
Sisters of Charity Health Care Systems, Inc. Cincinnati, OH (Alserver et al., 1995) System quality management personnel One year to design system; 3 months to collect data	• Reviewed medical literature • Reviewed project with executive personnel from each hospital • Designed data collection instrument and collected data • Defined quality domains • Defined indicators in each domain (each hospital permitted to select among corporate-defined indicators)
Massachusetts Healthcare Purchaser Group (Bloomberg et al.,1993) Representatives from employer, four HMOs, Medicaid agency 2 years	• Employer identified health care priorities • Goals and objectives set by employer and HMOs in collaboration • Short-term and long-term measures identified by consensus • Operational indicator specifications defined • Data collection forms designed • Data collected and submitted to consultant statistician for analysis and report generation

Table 2 (Continued)

Organization/ Personnel/Time to Develop	Method employed
Rockwater/Apple/Advanced Micro Devices composite (Kaplan & Norton, 1993) Executive leadership with facilitator Time not reported	• Strategic objectives conceived by top management • Executives reached consensus about important operational measures linked to strategic objectives • Draft scorecard created for executive reaction • Implementation plan developed to set targets for measures • Accessed or createed information systems to support measures • Periodic review
Monmouth Medical Center Long Branch, NJ (Laffel et al., 1995) Executive leadership Seven meetings over 3 months	• Reviewed strategic objectives • Brainstormed measurements • Classified measurements • Specified inclusion criteria • Reached consensus re: measures selected • Planned implementation for each area

indicators exist. Few, however, have been adequately validated. The availability of multiple indicators purporting to measure the same outcome further confounds the issue.

A second problem of major import is the inadequacy and inaccuracy of existing information resources and databases.

Most administrative databases maintained by providers and health plans are designed primarily for purposes of billing and reimbursement. Demographic and resource utilization data are captured to document patient encounters and to prepare and justify claim forms. Clinical data are limited largely to coded diagnostic and procedural information which provide inadequate detail about the processes of care. The individual health record, rich in clinical and process information, is the preferred source of data for outcomes assessment. However, abstracting the desired information from paper records is cost prohibitive in most cases.

The risk/severity adjustment methodology employed to ensure that the outcomes achieved are attributable to provider performance and not mediated by unique patient characteristics is potentially problematic. Arguably, some risk adjustment protocols are among the more reliable and better validated instruments available for outcomes evaluation. However, others have not been validated and general utility remains variable depending upon choice of instrument and the patient diagnosis to which it is applied.

The lack of standardization in report card measures selected and the statistical formulae used to calculate

results limit the potential to make comparisons across plans or providers. More and different information is available to purchasers and consumers who continue to bear the responsibility for making value judgments about performance. However, the intended benefit is not realized because information from different providers cannot be contrasted sufficiently to support a decision.

Few report cards are verified by an independent agent. Internal data errors may remain undetected thus compromising the accuracy of reported results. At present, external auditing to demonstrate data integrity is voluntary, and few organizations have established credibility to serve as auditors (Corrigan & Nielsen, 1993; "Performance Measurement," 1995).

The direct and indirect costs of developing and producing a report card rank highly among the nontrivial problems. The United HealthCare Corporation (UHC) exploited an existing quality information system to devise its performance report. Nevertheless, preparation of the annual report card took 8 to 10 weeks, and UHC estimated that the cost of collecting information for a report card could be counted in the millions of dollars contingent upon computer and personnel resources

employed (GAO, 1994). Kaiser Permanente, as well, elected to use existing computerized databases to avoid data abstraction costs. Development of the Kaiser card, which reports information about provider processes and outcomes of care, took nine months and cost approximately $200,000, exclusive of administrative costs (GAO, 1994).

Identifying Key Stakeholders and Assessing Their Outcomes Information Needs

The decisions and actions of an organization may affect individuals, groups, and other organizations in important ways. These parties, generally referred to as stakeholders, have a reciprocal potential to affect the formulation, implementation, or success of the organization's strategies (Blair & Fottler, 1990). Stakeholders, both internal and external to the organization, may rely on outcomes information to assess how the organization's performance will affect their own decisions and actions and to identify areas where they may leverage their influence on the organization. This study investigated how an organization defined the information needs of key external stakeholders for whom a report card would be developed.

Blair and Fottler (1990) described three categories of external stakeholders for health care organizations: (a)

those providing inputs to the organization, (b) those competing with the organization, and (c) those with some special interest in how the organization functions. Stakeholders in each of these categories may seek the type of information about organization performance which would be included in a report card. For example, patients (system inputs) may want information about how satisfied previous users of the hospital have been. Competitors may seek performance indicators from other organizations to assess their own competitive capability or to benchmark superior performance. Special interest groups, such as accrediting agencies, may use published outcomes data as an alternative to on-site data collection or specially constructed reports.

Stakeholders in Hospitals

The stakeholder concept entered the strategic management literature in the 1970s (Freeman, 1984) but was not utilized in health services management research until the late 1980s (Blair & Fottler, 1990; Blair, Savage, & Whitehead, 1989; Blair & Whitehead, 1988). Hospital stakeholders initially were classified broadly as cooperative or threatening (Blair & Whitehead, 1988). However, later work contributed an economic component (Blair, Slaton, & Savage, 1990; Savage,

Blair, Benson, & Hale, 1992) and encouraged managers to direct attention to stakeholders most capable of affecting the hospital's financial resources.

Blair and Fottler (1990) drew attention to the increasing number and diversity of health care stakeholders and noted the shift in relative power from hospitals to their stakeholders. This power shift is particularly evident with regard to stakeholders who purchase and pay for health care services and products (Ellwood, 1988). Health services managers have been compelled to migrate from monitoring, co-opting, and defensive stakeholder management strategies to seeking collaboration opportunities with stakeholders. In the highly competitive health care environment, the survival of an organization may depend on how well powerful stakeholders are managed.

The intent of proactive stakeholder management approaches is to negotiate common goals with stakeholders rather than merely adapt to stakeholder initiatives (Harrison & St. John, 1996). An organization may examine stakeholders' activities, goals, values, and norms to identify commonalities with those of the organization (Malvey, 1996). Proactivity in communicating with external stakeholders is intuitively desirable. Although few organizations have implemented

operational strategies for this purpose (Irving, 1994; Kudrle, 1993), partnering has been recommended as a stakeholder management tactic (Harrison & St. John, 1996).

A proactive approach to managing stakeholders' outcomes information needs would be to develop a report card in collaboration with those key stakeholders who make decisions about purchasing health care services. Limited use of this approach has been reported by purchaser coalition and provider alliances (Bloomberg et al., 1993; QIMC, 1995; Rosenthal & Harper, 1994). However, to date, individual consumers have had minimal input in reporting initiatives (Hibbard & Jewett, 1996; McGee & Knutson, 1994; Ribnik & Carrano, 1995). This omission is antithetic to policy intent for consumer-directed disclosure (Penzer, 1995). The most notable exception is the inclusion of patient satisfaction survey data as a report card element.

A modest amount of research using focus groups has shown some interesting inconsistencies in perceptions of available information and its use for provider selection. An Institute of Medicine study (Lohr, Donaldson, & Walker, 1991) found that a majority of participants agreed that indicators such as mortality rates, malpractice claims, frequency of performing

certain operations, and nursing home inspection reports would be useful to make choices about health care. However, they did not believe this information to be generally available. A study using three focus groups representing privately insured individuals, an uninsured population, and Medicaid recipients (Hibbard & Jewett, 1996) categorized information as (a) desirable event indicators, (b) undesirable event indicators, (c) patient ratings of quality and satisfaction, and (d) disciplinary actions. The authors found that while consumers stated a preference for desirable event indicators and patient ratings, they were more likely to select a health plan based on performance on undesirable events. A third study used six focus groups to identify attributes affecting health insurance decisions (Chakraborty, Ettenson, & Gaeth, 1994). An important finding from this study is that selection attributes differed by gender, by age, and by need for dependent coverage. For example, females preferred plans which provided 24-hour phone consultations, whereas males sought plans which covered services in any geographic location. Younger individuals were more concerned with coverage for preventive services than older individuals.

Organizations identified in the literature review which specifically defined potential stakeholders for outcome information are listed in Table 3. None of the authors reported a process for determining the specific information needs of these stakeholders. However, Kudrle (1993) described a methodology for initiating collaboration between providers and payers which could be adapted for this purpose. Abbott Northwestern Hospital in Minneapolis implemented a customer-focused quality improvement program that specified payers as a customer group. Payers' information needs were specifically sought prior to development of a new service line.

The authors represented in Table 3 did not query the identified stakeholders in any systematic fashion to identify indicators responsive to stakeholder preferences. However, some authors made assumptions about the appropriateness of certain indicators for stakeholder categories (Nerenz et al., 1993; Pine, 1993) or suggested how stakeholder groups might use outcomes information (Dearmin et al., 1995; DesHarnais, Marshall, & Dulski, 1994).

Assumptions made about desired indicators included beliefs that (a) individuals want information about patient satisfaction and comparative performance in order to select

among providers; (b) large purchasers want information about plan financial performance, efficiency, and effectiveness to guide purchasing decisions; and (c) accrediting agencies want information about compliance with existing standards.

Table 3

Outcomes Information Stakeholders

Identified stakeholders	Organization/Author
• Payers • Purchasers/Business Coalitions • Legislators • Local & trade media • Patients • Donors and potential donors	Methodist Hospital St. Louis Park, MN (Dearmin et al., 1995)
• Accreditation & regulatory agencies • Large purchasers • Individuals • Clinicians • System managers • System boards/CEOs	CRISP (Nerenz et al., 1993)
• Purchasers • Consumers • Health care providers • Policymakers	United HealthCare (McGlynn, 1993)

Customer/Supplier Relationships

A related stream of literature, better developed in business and industry than in health care, addresses two specific types of stakeholders: customers and suppliers. The

customer/supplier relationship concept is important to this study because the report card is a medium by which a hospital can market its capability as a supplier to potential customers.

Lessons learned in other industries can provide direction for addressing some important issues raised in the health care stakeholder literature. The stakeholder power shift and collaboration strategies reported in health care have been observed in other industries as well. One response has been that companies adopting quality improvement principles focus on supplier management techniques to control cost and quality of input products. These companies often work with fewer suppliers in risk-sharing arrangements. Important lessons learned from these ventures in other industries can be useful to health care providers. For example, the risk associated with relying on a few suppliers to provide products conforming to a buyer's unique specifications requires a high level of trust between buyer and supplier which can be achieved only through sustained relationships (Frey & Schlosser, 1993; Ring & Van de Ven, 1992). Hospitals and payers will need long-term relationships to build shared databases. Reliable data from both parties is an essential precursor to improving delivery

processes. Shared data can enable both parties to improve organizational performance and to negotiate performance-based contracts. Collaboration of this type is a recent tactic in health care enterprises (Kennedy, 1995; Zysman, 1996).

Collaboration strategies, noted previously as the predominant trend in health care stakeholder management, have been employed between manufacturers and suppliers who acknowledged the success of the Japanese model (Dyer & Ouchi, 1993; Frey & Schlosser, 1993; Friedman, Bailit, & Michel, 1995). Through collaboration, suppliers and their customers can achieve mutually beneficial relationships that promote maximum resource utility. Bakos and Treacy (1986) suggested inter-organizational information systems as an effective collaboration strategy. This approach is currently under consideration in some hospitals as a mechanism to link physician practices more tightly to the organization. Physicians' offices would be connected to the hospital information system with access to the clinical data repository. Connectivity with other stakeholders for strategic purposes can offer similar rewards.

Finally, large volume customers (such as a health purchasing cooperative) often can leverage enough power to

purchase services selectively from available suppliers thus forcing competitors to lower prices. Maintaining profitability in such a market will require that suppliers have good information about customer needs and practices to design their own systems effectively (Myer, 1989).

Determining Information Requirements for Outcomes Indicators

In the context of describing organizational performance, report cards may be deemed to serve two primary objectives: (a) to communicate information to external stakeholders and (b) to enable leaders to measure achievement of strategic objectives. The objective of interest in this study is communication with external stakeholders. Although potential exists for each organization's report for external communication to be unique, an underlying assumption is an intention to use report cards to show relative position among market competitors or to promote distinctive organizational competencies. A second assumption is that the report card should employ a parsimonious set of objective indicators or measures from all relevant dimensions of performance.

Therefore, important questions are how hospital leaders determine the relevant performance dimensions and how the "parsimonious set" is selected. This section summarizes

information about defining performance dimensions, evaluating available indicators, and selecting indicators to report.

Defining Performance Dimensions

Luttman and his colleagues stated that "leaders have a nondelegable responsibility for identifying a set of corporate performance measures" (Luttman, Siren, & Laffel, 1994, p. 45). This position is arguable relative to health care report cards as corporate leaders may be poorly prepared to evaluate clinical outcome indicators. A recent study of clinical and administrative leaders in 36 hospitals found that identifying and ranking quality issues in hospitals is strongly associated with professional discipline (Sales, Lurie, Moscovice, & Goes, 1995). In this study, hospital administrators focused primarily on organizational issues; physicians were likely to address physician, organization, and patient care issues; and nurses were attentive to patient care and patient satisfaction issues. These findings suggest that a multidisciplinary approach to indicator development and selection may be desirable. However, key performance dimensions are derived appropriately from the organization's mission and goals established by leaders, both clinical and administrative.

Chernov (1993) acknowledged the benefits of uniformity among report cards but noted that unique indicators may be necessary to address issues of consequence to the organization. For example, if the report card is to be used strategically to position an organization in its market, distinctive competencies must be reported. Therefore, some combination of uniform and unique indicators may be necessary.

Indicator Selection Criteria

Specifying the criteria used for indicator selection, particularly in the early stages of report card development, is important because information users may raise questions about indicators which were not reported. Criteria employed for indicator selection by the organizations reviewed are shown in Table 4. Criteria specific to an individual organization may have little value in terms of generalizability but are important as reflections of the decision-making process.

Several authors have posed desirable attributes of outcome indicators (Dearmin et al., 1995; Hungate, 1994; "IMSystem," 1993; Kaplan & Norton, 1992; Kazandjian et al., 1993; McNeil, Pedersen, & Gatsonis, 1992; Romano et al., 1995). Commonly accepted characteristics with consensual

Table 4

Indicator Selection Criteria

Indicator selection criteria	Organization/ Author
"Best fit" with: • Mission • Population • Environment • Strategic quality plan • Scope of services	Sisters of Charity Health Care System, Inc. (Alserver et al., 1995)
• Clinical pertinence • Represents outcome or process linked to outcome • Sufficient specificity • Ease of measurement • Short data collection time • Broad application across managed care plan	Massachusetts Healthcare Purchaser Group (Bloomberg et al., 1993)
• Relevance and value to the employer community • Ability of plans to develop & provide data • Potential impact on improving care	HEDIS (Corrigan & Nielsen, 1993)
Internal reports • Reflect major service areas • Reflect internal process improvement • New activity • Patient satisfaction • External reports • Understandable • Meaningful • Important to target audience • Not easily misunderstood	Methodist Hospital St. Louis Park, MN (Dearmin et al., 1995)

Table 4 (Continued)

Indicator selection criteria	Organization/ Author
• Quantify aspects of care • Definition acceptable to all participants • Facilitate collecting meaningful data	Maryland Hospital Association QI Project (Kazandjian, Lawthers, Cernak, & Pipesh, 1995)
• Consistent with MMC mission • Important to board or payers or patients or executive managers or physicians, nurses, managers • Objective information available • Benchmark information available • Links with previous quality and financial reporting • Can "drill down" to find opportunities for improvement • Actionable for accountability	Monmouth Medical Center (MMC) (Laffel et al., Thompson, & Sparer, 1995)
• Agreement on what constitutes good or desirable performance • Readily available data • Information useful internally and externally	United HealthCare (McGlynn, 1993)
[Proposed] • Relevance • Reliability • Validity • Discriminatory capability • Data collection effort required	IMSystem ("Performance Measurement," 1995)

Table 4 (Continued)

Indicator selection criteria	Organization/ Author
• Sufficient data for risk adjustment • Important in terms of cost and volume • Measurable outcome influenced by medical care • Reliable diagnostic and procedural data available	California Hospital Outcomes Project (Romano et al., 1995)

definitions include validity, reliability, sensitivity, and specificity. Other attributes, such as relevance and importance, appear to be acknowledged widely, but definitions lack consensus. Importance, for example, may be defined in terms of cost, volume, associated risk, or intrinsic value to the user of the information. Feasibility may be defined as ease of data collection, cost of data collection, or some other contextual variable.

Information Systems Issues in Outcomes Reporting

The information systems resources, both technological and human, required to collect and manipulate data and to produce an information report for dissemination are pivotal to the success of an outcomes reporting system. Several issues must be addressed when evaluating information management capability.

First, and potentially the most important, is data availability (McNeil et al., 1992). For many reasons, including cost and available technology, integrated data repositories are far from commonplace in health care organizations. The data elements needed to generate performance indicator measures, or to risk-adjust clinical measures with individual patient characteristics, may be located in diverse (and non-linked) databases (DesHarnais et al., 1994). A more challenging circumstance is that the data may exist only in individual patient records, ancillary department records, or other source documents. Costs associated with data recovery may be prohibitive. Administrative databases, though more consistently developed and standardized across providers than clinical databases, have been problematic in terms of accuracy and sufficiency (Hannan, Kilburn, Lindsey, & Lewis, 1992; Jollis et al., 1993). Existing systems are better developed in inpatient settings than in ambulatory care sites (Aller, 1996). Creating new system capabilities and designing new methodologies to capture outcomes data across the continuum of care will require significant investments of time, expertise, and money. Therefore, identifying the "owners" of the

relevant databases and evaluating the accuracy and richness of the available data are important steps in report card development.

Second, data quality continues to be a high-profile issue. Errors in diagnostic and procedure coding and incomplete or inaccurately abstracted data elements are difficult to detect in electronic databases without verifying data elements against the source documents. Again, this is cost prohibitive even if possible on a large scale. Some data validation studies have shown promising results (Fisher et al., 1992; Jones et al., 1993), but much work remains to be done.

A third nontrivial issue in outcomes information management is the capability of organization personnel to analyze data correctly and present the resulting information effectively. Few organizations currently employ an adequate number of personnel with the skill sets needed for outcomes reporting. Some organizations have addressed the issue by employing outside consultants (Dearmin et al., 1995). Several authors acknowledged the need for external validation of report cards (Epstein, 1995; GAO, 1994; QIMC, 1995).

Related Research in Information Technology Decisions

The activities of collecting, analyzing, presenting, and interpreting data, all of which are required to develop a report card, may be described as information management processes. Information management is distinct from information technology management as the latter is directed at selecting and configuring the physical information systems components. However, the two processes are highly interdependent. Research studies addressing information technology management problems may provide helpful information to investigate similar or related issues in information management.

An emerging stream of research addressing decision processes in selecting and implementing information systems (Sabherwal & Grant, 1994; Sabherwal & King, 1992, 1995; Sabherwal & Tsoumpas, 1993) reported both quantitative research and case studies. Significant contributions of these papers include the development of research propositions and analytical frameworks and the identification of relevant concepts from strategic management and organizational theory and behavior literature.

A second relevant category of information system research addresses contextual factors associated with system implementation (Bakos & Treacy, 1986; Cheney & Dickson, 1982; King & Sabherwal, 1992; Sabherwal & Grant, 1994; Sabherwal & Tsoumpas, 1993). The findings of these studies are somewhat confounded by the desire to study "strategic" information systems. Although criteria have been established for classifying an information system as strategic (Sabherwal & Tsoumpas, 1993), operationalizing the concept remains subjective. One important finding of these studies was recognizing that strategic information systems are targeted more frequently at customers than at competitors (King & Sabherwal, 1992). The review of literature relating outcomes report card development efforts suggests that individuals, the implicit "customers" in health care, have little input into defining report card content. This apparent difference should be examined and an explanation attempted. Because physicians are influential in selecting care sites and managed care organizations often negotiate contracts with selected providers, questions as to which "customer" is given priority by providers is relevant.

Summary

This chapter has reviewed available literature related to issues associated with report card development and implementation. Significant contributions from related research streams have been summarized. Summary tables addressing the primary research questions were included.

Although many assumptions exist about who will use outcomes report cards and how the information will be used, little systematic investigation has been conducted to address these two questions. Research in outcomes indicators has primarily focused on assessing the validity of various indicators. Less attention has been paid to how organizations select from among available indicators and how existing information resource capabilities to produce the reports are evaluated. This study investigated the selected hospital's efforts in this area as well.

Research in information systems was reviewed to identify methods or findings which might be helpful in this study. Several articles were identified which investigated decision-making processes relative to selecting and implementing strategic information systems. Conceptual models described in

these articles used in case data analysis will be discussed in chapter 3, Methodology.

CHAPTER 3

METHODOLOGY

The purpose of this research was to identify and describe how and by whom decisions were made within an organization to establish the processes necessary to design, develop, and implement an outcomes report card. The description, in the form of a case study, identifies the key players who managed and controlled the process. It also reports the environmental and organizational factors that placed this issue on the organization's strategic agenda and that contributed to the methodology used to develop the report card. Information from multiple sources was collected and analyzed to answer the following research questions:

1. How were the organization's key stakeholders for outcomes information identified? Who are they?

2. How were the key stakeholders' outcomes information needs determined? What performance dimensions do these information needs represent?

3. How were information requirements to generate specific outcomes indicators determined? What criteria were used to select from available indicators?

4. How were owners of the required data and information determined? What information systems contained the necessary data?

At the conclusion of the study, analyses of data collected established a foundation upon which propositions were constructed to facilitate future research to generalize findings. Research propositions are presented in chapter 5.

Research Site

The study was conducted as an investigation of a single case but with multiple units of analysis. A single case study is a desirable alternative to investigating multiple cases when the single case is critical, extreme or unique, or when it offers access to previously inaccessible scientific observation (Yin, 1994). The information available at the selected site was rich in detail not reported in current literature. A sampling strategy whereby the case site is selected because it is a "typical case" (Patton, 1990) was particularly appropriate for this investigation because extreme cases--those which were unsuccessful and those which

offer solutions so unique they cannot be replicated--offer little foundation to formulate testable hypotheses.

The site selected for investigating the research questions is an acute care hospital located in a metropolitan area in the southeastern United States. The site was desirable for several reasons.

1. The hospital is licensed for more than 300 beds, provides a full range of inpatient, outpatient, and community-focused services, and is a prominent participant in its local health care market.

2. The hospital is church affiliated and is part of a corporate system with regional divisions. These two organizational characteristics have been associated with strategic behaviors in previous studies. Further, the church affiliation may influence specific issues to be investigated (Fonner & Tang, 1995).

3. The hospital is considered the flagship in its corporate region. A report card developed at this facility could serve as a model for the region and the system.

4. The hospital is negotiating alliances with other providers in the local market. Clinical outcomes and process performance indicators, stakeholder relationships, and

information system capabilities are potentially important issues in negotiation.

5. The organization's leaders had chartered work groups and teams to establish an information infrastructure preparatory to developing a report card. Time frames designated for these activities were compatible with the investigator's research plan.

6. The investigator previously had established a working relationship with the organization. This relationship facilitated access to corporate and facility documents and observation of planning activities.

Data Collection Instruments

Multiple approaches were used to collect data for the case study. Interviews with facility personnel represented a significant source of information for the study. Four groups of participants in the report card development process were identified: the Executive Team (ET), the Continuous Improvement Board (CIB), specially-chartered work groups, and influential individuals who did not fit into any of the three previous categories. Personnel who were interviewed are listed in Appendix A. Although it was not possible to know a priori which individuals were most influential or those who

contributed little to the work group products, it was not necessary to interview all members of the work groups to develop a comprehensive description of the activities and decisions emerging from each group. When available, minutes of work group meetings and reports were reviewed prior to conducting interviews. Some individuals who did not participate for the duration of the work groups' activity were omitted from interview. Observations of work group meetings were helpful in understanding individual roles in group dynamics. Similarly, preliminary document review and informal discussions with individuals whose names were prominent in committee minutes and reports permitted purposeful selection of representatives from the ET and the CIB. Only those associates who contributed to the report card development process were approached for interviews.

Interview questions are included in Appendix B. These questions were designed to obtain answers to the research questions but were not intended to limit data collection to the questions posed. Rich description of contextual factors was pivotal to accomplishing the research objectives, and some discussions were initiated during individual interviews that

were peripheral to the primary research questions. Some interviews were taped-recorded with permission of the informants.

Information was collected from work group members to define the group charter, to identify processes used to produce recommendations, and to assess group effectiveness and efficiency in meeting objectives. The anchored rating scales used to measure work group effectiveness (interview question 2g) and efficiency (interview question 2h) were modifications of a scale developed by Nutt (1991) to measure decision effectiveness.

Members of the ET and the CIB were interviewed to clarify the beliefs and assumptions held by the hospital leaders, to define the performance expectations as to work group products, and to gain an understanding of the decision-making style of the organization.

The individuals identified in the "special" category, and perhaps others, may have served as information resources to the work groups or to hospital leaders with regard to operational issues associated with decisions or recommendations. Interaction with these individuals typically emerged more as discussion than a formal interview format.

Few questions were pre-designed as discussion topics appropriate to their organizational roles were expected to emerge from other interviews and observations. All interviews and discussions were transcribed or documented on interview forms.

Administrative records and other archival documents provided a second source of information for analysis. An annotated bibliography of documents reviewed is presented in Appendix C. Information elements abstracted from these documents were compared to interview and observational data. Where any discrepancies were identified, further sources of corroboration were sought. Data collection forms were developed as needs were identified.

Observations made by the researcher were recorded on the form shown in Appendix D. This form facilitated the association of notes describing the researcher's personal reactions to behaviors and events with factual data about those observations. The researcher attempted to be present at all work group meetings scheduled after this study was initiated. Other observation opportunities included informal or scheduled meetings between members of the ET or CIB, interactions between individuals from any of the research

units, and interviews or meetings with external consultants or identified stakeholders.

Data Collection Procedures

Data were collected from a variety of sources, using several collection methodologies, to achieve triangulation (Jick, 1979). Triangulation is defined generally as using a combination of methodologies to study a phenomenon from several viewpoints thereby improving the confidence in judgments about findings.

Case study data were collected on site via three methodologies: (a) interviews, (b) document review, and (c) observation. The Stakeholder Work Group had completed its report and disbanded prior to initiation of this study. Participants in this group were asked to respond to interview questions via the internal electronic mail system or a written questionnaire. This technique allowed the respondents to manage the time required to participate without undue interruption of work duties. Individuals who observed the focus groups and external consultants also completed written questionnaires. Selected members of the Report Card Work Group, the ET, and the CIB were interviewed personally.

Information abstracted from review of organization documents or collected by observation was organized using tables, flow charts, and simple coding schemes to facilitate analysis of qualitative data.

Credibility Strategies

Several strategies to ensure the overall credibility of this project and the final report were employed. These strategies are presented as rebuttals to concerns often raised with regard to case study research and to qualitative research methodologies in general.

Case research is sometimes perceived as less rigorous than quantitative research (Yin, 1994), although a challenge of lack of rigor may be directed appropriately at quantitative methods as well. The proposal for this research project was assessed using criteria suggested for evaluating the rigor of strategic management research programs (Shrivastava, 1987). Evaluation criteria included conceptual adequacy, methodological rigor, and accumulated empirical evidence.

Conceptual adequacy is measured by the degree to which the research is grounded in a theoretical framework. The case study was based on research questions suggested by a conceptual model drawn from relevant literature.

Evidence of methodological rigor includes selection of a method appropriate to the objectives of the study. The rationale for selecting a case study methodology and the particular site has been presented previously.

In quantitative research, empirical evidence is sought to support a hypothesized theoretical structure. In case study research, empirical evidence is examined to advance a theoretical framework to the stage of hypothesis development. The evolutionary nature of case study research encourages continuing data collection until adequate empirical evidence has been collected to answer research questions. Research propositions or hypotheses can then be developed.

Case studies are considered by some individuals to be more subject to bias than studies employing quantitative methods. Studies involving the researcher as a participant observer, as this case did, may be of particular concern. Denzen defines participant observation as "simultaneously combin[ing] document analysis, interviewing of respondents and informants, direct participation and observation, and introspection" (Patton, 1990). The intent of this type of interaction is to gain an insider's point of view to describe events better for outsiders. The risk of bias arises from the

researcher's preference for selected informants or documents over others as information sources. The preferred information sources may lead to conclusions that differ from those reached using other information sources. This potentiality was managed by employing several techniques as recommended by Miles and Huberman (1994): (a) identifying informants who provided background and historical information, (b) triangulating across data sources, and (c) peer examination of raw data, graphic displays, and analysis.

A third criticism levied against case study research is the inherent challenge to generalizability of findings. Clinical cases and applications of legal cases in courts of law suggest appropriate methodologies for evaluating case study findings (Kennedy, 1979). The case study researcher should present empirical evidence and draw conclusions from that evidence. Subsequent users of the case study must determine whether the case is generalizable to their particular situations. Building (and reporting) a "logical chain of evidence" (Miles & Huberman, 1994, p. 156) can greatly assist case users in determining generalizability. This case study and associated documents present the evidence

from which the conclusions presented in the final chapter were drawn.

Finally, the credibility of the individual researcher is often an issue of consequence. Training in research methodologies, research experience, previous successes, and status all may be questioned (Patton, 1990). To some extent, these issues are moderated in dissertation research by the oversight role of the dissertation committee. Faculty with previous experience in qualitative research methods accepted appointments to this researcher's dissertation committee. Additional support was provided by experienced academic researchers who recommended publications addressing qualitative research methodologies and data analysis. Recommendations from a technical reviewer external to this university during the proposal process also were incorporated into the research design.

Data Analysis

The purpose of this case study was to provide a descriptive report of the decision processes in one organization leading to outcomes report cards. Although the report card represents performance of the organization as a whole, individuals, structured work groups, and other groups

with authority in the development process were addressed as units of analysis (Yin, 1994). Subsequent to these subunit analyses, the combined activities of these groups were examined to document the organization's decision process as a system. Data were analyzed concurrently with the collection processes to permit modifications to the research plan when indicated by findings (Creswell, 1994).

Analysis required reducing the data collected by organizing the information into tables, matrices, and other visual displays. Patterns, homogeneous categories, or themes then emerged from the data. Convergence of evidence across data collection methodologies was sought. Visual displays are presented to summarize and illustrate narrative information. Some displays were constructed as appropriate to facilitate data analysis and are not included in the final presentation.

Models Identified for Use in Decision-Process Analysis

Unique activities which could be isolated and attributed to individuals or groups were described and placed in temporal order. Two models were identified which were helpful to examine further the decisions. Sabherwal and Grant (1994) synthesized management decision-making literature into a four-celled matrix depicting the effects of internal processes and

external conditions on the decision-making process. As illustrated in Figure 2, the decision-making models associated with the cells were defined as (a) rational, characterized by low external and internal influences; (b) deterministic, dominated by high external and low internal influences; (c) political, characterized by high internal and low external influences; and (d) incremental, highly influenced by both external and internal issues. Classification of decision-making models into these four categories is consistent with strategic management literature (Hrebiniak & Joyce, 1985; Lindblom, 1959, 1979; Nutt, 1984, 1991; Pfeffer & Salancik, 1974; Quinn, 1978; Scott, 1992; Simon, 1979). Sabherwal and Grant used this framework to investigate decision-making processes associated with the use of strategic information technology applications in nine organizations.

The unique content of outcomes report cards developed by an organization for dissemination to external stakeholders is determined primarily by two influential factors. First, the information needs and desires of the key stakeholders constitutes a strong external influence. In a highly competitive industry, timely and appropriate response to customers' and other stakeholders' demands is crucial.

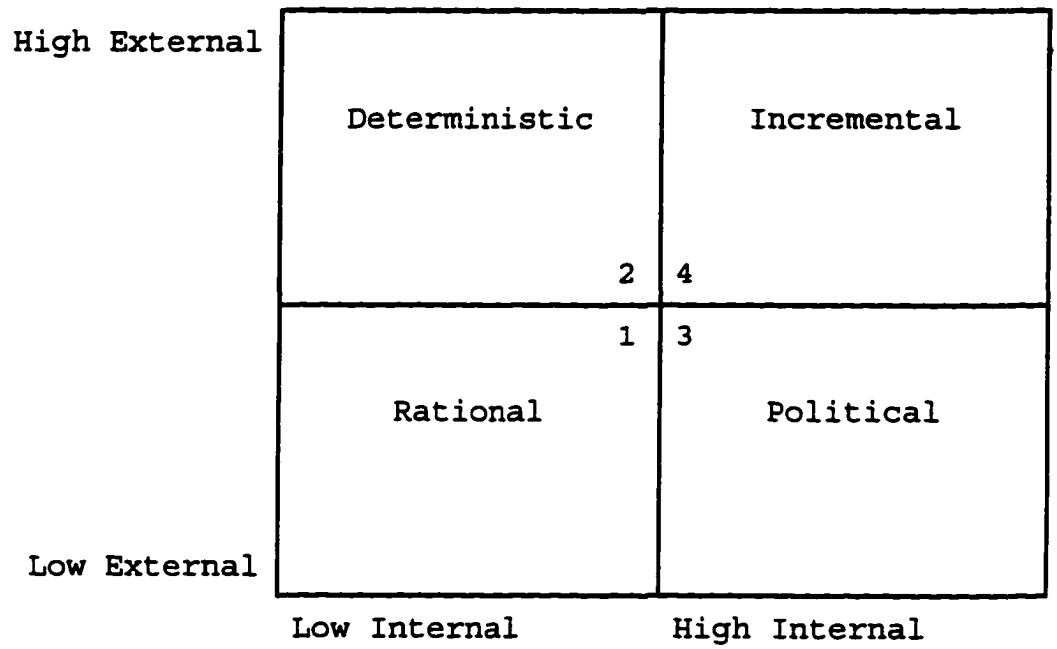

Figure 2. Effect of external and internal influences on decision-making processes associated with information systems implementation (Sabherwal & Grant, 1994).

Second, the existing information resources, information system processes, and organizational dynamics constitute an internal influence. The analytical framework posed by Sabherwal and Grant (1994) to examine the internal and external influences on information system decision making provided an appropriate structure to examine decision-making issues associated with the report card development process.

Nutt (1984) developed a framework of five stages to analyze key activities in decision processes. Within each stage, decision makers may seek, synthesize, and analyze available information. The formulation stage improves the understanding of the problem and sets solution objectives. Concept development identifies alternative responses which are expanded and tested in the detailing stage. Evaluation considers the costs and benefits of each identified alternative. The plan is carried out in the implementation stage. Although the stages and information steps are linear, they are not prerequisite. Information functions or stages may be omitted. Nutt classified data from case studies of 73 organizations to create a decision process typology. Classification was based on an organization's tendency to

activate selected stages and omit others. Case data were sufficiently detailed to use this classification scheme.

Proposition/Hypothesis Development

The case study presents the researcher's interpretation of events and contextual influences in the organization contributing to development of outcomes report cards. These findings may or may not be similar to events and contextual influences in other organizations also developing report cards. Findings from this case study were compared to patterns of organizational behaviors relative to report card development identified through the review of extant literature. Comparison of case study data with the literature offered two opportunities for formulation of research propositions or hypotheses. First, where case study data were consistent with reported literature, general propositions or hypotheses were developed. Second, identifying differences between the case study findings and the literature generated contingency propositions.

Summary

This chapter has restated the primary research questions investigated using a case study methodology. The research site and the rationale for selecting the site were described.

Methodologies for collecting, presenting, and analyzing data were presented. Strategies for enhancing the credibility of the study were discussed. As this study was exploratory in nature, the research products are a narrative description of findings, analyses of data collected, and proposed hypotheses for future research.

CHAPTER 4

ANALYSIS OF QUALITATIVE DATA: THE CASE STUDY

The purpose of this case study was to identify and describe the decision-making processes used in one hospital to develop a report card of indicators that portray outcomes of organizational performance. The description draws on data obtained from interviews, observations, and archival documents to provide answers to the four research questions. The case reports the organizational factors that placed this issue on the organization's strategic agenda. Key players who influenced the process are identified.

An annotated list of associates interviewed and interview questions referenced to the primary research questions are presented in Appendix A and Appendix B, respectively. Corroborating archival documents are listed and annotated in Appendix C.

The Case Site

St. Vincent's Hospital, established in 1898 by the Daughters of Charity (DOC), is the oldest hospital in Birmingham, Alabama. The hospital and the founding religious

order have rich histories of service to the sick and poor, evidence of a clearly defined mission that remains viable.

Historical Perspective

The DOC was organized in early 17th century France as the first uncloistered women's order in the Catholic Church. These pioneers in care for the sick and poor have grown to become the largest religious community of women in the world with ministries in health care, education, and social work. Today, the Daughters of Charity National Health System (DCNHS), with more than 50 facilities organized into four geographic regions, is the largest religiously sponsored not-for-profit health system in the United States. St. Vincent's Hospital is one of 11 acute care hospitals in the nine-state DCNHS East Central Region headquartered in Evansville, Indiana.

St. Vincent's Hospital began its health care ministry in Birmingham in a private residence and moved to a permanent 100-bed facility at the current location in 1900. The hospital-sponsored nursing school was opened that same year under the direction of Sister Chrysostom Moynahan, the first registered nurse in the state of Alabama.

Over the years the physical facilities have been renovated, additions built, and buildings re-constructed as ancillary and clinical services were added or expanded. Major developments are shown in Table 5.

Table 5

Timeline of St. Vincent's Growth and Expansion

Year	Construction Event
1900	• Original facility built at current site
1911	• Wing added
1920	• Entire hospital renovated • Radiology and Pathology Departments added
1950	• East Wing opened
1972	• Original hospital replaced; 305 beds
1975	• Professional Office Building I opened • Parking Deck I opened
1978	• Ancillary department expansion • East Wing replaced
1979	• Parking Deck II opened
1981	• Barbara Ingalls Shook Pavilion (West Wing) opened; increase to 338 beds
1987	• Professional Office Building II opened
1988	• Maternal and Child Center opened with eight Labor/Delivery/Recovery rooms • Outpatient Rehabilitation Center opened • Occupational Health Clinic Opened
1989	• Pediatrics unit opened • Bruno Cancer Center opened • Child Care Center opened

Table 5 (Continued)

Year	Construction Event
1991	• Surgery wing renovated and expanded • Parking Deck III opened
1992	• Bruno Heart Care Center opened • Bruno Rehabilitation Center opened • Professional Office Building III opened
1994	• Occupational Health Clinic II opened
1995	• Pain Center opened • Primary Care Centers opened • Alabama Neurological Institute opened
1996	• Diabetes Center opened • Parking Deck IV opened

Dedication to growth and improved service continues to date as evidenced by the current building program for a 300,000 square foot facility to house a new Women's and Children's Center. The facility will include surgical rooms for Cesarean deliveries, labor/delivery/recovery/postpartum suites, and a 12-bed pediatric unit. It is anticipated that several physician practices specializing in obstetrics, gynecology, and pediatrics will be located in the Center, which will also include a 600-space parking deck and a 13,000 square foot Conference and Education Center.

Current Operating Environment

At present, St. Vincent's Hospital staffs and operates 290 of its licensed 338 inpatient beds and 65 bassinets. An

active medical staff of 268, many of whom lease office space in the three professional office buildings on the St. Vincent's campus, and an additional 386 courtesy staff physicians provide health services in more than 50 specialties and primary care. St. Vincent's service lines include centers of emphasis in Women's and Children's Health, Oncology, Neuroscience, and Cardiology. A home health program, two occupational health clinics, four primary care clinics, a child care center, and a pharmacy are operated through the Seton Corporation of North Alabama, a not-for-profit corporation. Utilization data from 1995 are shown in Table 6 to illustrate the volume of services provided to the community.

Table 6

St. Vincent's Hospital 1995 Utilization Data

Service Category	Volume
Inpatient discharges	16,999
Births	2,284
Emergency visits	16,513
Home health visits	833,355
Outpatient visits	66,197

Although St. Vincent's has matured into a multi-focus delivery system providing technologically advanced health care in a competitive metropolitan market, the tradition of patient-centered care remains pivotal to the corporate mission. A strong commitment to quality care for the community served is clearly illustrated by the core values of the DOC, summarized as the following: "The charity of Jesus Christ crucified urges us to respect, quality service, simplicity, advocacy for the poor, and inventiveness to infinity." Associates are encouraged to live the values, and leaders strive to model this expectation.

Organizational Structure

St. Vincent's is governed by an eleven-member Board of Directors (BOD) composed of five Daughters of Charity (including the BOD Chair), three local business executives, one physician, the President of Providence Hospital (a DOC facility in Mobile, Alabama), and the President/CEO of St. Vincent's, Mr. Vince Caponi. As the number of women in religious vocations has decreased, the DOC have prepared themselves predominantly for governance and pastoral care roles. Although there is a strong DOC influence at the BOD and corporate levels, the only Daughter in an executive

position at St. Vincent's is the Vice President for Mission Services, Sister Virginia Delaney.

St. Vincent's organizational chart, shown in Appendix E, reflects a traditional line structure. As President and Chief Executive Officer, Mr. Caponi is concerned primarily with the organization's interface with the external environment. In addition to his organizational leadership responsibilities, Mr. Caponi contributes his expertise to community service agencies and other organizations through board and committee memberships.

The CEOs in DOC facilities serve as BOD members in another DOC facility. Mr. Caponi is a member of the BOD of St. Vincent's Hospital in Indianapolis, which released a report card instrument in 1996 with the approval of its BOD. The external focus of St. Vincent's CEO is noted in the following quotations from interviews with other executives:

> Vince is focused outside the organization--leadership in the community and negotiating our alliance relationships.
>
> Vince wants St. Vincent's to lead the community in making our information available.[1]

---

[1] All indented blocks in this chapter are paraphrases or edited composites of responses to interview questions posed to the individuals listed in Appendix A.

Most committees and chartered work groups at St. Vincent's have multi-disciplinary membership. There are some examples of matrix management in clinical areas, and some self-directed work teams are in developmental stages. The top tier vice presidents are responsible for administrative functions in both the hospital and Seton Corporation. Directors and managers below that level have operational responsibility for hospital divisions.

Executive Team

Prior to September 1996, the Chief Executive Officer and his five direct reports--the Chief Operating Officer, the Chief Financial Officer, the Vice President for Medical Affairs, the Vice President for Planning and Marketing, and the Vice President for Mission Services--comprised the Strategic Issues (SI) group, the key circle of decision makers in the organization. The SI group, plus five other vice presidents, the Executive Director of Seton Foundation, and the Executive Director of Seton Home Health formed the Executive Leadership Team (ELT). In recent years, the ELT primarily served a bi-directional information transmission role by providing information to the SI and disseminating

information throughout the organization via the managers, committees, and work groups under their direction.

During the current strategic planning cycle, the SI group was eliminated and the ELT was renamed the Executive Team (ET). The ET meets weekly with an agenda of action items. The revised leadership structure is expected to improve the information base supporting decision-making and to foster decision buy-in due to increased participation in the information analysis and decision-making process.

The Strategic Agenda

The strategic agenda at St. Vincent's is dominated by local initiatives but also is reflective of directives from the regional and national corporate levels. Planning documents include information about DCNHS and the East Central Region goals that require support at the local facility level. Strategic planning is an on-going process with major directions set by the BOD through two-year plans.

Strategic initiatives for a given fiscal year are stepped down to the operational level through the Primary Organizational Objectives (POOs). The POOs generally consist of 10 to 12 broadly stated objectives in several categories. For fiscal year (FY) 1997, ten POOs were specified in four

categories: mission services, programs and services, medical staff, and managed care.

After Board approval, the POOs are assigned to members of the Executive Team for implementation. The responsible executive may charter work groups or use other mechanisms to achieve the stated objectives. As a separate process, the POOs are distributed to managers and directors to guide departmental and personal goals for the coming fiscal year. A step-down process is employed to ensure that goals and objectives throughout the organization support the current strategic initiatives.

The Report Card as a Strategic Issue

The FY 1997 POOs, distributed in June 1996, formally stated an intention to create and disseminate a report card instrument. POO #10 (an identification number, not a priority ranking) reads:

> St. Vincent's healing ministry and tradition of service to the poor and underserved will be regularly shared with payers, employers, public and internal audiences (associates and physicians) by distributing a report card instrument that highlights value derived from St. Vincent's centers of emphasis as well as surgical services, outpatient services, emergency department, and primary care.

Interview comments from members of the ELT indicated that designating this objective as a POO was championed at the executive level by Deeni Taylor, Vice President for Planning and Marketing.

> Deeni Taylor has really taken on the stakeholder report card strategy.
>
> Deeni Taylor pushed for setting report card development as a POO for FY 1997.

Creating a report card for public dissemination will integrate several strategic initiatives in the hospital. These initiatives and selected prominent activities in each are illustrated in Figure 3. Although the objectives driving the various initiatives were diverse at their inception, related activities converged over time and culminated in a perceived need to develop an outcomes report card.

Continuous Improvement Initiatives

In 1991, St. Vincent's leaders began a carefully planned reinforcement of an organizational culture conducive to enterprisewide commitment to continuous quality improvement (CQI). In the initial stages of the transition from a traditional quality assurance approach to CQI, associates received training in quality improvement tools and techniques using a problem-solving process developed and marketed by

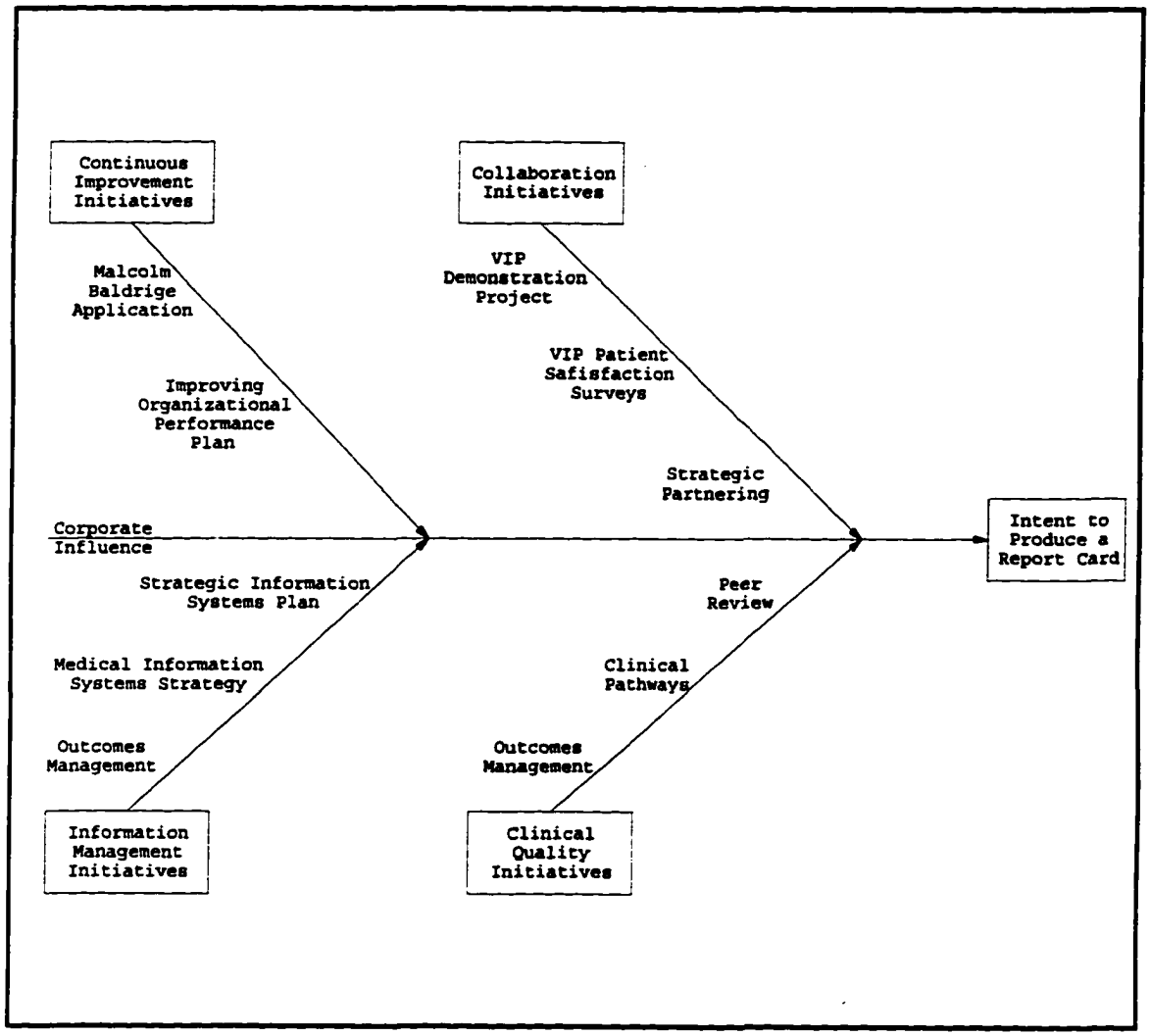

Figure 3. Initiatives converging to place report card development on the strategic agenda.

Baxter Health Care, Inc. More importantly, leaders and middle managers consistently promoted the quality vision and stimulated thinking about opportunities for improvement in daily work activities. The Baxter product was discontinued in 1994 when the ELT adopted an internally developed conceptual framework to guide continuous improvement efforts.

The quality vision and principles which form the conceptual foundation of the Leadership Plan for Improving Organizational Performance were approved by the President/CEO in November 1993. The quality vision, inspired by the mission and values of the DOC, commits the hospital to "lead[ing] in forging relationships to provide compassionate health services of the highest quality and value while promoting the responsibility of each individual." This vision was grounded in the principles presented in Table 7, which are reiterated in the FY 1997 Plan for Improving Organizational Performance.

The Continuous Improvement Board (CIB) was chartered by the ELT in 1991 to coordinate the CQI training initiative. Currently, members of the CIB are appointed annually by the COO and the group's focus has enlarged to encompass all operational quality improvement activities. Michelle Hood was recruited as St. Vincent's COO in 1993. She was frequently

Table 7

St. Vincent's Quality Improvement Principles

Quality Improvement Principles
• Leadership drives the process
• Decision making at the lowest level
• Teamwork/collaboration
• Customer satisfaction
• Competent staff
• Simplicity of process

acknowledged in interviews with work group members as instrumental in moving the ET and the CIB to higher levels of achievement in CQI.

> The major impetus for the CIB was when Michelle joined.
>
> Without Michelle, we'd be in a big muddle-puddle.

Through Ms. Hood's influence, the ET began an aggressive self-education program to increase their personal skills in employing and deploying quality management principles and tools.

Malcolm Baldrige National Quality Award application. The CIB began investigating processes for developing organizational outcomes indicators in 1994. The Malcolm

Baldrige National Quality Award (MBNQA) criteria were considered as an information source. In February 1995, Michelle Hood and Maureen Cook, the CIB facilitator, attended the Quest for Excellence Conference sponsored by the American Society for Quality Control where the proposed health care pilot of the Baldrige Award was announced. The CIB determined that feedback from participation in the pilot would be an excellent mechanism for organizational self-analysis.

The hospital submitted one of the 46 applications received for the 1995 Baldrige pilot. Only 13 organizations (including St. Vincent's) were selected for second stage review. St. Vincent's was not selected for a site visit, a distinction awarded to only three facilities.

At the time the Baldrige application was completed and submitted for evaluation, the members of the CIB acknowledged that current activities were insufficient to meet all criteria. The CIB proposed to develop a two-year, single purpose plan to achieve compliance with both the Baldrige criteria and the JCAHO standards for improving organizational performance.

The CIB used a crosswalk developed by the Institute for Healthcare Improvement to identify commonalities between the

MBNQA criteria and the JCAHO standards. By comparing known deficiencies in JCAHO compliance and the Baldrige application with the crosswalk categories, the CIB began to establish a framework for action.

Seven small multidisciplinary teams (one for each Baldrige criterion) conducted gap analyses to determine where existing management systems were insufficient to meet the criteria and standards. These analyses were presented at the ELT retreat held July 28-29, 1995. This event marked the first time the ELT as a group had formulated the strategic agenda for performance improvement. Previous performance improvement plans had emerged from the CIB and were accepted by the ELT. Although most members of the ELT serve on the CIB, this is an important distinction.

At the retreat, an affinity methodology was used to group recurring themes from the gap analyses into seven action objectives. Six of these objectives formed the foundation of the FY 96-98 Plan for Improving Organization Performance. The final objective, to update the strategic information systems plan, was addressed through an existing structure and a single-purpose plan. The six strategies, responsible parties, and timetables were summarized in the visual display shown as

Figure 4. This diagram appears to have been widely distributed, as it surfaced repeatedly as an attachment to documents reviewed.

The CIB sent an open request to all associates of St. Vincent's via an internal memorandum seeking volunteers to participate on work groups chaired by the designated CIB leaders. Volunteers were supplemented by purposeful appointments at the discretion of the work group leaders. At the time this case was developed in late October 1996, one work group had completed its charge, and a second was near completion. The remaining four were still active.

The work groups were established to create an infrastructure to implement and manage performance improvement activities at the operational level. Most groups did not contribute directly to the initial report card project. Potentially, however, products and recommendations emerging from each of the work groups will be implemented to establish an outcomes reporting process responsive to stakeholder and organizational needs.

Collaboration Initiatives

As the oldest hospital in Birmingham, St. Vincent's was an early pioneer in collaborating with area employers to plan

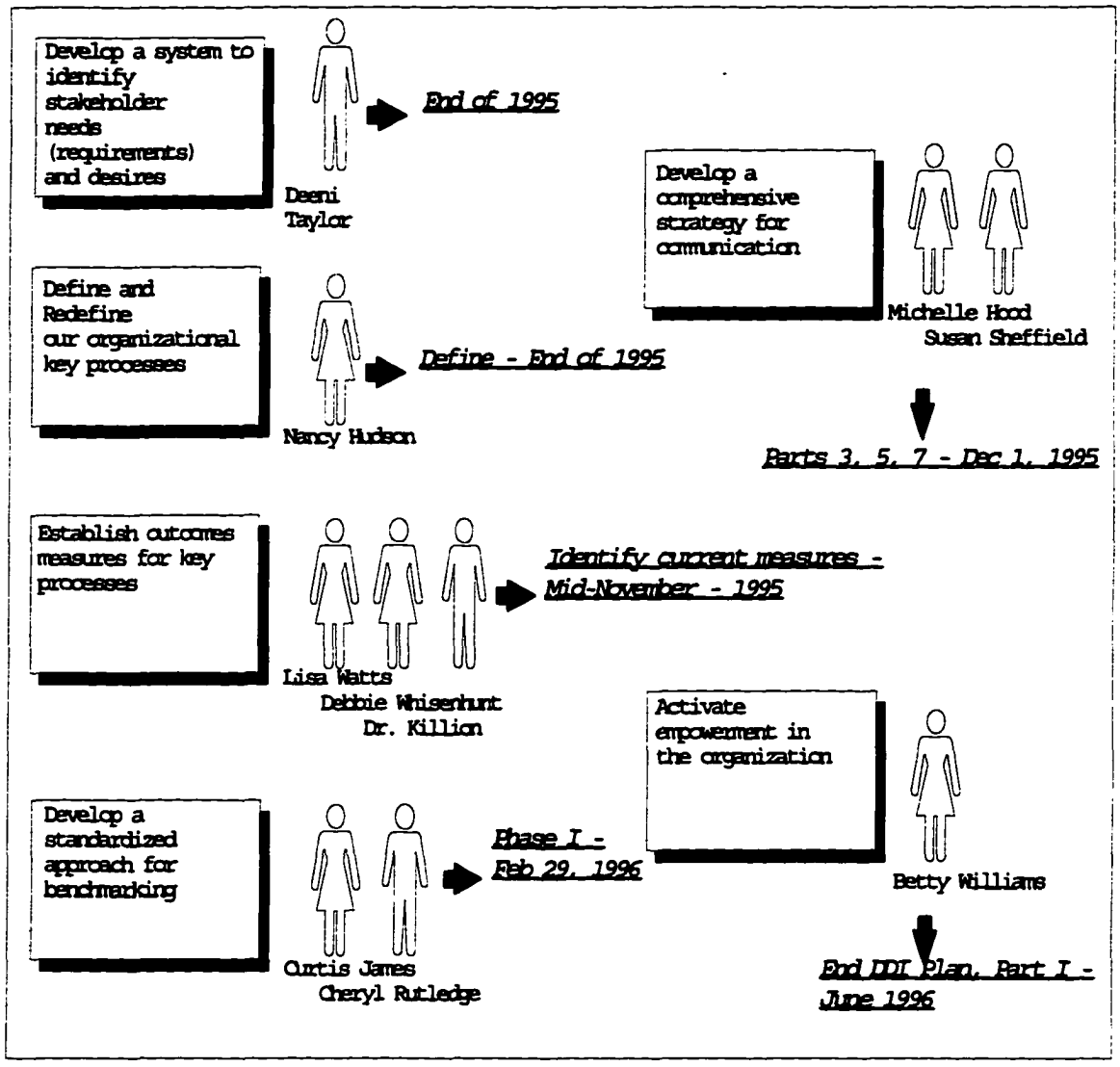

Figure 4. Diagram of leadership planning for IOP.

and deliver health services, notably in the coal and steel industries. St. Vincent's continues to work with other area providers and businesses to improve the quality and efficiency of health care delivery in the market area through direct intervention and as a coalition participant.

The Alabama Healthcare Council (AHC), a coalition of 56 businesses representing 250,000 insured lives, is a strong proponent for market-based health care reform in Alabama. In 1991, the AHC initiated the Value Improvement Partnership (VIP) to promote value-based purchasing decisions through standardized data from participating providers. St. Vincent's was 1 of 11 hospitals that participated in the VIP, which involved several related projects.

The Data Demonstration Project. A significant component of the VIP was the Data Demonstration Project, a multi-year data collection effort to produce severity-adjusted clinical outcomes data for participating hospitals. Two diagnostic categories, pneumonia and cesarean-section deliveries, were studied.

The AHC contracted with MediQual to abstract data from patient medical records and to analyze the data collected. MediQual, a private consulting company specializing in disease

management tools and services, claims to maintain the largest clinical repository in the world. The project was conducted in two phases during 1994 and 1995. Data from 1992 and 1993 were collected during Phase I in 1994. MediQual produced aggregated reports with hospital identifiers masked. These reports were made available to all participating hospitals. During Phase II, 1994 data were collected and reports were prepared with hospital identifiers intact.

The AHC planned to release the Phase II reports in a public forum during March of 1996. Hospital personnel who remembered the negative publicity generated during the Medicare mortality data releases in the 1980s were understandably ambivalent about the pending reports. Although the hospitals were voluntary participants and supported the objective to make data available to employers, there were concerns that the reports would not be recognized as experimental and that unresolved methodology issues would be addressed inadequately. In consideration of the concerns voiced by hospital representatives, the reports were distributed to the participating hospitals, and identifiers were made available to AHC members during a scheduled meeting

in May 1996. Media representatives were not invited, and no public release was made.

St. Vincent's Director of Marketing, Ms. Traci Van Dorselaer, was one of several associates who participated in various projects associated with the VIP. In anticipation of the public release, she planned responses to questions about St. Vincent's data which might be posed by the media. During her deliberations, she began to consider the potential value to be derived from St. Vincent's communicating its own outcomes information. The VIP report would include only two outcome indicators: pneumonia mortality and cesarean-section delivery rates. These data, while meaningful, would provide limited information to support purchasing decisions. St. Vincent's information systems contained comprehensive data that could be exploited to communicate a more complete picture of the organization's capabilities and performance.

The Picker Institute surveys. A second collaborative project initiated through the VIP was selection of a standard methodology to measure patient satisfaction in the participating hospitals. Although St. Vincent's had a patient satisfaction survey process in place, they adopted the tool selected by the AHC, a 60-item mailed survey instrument

marketed by the Picker Institute. The Picker/Commonwealth Program for Patient-Centered Care designs and administers surveys to help providers develop strategies for addressing issues raised by patients. The Picker Institute surveys a sample of discharged patients twice yearly and prepares aggregated reports for the hospital. St. Vincent's elected to self-survey during the alternate quarterly periods. The AHC project was delayed due to contract issues, but St. Vincent's completed two survey cycles with the Picker instrument during the fourth quarter of 1995 and the second quarter of 1996.

Strategic partnering. St. Vincent's and DCNHS-EC signed a Memorandum of Understanding in April 1996 with Baptist Health System (BHS). The BHS is a multi-facility system which owns or operates 11 inpatient hospitals and more than 40 outpatient facilities in Birmingham and the surrounding counties. The stated goal of the alliance is to operationalize a community-based network to improve the health status of the community, minimize duplication of services, and achieve cost reductions in preparation for capitated payment plans. Previously, St. Vincent's had investigated partnering opportunities with other health care organizations in the

Birmingham area. Partner relationships are evaluated on the basis of values compatibility in addition to strategic criteria.

As with other strategic activities, St. Vincent's leaders have considered the potential impact on its strategic partner from releasing an outcomes report card independently. The intent to release a report card will be communicated to BHS executives prior to publication.

Information Management Initiatives

Executive responsibility for information resources is vested in Curtis James, the CFO. His role in building the organization's information resources is perceived as primarily strategic, not operational. The dynamic nature of technology-based information resources requires strategic planning toward a vision rather than planning based on knowledge of current capability. Interviews with associates and consultants involved in information resource planning suggest that Mr. James has that perspective:

> One of the strengths St. Vincent's has with regard to information systems, is what's happening in Curtis's head.
>
> We want to use information technology as a competitive advantage.

At present, St. Vincent's relies on vendor application packages to support administrative and clinical information functions. The hospital information system is configured as a sophisticated network of more than 20 servers and 300 PC workstations and terminals. St. Vincent's historically has used a "best of breed" approach to applications development. Therefore, multiple vendors are represented among the enterprisewide, clinical, administrative, and decision-support systems.

Most application systems are planned for and supported by the Health Information Systems (HIS) Department, directed by Ms. Jackie Kennedy. Under her guidance, the information systems are migrating from single focus applications toward enterprisewide integration to culminate in a data repository. This type of information system structure requires reliance on a single vendor for most information technology and collaborative relationships with other vendors to develop interfaces between legacy systems and the data repository.

These information resource management capabilities are perceived as essential support in providing health service delivery across a complete continuum of care. Secondarily, a data repository facilitates outcomes reporting by making a

greater number of data elements more accessible. A repository eliminates the need to transport data between systems or collect redundant data. Additionally, availability of integrated data from all provider units will enable development of indicators that measure outcomes associated with the continuum of care.

Several information strategies have been addressed as separate functional areas to fast-track implementation. Notable examples of this approach include document imaging, integrating physician office systems with the hospital systems, and outcomes management. Each of these areas reports to the CFO but not through the Director of HIS.

Strategic information systems plan. St. Vincent's strategic information systems plan (SISP) is a multi-year document developed with the assistance of American Management Systems, Inc. (AMS), a consulting firm specializing in technology planning. The three-year plan approved in 1994 identified nine essential IS capabilities which must be achieved to support the organization's business strategy. The plan defined 16 projects in five key areas: (a) implementing patient-centered systems; (b) integrating systems with the community based network; (c) implementing decision support

systems; (d) strengthening information resources management; and (e) operating and enhancing the application systems, hardware, and computer network. Several time- and resource-intensive projects were directed at planning for and implementing a clinical data repository.

A plan review and update in April 1996 validated the nine required system capabilities as appropriate. However, four projects were no longer applicable due to changes in the business strategy, most notably a change in alliance partners. The revised plan reinforced planning for the clinical data repository, enhancing capability to monitor cost and quality outcomes, and preparing to share data with the community-based network and others.

Medical Information Systems Strategy. St. Vincent's leaders have been proactive in leveraging information systems technology to initiate partnering strategies with the medical staff. The strategic goal, as stated by Curtis James, is for St. Vincent's Hospital to be the medical staff's "partner of choice" for their information systems needs. The plan is to market a suite of IS applications through the hospital's HIS department to physician office practices. Planned applications include a computerized health record linked with

the hospital clinical data repository, document imaging, clinical applications, and transcription services.

This strategy is being implemented through a multidisciplinary group, the Medical Information Systems Strategy (MISS) Committee. This committee, chaired by Mr. Kenny Hartley, includes representatives from several professional disciplines, most of whom have operational responsibility for the applications to be offered. A physician report card to support internal benchmarking by the medical staff is among the projects/activities on the MISS agenda.

Outcomes management. For the past several years, Ms. Susan Jennings, Director of Outcomes Management, has used severity-adjusted financial data to examine patient outcomes achieved with the hospital's clinical pathways. Her clinical counterpart, Ms. Debbie Whisenhunt, Director of Quality Review, has collaborated in this initiative.

Data from the financial and quality review systems are transferred into a decision support system and manipulated to investigate individual physician practices. By selecting diagnoses and procedures that are high volume, high cost, or low reimbursement areas for study, the hospital can maximize

the financial value of learning potential. Individual cases are examined to isolate costs relative to specific services or medical practices. The cost data are then compared to clinical outcomes.

For example, a surgeon who consistently bills for less time in the operating room or who uses fewer prophylactic antibiotics than other surgeons for the same procedure might be identified. His cases would be examined to identify any greater incidence of post-surgical complications, higher infection rates, or more unplanned returns to the operating room that were evident in other physician profiles. Data analysis in this manner has both clinical and financial benefits. Clinically, the methodology can highlight best practices to benchmark and facilitate pathway development. Financially, it helps demonstrate value by showing quality outcomes associated with lower costs. The goal of the outcomes management program is to achieve an optimal balance among clinical outcomes, financial outcomes, and patient satisfaction.

Clinical Quality Initiatives

The Quality Review Department is under the purview of Dr. Wayne Killion, the Vice President for Medical Affairs. Ms.

Debbie Whisenhunt manages the traditional quality assurance functions of the medical staff and ancillary departments. Review efforts in the department address both clinical quality and resource utilization.

Peer review. The medical staff conducts peer review activities within its self-governance structure. Several medical staff committees investigate quality of care issues through process analysis of selected procedures and diagnoses. The process of care is evaluated through the complete continuum, from the patient's admission to the system through post-discharge follow up. Associates and professional staff in ancillary departments participate in the review process.

Knowledge about individual physician performance gained through the peer review process is communicated within the medical staff reporting structure. This knowledge is considered in the bi-annual professional staff credentialing process. Process improvement opportunities are addressed using the CQI methodologies promoted by the CIB.

Commitment to continuous improvement of delivery processes at this level has been acknowledged as a critical success factor in evolving toward a managed care environment and outcomes management capability. Peer review activities

are expected to continue to provide support for future quality management initiatives.

Clinical pathways. St. Vincent's medical and administrative staffs have been working to develop and implement clinical pathways since 1993. Pathways are developed by multidisciplinary groups employing both clinical and resource utilization data. To date, 17 clinical pathways have been implemented.

In 12 pathways, changes in the diagnostic and treatment processes have decreased the average length of stay (LOS) and average cost per case. During the development of one pathway, clinical evidence dictated the provision of additional services, and delivery costs actually increased following pathway implementation. Additionally, this pathway represents a small volume diagnostic category with little opportunity to realize benefits from economies of scale. The expenditure of organizational resources to develop this pathway denotes a commitment to quality improvement distinct from a goal of cost containment.

Data have been aggregated for 6-12 month periods prior to implementation of each pathway and are updated as current data become available to illustrate trends in cost and resource

utilization. These reports are shared with the medical staff through the quality review committees.

The Decision Process to Develop the Report Card

The chronology of activities employed to create the St. Vincent's report card will be discussed with reference to the four primary research questions, which are restated here for convenience.

1. How were stakeholders for outcomes information identified?

2. How were stakeholders outcomes information needs determined?

3. How were internal information requirements to produce desired information determined?

4. How were owners of the required information identified?

Identifying the Stakeholders

This step provides an example of how activities from the various initiatives overlapped. Stakeholder identification began within the framework of the CIB's strategies to improve organizational performance and was continued by the Report Card Work Group.

Stakeholder Work Group. In the Improving Organizational Performance Plan, the charge to "develop a system to identify stakeholder needs (requirements) and desires" was delegated to Mr. Deeni Taylor, Vice President for Planning and Marketing. The problems identified in the CIB/ELT gap analysis in this category which emerged as report card issues are shown in Table 8.

Table 8

Stakeholder Gaps Which Emerged as Report Card Issues

Gap Identified
• No knowledge of criteria which make a difference in employer decisions.
• No method/approach for telling our story and sharing our successes with business and others

In October 1995, Mr. Taylor convened a work group of four associates via a memorandum that defined the group's charge, suggested various stakeholders for consideration prior to the meeting, and specified the imposed time frame for completing the assigned objectives. Two other associates were added to the group at later dates, and one associate terminated employment prior to conclusion of the assignment. Only one

member other than Mr. Taylor attended all four work group sessions.

The work group participants brainstormed a list of stakeholders inclusive of those suggested in Mr. Taylor's memorandum. Each stakeholder group was discussed and those that were related or overlapping were identified. For example, local businesses, employers, and insurance payers were grouped. The group determined that four categories of "key" external stakeholders existed: (a) patients, (b) employers/payers, (c) physicians, and (d) the community at large. St. Vincent's associates constituted a fifth key group. These categories were not prioritized.

The work group report and recommendations were presented by Mr. Taylor to the CIB at the December 1995 meeting. The report was accepted as presented. Notable recommendations included acknowledging the four key stakeholder groups and involving employers in efforts to identify criteria to assist in making decisions about using St. Vincent's services.

Outcomes report cards were discussed generally in a work group meeting as examples of communicating with stakeholders. However, there was no evidence that the work group

participants considered recommending development of a St. Vincent's report card.

Report Card Work Group. The categories identified by the Stakeholder Work Group were accepted by the CIB and organization leaders as correct in the generic sense. However, more specificity was necessary before meaningful information could be collected to guide decision making about outcomes reporting. Mr. Taylor assigned the responsibility for identifying representative stakeholders to query about information needs to Traci Van Dorselaer, the Director of Marketing. She established the Report Card Work Group in May 1996. This group became the primary agent for implementing the action steps necessary to achieve the POO to distribute a report card.

Much of St. Vincent's market research is conducted by New South Research (NSR), a local company. In June, Ms. Van Dorselaer met with Mr. Jim Jager, NSR President, to request a proposal for investigating stakeholder information needs. During this and subsequent discussions, the target employer group was defined as members of the Alabama Health Care Council and companies on an internally-developed list of market prospects with more than 100 employees. This group was

ranked as first priority. The consumer group was considered globally as patients, potential patients, and their families. This group was ranked as second priority. St. Vincent's associates were designated as third priority, and physicians, defined as the active medical staff of St. Vincent's Hospital, ranked fourth. The "community at large" was re-prioritized to fifth position and tabled from consideration at this time. These stakeholders and their priority rankings are illustrated in Figure 5.

Identifying Stakeholder Information Needs and Wants

A focus group methodology was determined to be the most efficient and appropriate approach for investigating what outcomes information employers and consumers wanted. It was determined that existing communication channels for physicians and associates would be explored as alternatives to additional focus groups.

Focus groups. Three focus groups were convened: a group of employee benefits coordinators on August 20, 1996, a consumer group on August 21, 1996, and a second employer group on September 10, 1996. The second employer group was deemed necessary because recommendations from the first group were not congruent with previous information gleaned through St.

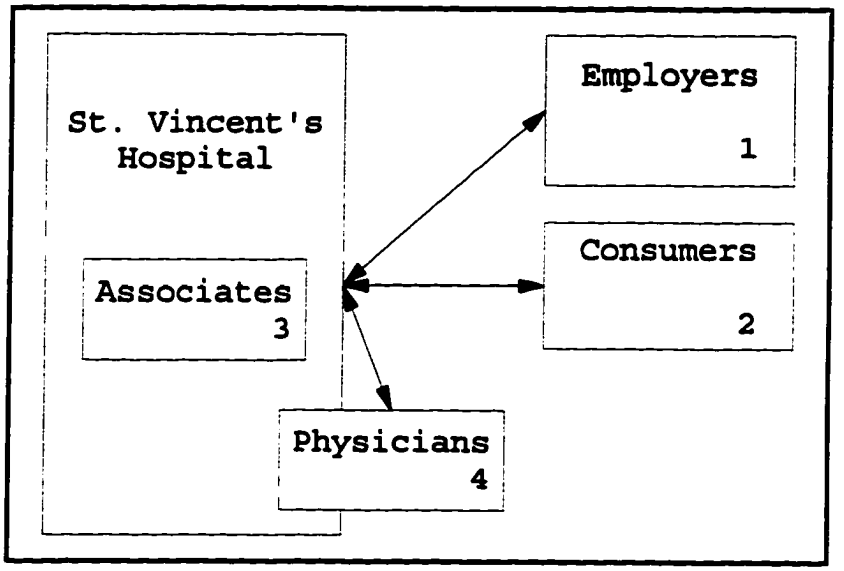

Figure 5. Stakeholder map and priority rankings.

Vincent's participation in the Alabama Healthcare Council. All focus group sessions were held at the NSR offices in Galleria Towers. Many of the work group members observed one or more of the focus group sessions and participated in the debriefing sessions with the moderator.

The moderator's guide was jointly developed by NSR and St. Vincent's representatives. The questions were designed to introduce the concept of hospital report cards and to explore the participants' perceptions and attitudes regarding hospitals' self-reporting performance and outcomes information. The moderator encouraged participants to define desirable information and to describe preferred presentation formats. The issue of credibility of self-reported information was probed extensively.

Focus group respondents agreed that quality of care is an extremely important factor in choosing a hospital, but unique aspects of care or service delivery could not be isolated as indicators. Rather, the concept was described as a bundle of experiences that covered the continuum of interaction with the organization. Identified points on the continuum of interaction ranged from the hospital's reputation in the community to the billing process after discharge.

The final report prepared by NSR staff identified the top information preferences for each stakeholder category as shown in Table 9. The indicators are listed in perceived priority order.

Table 9

Stakeholder Information Preferences

Benefits managers	Individual consumers
1. Quality of service/care	1. Physician panel
2. Physician panel	2. Emergency care
3. Cost	3. Hospital reputation
4. Statistical information	4. Quality of care
5. State-of-the-art technology	5. State-of-the-art technology

The respondents were receptive to the idea that a hospital would voluntarily report outcomes information through public media. However, credibility of self-reported information was a significant issue within all three groups. In general, the respondents believed that publication or validation of report cards by a source external to the hospital was necessary. Secondarily, they believed that comparative data were important. Indications were that local

market comparisons or reference to a national or regional norm would be acceptable.

Identifying and Evaluating Information Resources

Upon receipt of the preliminary focus group report, work group participants reviewed the top information interests and the credibility caveats which emerged from the groups. Selected members were asked to investigate available indicator data which had been externally validated or had comparative data available in the identified information categories. These data samples were used to construct a mock report card used as a discussion vehicle in the second benefits managers' focus group.

After reviewing the final summary report for all three groups, the work group decided to develop the concept underlying the mock report card into a prototype for recommendation to the BOD. Responsible members brought drafts of current data to the entire work group for consideration.

Identifying Information Owners

The focus groups communicated desirable outcomes information and accompanying requirements for external validation and comparability of indicator data. The work group acknowledged these requirements and established

indicator selection criteria accordingly. The selection criteria established significant constraints in designating the outcomes indicators to be reported. Several data sources that provided useful information for internal decision making and quality improvement offered neither comparative data nor external validation.

In effect, the selection criteria identified the data location and the "owner" of the information systems. Table 10 reports this information for each of the indicators proposed for inclusion on the report card. The rationale for indicators selected is presented following the table.

Table 10

Ownership of Information Required to Produce the Report Card

Performance domain and indicator(s)	Information system(s)	Information system owner(s)
Quality of Care		
*Patient satisfaction	Picker	External owner
*Clinical pathway data	MIDAS	Quality Review

Table 10 (Continued)

Performance domain and indicator(s)	Information system(s)	Information system owner(s)
Physicians		Medical Affairs
*Total number of active & associate physicians	Doctor Masterfile	
*Board certified or board eligible	Custom FoxPRO database	
*Credentialing process narrative description	Text processing application	
Cost	Trendstar	Outcomes Management
*Description of five clinical pathways		
*LOS comparisons pre- and post-pathway		
*% Change in charges since implementation of pathway		
*Severity-adjusted mortality rates		
Hospital reputation	MedTrax	External owner
*Ranking for categories associated with physicians or pathways		

Table 10 (Continued)

Performance domain and indicator(s)	Information system(s)	Information system owner(s)
Access		Marketing
*Participation in health plans		
*Primary care clinics		
*Subspecialty clinics		
Mission	Text processing application	Administration Marketing
*Narrative statement of community health ventures		
*Core values		
*Mission statement		

Quality of Care/Service. The focus group participants gave little specific direction for indicators of quality. Patient satisfaction surveys were assumed to measure quality indirectly, and survey data were considered important. The report card included data from the two Picker surveys. Comparative data will be available from other hospitals participating in the AHC. The survey data are collected and processed by the Picker Institute, which maintains the database. The variables included in the report card were abstracted from hard copy summary reports.

In the absence of a clear directive from the focus groups, the work group chose to report some of the clinical indicators currently collected in the peer review process as quality of care measures. They selected some of the measures given by participants as examples of "statistical information" and reported the most recent data for the clinical pathways used to illustrate cost data. Adverse events occurring during patient care episodes are abstracted from individual patient records by nurse reviewers and entered into the MIDAS system, a decision support software. Incidence is calculated as a ratio of a given adverse event for a specified patient population. MIDAS data for individual physicians is transferred to the Medical Affairs system for use in credentialing procedures.

Physicians. Physicians must provide current information about their training, education, board certification status, and other proofs of clinical competency for evaluation prior to being granted the privileges of medical staff membership. Evaluation and reappointment occurs in 2-year cycles. Data from paper files for each physician are abstracted into the customized FoxPRO database maintained by the Medical Affairs Office. This system is not maintained by the HIS Department

and is not linked with other systems. Although the medical staff is self-governing, hospital privileges are granted to individual physicians by the BOD. Credential files, therefore, belong to the hospital. This indicator was reported as a percentage of the active and associate medical staff board certified in a speciality or subspecialty.

Work group members were concerned that a value less than 100% might be perceived as negative. They thought the indicator would be more useful if they included information about how the credentialing process worked. The application and review procedure was presented in a list format to avoid the text length rated negatively by focus group participants.

Cost. As expected, benefits managers were concerned about the cost of health care services used by their employee beneficiaries. Although they were knowledgeable about the incomparability of charge data across providers, the fact remains that from the purchaser perspective, cost is the provider's charge or negotiated contract fee. Clinical and financial data have been integrated and severity adjusted only for the clinical pathways. As the pathways represent high volume Diagnosis Related Groups and high cost or otherwise

problematic services, the work group expected these indicators to provide meaningful data to benefits managers.

Demographic and billing data are imported from the Admission/Discharge/Transfer component of the SMS system into Trendstar, an executive information system used by finance personnel in the Outcomes Management Department by monthly tape transfer. Clinical data from the UB-92, the uniform billing document, are transferred by quarterly tape file from the financial management component of the SMS system into the Inforum system, which severity adjusts the data. The Inforum product is linked to Trendstar.

Hospital Reputation. This category of information was considered important by many focus group participants, although it did not rank among the top five for benefits managers. The work group decided to include this indicator for three reasons: (a) it could be considered a proxy for quality, (b) comparative data were available, and (c) it was collected and reported by an agent external to St. Vincent's. MedTrax is a subjective assessment of area hospitals conducted as a telephone survey by the Baptist Health System. The data are available for purchase by any hospital. The report is not automated and relevant data must be abstracted.

Access. The benefits coordinators considered access important but not as a "top five" category. Although the consumers focused on board certification as a measure of medical staff competence, the work group members acknowledged that an adequate number of primary care gatekeepers was an important factor in managed care plans. They elected to communicate the scope of St. Vincent's participation in managed care plans and the number and location of community-based clinics sponsored by St. Vincent's as access indicators.

Mission. St. Vincent's is a mission-driven organization that places great emphasis on exhibiting the core values in all ventures. The information provided in this category is included in most documents produced by St. Vincent's for public dissemination.

Endorsement at the Board Level

A prototype of the proposed report card was developed for presentation and discussion at the October 15, 1996, Executive Team meeting. Following endorsement by this group, the report card was presented to the Board of Directors for approval on October 25, 1996.

Deeni Taylor presented a brief summary of the rationale for releasing St. Vincent's outcomes information in a public

forum. He stressed that the initial report card was a voluntary first step to prepare the organization for potential mandatory releases in the future. The mock-up of the proposed report card was shown, and questions were invited. Questions about the frequency of report cards and indicator selection were answered by Mr. Taylor and Mr. Caponi. The BOD offered no opposition to the planned release.

Projects and activities which require medical staff approval are generally presented to the Medical Executive Committee prior to presentation to the BOD. However, the report card was not available in time to do so. The BOD meets on a bi-monthly schedule, and the ET chose to include the report card on the October BOD agenda. The report card was presented to the Medical Executive Committee in early November and, subsequent to their approval, was produced for public release.

Making the Report Card Public

The Marketing group designed and produced the report card document. Prior to public release, the finalized report card was presented to St. Vincent's associates. Mr. Caponi distributed copies of the report card to department-level managers at the Directors' Forum meeting on November 25, 1996.

Individuals attending this meeting shared the information with associates in their departments.

The official public release of the St. Vincent's outcomes report card occurred November 27, 1996. The availability of the report card was reported in both The Birmingham News and The Birmingham-Post Herald. A telephone number was provided to request free copies of the report card. A copy of the report card and a cover letter were direct mailed to large employers (more than 100 individuals) in the market area. A business reply card was included to facilitate requests for additional information or more copies.

Summary

The processes employed by St. Vincent's Hospital to develop and release an outcomes report card were collaborative efforts among many individuals and groups. The leaders and associates in several departments worked diligently to achieve the organization's strategic initiative. This unity of purpose was evident when the researcher questioned several members of the Report Card Work Group and the ET about a discrepancy in names associated with a portion of the report card project. The consistent response was, "It doesn't matter

whose name is on the form; the important thing is that it gets done."

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AND RESEARCH PROPOSITIONS

The purpose of this study was to identify and describe the decision-making processes used in one hospital to develop an outcomes report card. A qualitative methodology, a detailed investigation of a single case, was determined to be the most appropriate approach for conducting the study. Such methodology is particularly appropriate in the early stages of scholarly investigation of an observed phenomenon. The expected outcome from case study research is to place observations made at the case site in a conceptual framework to generate research propositions.

The conceptual framework presented as Figure 1 was derived from review of current literature. The framework suggested four points at which the organization's actions would likely influence the assumptions made and the decision making process(es) employed, and thus potentially influences the content of the report card produced. These points of organizational discretion were established as the primary

questions of interest in this study. Four pairs of research questions were defined as follows:

1. How did the organization identify its key stakeholders for outcomes information? Who are they?

2. How were the key stakeholders' outcomes information needs determined? What performance dimensions do these information needs represent?

3. How were information requirements to generate specific outcomes indicators determined? What criteria were used to select from available indicators?

4. How were owners of the required data and information determined? What information systems contain the necessary data?

The study was designed as a single case investigation to collect information in rich detail surrounding these discretionary points. Detailed data obtained from interviews, documents, and observations were presented in the previous chapter to answer the four specific research questions.

The information collected at the case site provided the following answers to the four pairs of research questions as follows:

1. Key stakeholders for outcomes information were identified in a two-stage process. A work group established as part of the plan for improving organizational performance brainstormed a general list of stakeholder categories. After report card development was designated as a primary organizational objective for the coming fiscal year, a second work group identified and prioritized specific stakeholders, and designated two groups as "key" stakeholders for outcomes information. The key stakeholders are large employers and individual consumers.

2. Key stakeholders' outcomes information needs were determined using a focus group methodology. Three focus groups were convened: two groups of benefits managers representing large employers in the Birmingham market, and one group of randomly selected consumers. All groups were queried to identify performance indicators that represented quality outcomes to the participants, and that were perceived as useful in selecting a health care provider. The preferred information categories communicated by the groups are shown in Table 9.

3. Information requirements to generate specific outcomes indicators were determined by a work group possessing

knowledge of the information resources at St. Vincent's. The work group members examined available data sources specific to each performance domain identified. The criteria used to select from available indicators were those defined by the focus groups as important: external validation of data and/or availability of comparable data from local or national sources.

4. Owners of the required data and information were, in effect, determined by the indicators selected for reporting. Indicator data were stored in diverse, non-linked data bases maintained in functional organizational units. The various information systems in which data elements were stored and the data owners are identified in Table 10.

In addition to answering these specific research questions, the stated overall purpose of this study was to understand more clearly the decision-making process, which subsumed the four specific questions, and to examine the process in its greater context. Therefore, in this chapter, the decision-making process used by St. Vincent's Hospital to develop its report card will be evaluated against similar processes described in the literature, and also will be discussed in relation to specific environmental,

organizational, and leadership characteristics that influenced the process.

A general model for developing and implementing an outcomes report card for public dissemination is proposed. This model draws from extant literature as well as from observations at the case site. Observed differences between the case site and the proposed model are discussed. Implications for health care executives considering or attempting an outcomes reporting strategy will be suggested.

Finally, in this chapter, conclusions, practice recommendations, and research propositions regarding the development of health care organization report cards will be offered. The propositions are supported by reference to literature, and by examples from the case.

Environment, Organization, and Leadership Characteristics Influencing the Decision Process

Characteristics of the external environment and certain organization attributes have been shown previously to affect the type of decision process employed (Shrivastava & Grant, 1985). Leadership characteristics are important determinants of which strategic issues receive attention within the organization (Dutton & Duncan, 1987), and influence the

decision process through resource allocation (Sabherwal & King, 1992) and direction to subordinates (Nutt, 1991).

The relationship between decision process and decision effectiveness has not been clearly established (Dean & Sharfman, 1996). This case study was designed to address only the decision process. No measures of decision effectiveness were included in the data collection activities.

Findings from previous research investigating linkages between environmental, organizational, and leadership characteristics and decision process are summarized in the following sections. The market environment in which St. Vincent's operates, and selected organizational and leadership characteristics are described. Similarities and differences between observed characteristics and the literature are discussed.

External Environment Influence

Leaders in health care organizations must understand the current situation and evolving trends in the external environment to formulate strategy successfully. They require adequate knowledge about market competition, technology, and regulation related to the industry as well as social, political, and economic characteristics. Although

organization leaders may scan the environment on a continuous basis to identify emerging issues and trends, comprehensive environmental assessments most often are conducted to establish an information base to facilitate formal planning activities. The assessment process may be both time and resource intensive. Some organizations prefer to employ a consultant to collect information about the environment, to analyze environmental data and prepare a summary analysis, or to perform both activities. In some situations, an analyst external to the organization may be desirable to assure objectivity in data collection and analysis.

Previous research findings. The extent and frequency of information seeking about the external environment are, to some degree, functions of the rate of change and the diversity of the environment. These environmental attributes often are described by the terms heterogeneity, dynamism, and hostility (Miller & Friesen, 1981). Heterogeneity is used to describe the number of external factors that influence an organization and how different those factors are. Dynamism refers to the rate of change and the unpredictability of the various factors. Hostility implies the presence of factors in the environment that constrain an organization's ability to

perform effectively or that pose threats to organization survival. Organizations operating in heterogeneous, dynamic, or hostile environments require more information, and more frequently, about their competitors and about market characteristics than organizations in simple, non-threatening environments.

Sabherwal and King (1992) conducted a comprehensive search of the strategic management literature to develop a contingency framework for decision processes in strategic information systems planning. They found that dynamic environments constrain information search and analysis, and quick noncomprehensive decision-making processes have been recommended for such environments (Fredrickson, 1984). Heterogeneous environments, however, require comprehensive analysis to accommodate diverse constituencies (Smart & Vertinsky, 1984), and hostile environments increase political processes (Salancik & Pfeffer, 1977).

Birmingham market environment. St. Vincent's Hospital employed a consulting firm to prepare a market assessment preparatory to the current strategic planning cycle. The objectives of this assessment were the following: (a) to assess the Birmingham market and forecast the likely direction

and magnitude of market changes, (b) to evaluate St. Vincent's current strategic position, (c) to determine the likely impact of forecast market changes on St. Vincent's, and (d) to assess the advantages and disadvantages of pursuing any of several proposed strategic alternatives.

Specific statements in the report are held confidential as proprietary information. However, the consultants estimated market change, market position, and organizational readiness using analytical frameworks that converted contextual data to numerical scores and visual displays. The ratings portrayed the Birmingham market as dynamic, moderately heterogeneous, and potentially hostile. Based on the market assessment used for strategic planning, St. Vincent's could be expected to collect as much relevant information as possible in a short time, and develop a report card quickly.

Organization Characteristics

Strategic effectiveness requires both the capability to operate efficiently in the current environment and the ability to anticipate and adapt to environmental changes in the future. Characteristics recognized as influencing these capabilities include size, formality of structure, information

system maturity, work force capabilities, and the organizational culture.

Previous research findings. Although the ultimate question of strategic choice versus environmental determinism has been the subject of much debate, the fit between the environment and organizational capabilities is a central tenet in strategic management paradigms. Research in the field has addressed the degree of influence or constraint posed by the environment and the managerial tactics used by organizations under differing environmental conditions. Certain characteristics such as size, slack resources, and decision-making structure are considered to enable organizations to be more proactive in managing or influencing their environment (Clark, Varadarajan, & Pride, 1994; Sabherwal & King, 1995) to achieve strategic advantages.

Larger organizations typically possess or control greater absolute resources than smaller organizations, an advantage that may be intensified if slack exists in those resources. IS maturity has been positively related to increased planning for IS implementation and for decisions concerning strategic IS use (Sabherwal & King, 1992). Formal organization structures have been positively associated with analytical

decision making, whereas less formal structures follow more intuitive models (Miller, 1987).

St. Vincent's Hospital. As noted in the case study, St. Vincent's is a medium-sized hospital operating just under 300 inpatient beds. Although the volume of admissions has been relatively stable for the past several years, the number of patient days has declined significantly. The reduction in service volume is attributed to incremental decreases in the average length of stay (from 5.6 in FY 1992 to 4.5 in FY 1996). Approximately 25% of St. Vincent's operating revenue is derived from outpatient services, which is slightly above the industry median.

Financial indicators for FY 1996 place St. Vincent's in the upper 25% of industry comparison data. St. Vincent's reported a return on assets almost twice the industry median and a debt to equity ratio less than half the industry median despite a 23% increase from their FY 1995 ratio. St. Vincent's has a strong financial position and significant liquidity. The DCNHS appears financially stable as well. The corporation reported total assets of $5 billion and gross revenues of $6.2 billion in FY 1995.

The IS function was rated by the consultant as above average when compared with similar hospitals in several categories: network structure and connectivity, application support, and financial resources dedicated to the IS function. Best estimates indicate that a full, robust data repository is probably not achievable for three years. Target dates have been established for connecting various systems, and a priority order for primary systems has been specified.

Although St. Vincent's organizational chart portrays a traditional structure, cross functional work groups are frequently chartered for specific objectives, and informal communication networks are frequently employed. St. Vincent's size, organizational structure, resource base, and IS maturity suggest that decision processes would be efficient. Resources are available to shorten the time for information search and analysis.

Leadership Characteristics

The characteristics of the key decision makers in an organization influence the process in several ways. Personal characteristics, communication and delegation styles, and previous experiences all bear on the type of process used or permitted in an organization.

Previous research findings. A centralized decision-making structure may increase the likelihood that environmental management tasks will be handled by higher level executives with resource distribution power (Clark et al., 1994). Alternatively, top-management champions may be required for projects to receive necessary resource support (Sabherwal & King, 1992).

Information processing styles, the amount of information used to evaluate an issue, and the tendency to respond to opportunity or threat issues (Thomas & McDaniel, 1990) influence the issues which receive attention and perhaps the decision process as well. Nutt (1991) found that the tactic (communicating preconceived ideas, analyzing the issue, setting objectives, or citing examples) used by top managers to introduce the issue and guide decision making in health care organizations had more influence on the effectiveness of the decision than the urgency, importance, or leverage of the issue.

The dominance of boundary-spanning functions, such as marketing and information management, within an organization is of particular interest as decision-making power tends to

reside in those functional areas best suited to cope with the dominant environmental requirement (Hambrick, 1981).

St. Vincent's Executive Team. St. Vincent's organization chart portrays executive leadership as a team with decision making centralized at the executive level. However, evidence suggests that although information may be exchanged among the members of the ET, decisions relative to responsibility units are made by the individual vice presidents. Decisions requiring implementation across functional areas typically have a champion who has used consensus-building techniques among the involved parties before the decision is communicated within the ET.

The CEO is influential in environmental management, particularly in negotiating alliance relationships with other organizations. The operational boundary-spanning functions are grouped under the CFO/CIO and the VP for Planning and Marketing, both of whom are strong champions for visionary, distinctive strategic endeavors. The medical staff is represented at the executive level by the Vice President for Medical Affairs. It is likely that any one of these leaders could champion a report card, but support from the others would be critical to successful implementation.

Environment and Organization Influence Ratings

Sabherwal and Grant (1994) used a four-celled matrix to visually depict the degree of influence from the external environment and the constraints imposed by the organizational and leadership characteristics on the decision-making model. Subjective analyses of the Birmingham environment and St. Vincent's characteristics were used to identify the axis points.

External influence scale. During interviews conducted for the case study, members of the Executive Team rated a series of items (Appendix D) to illustrate their perceptions of the heterogeneity, dynamism, and hostility of the Birmingham health care environment. The average value for the three measures was used as the environmental influence score, which is plotted on the y-axis of the Figure 6 matrix as EXT. The value indicates that the external environment has a significant influence on the decision-making process.

Internal influence score. The structure of the Executive Team, the stated desire for a collaborative culture, and the relationships with the regional and corporate entities suggest a decision-making environment with political characteristics. A political model of decision making implies

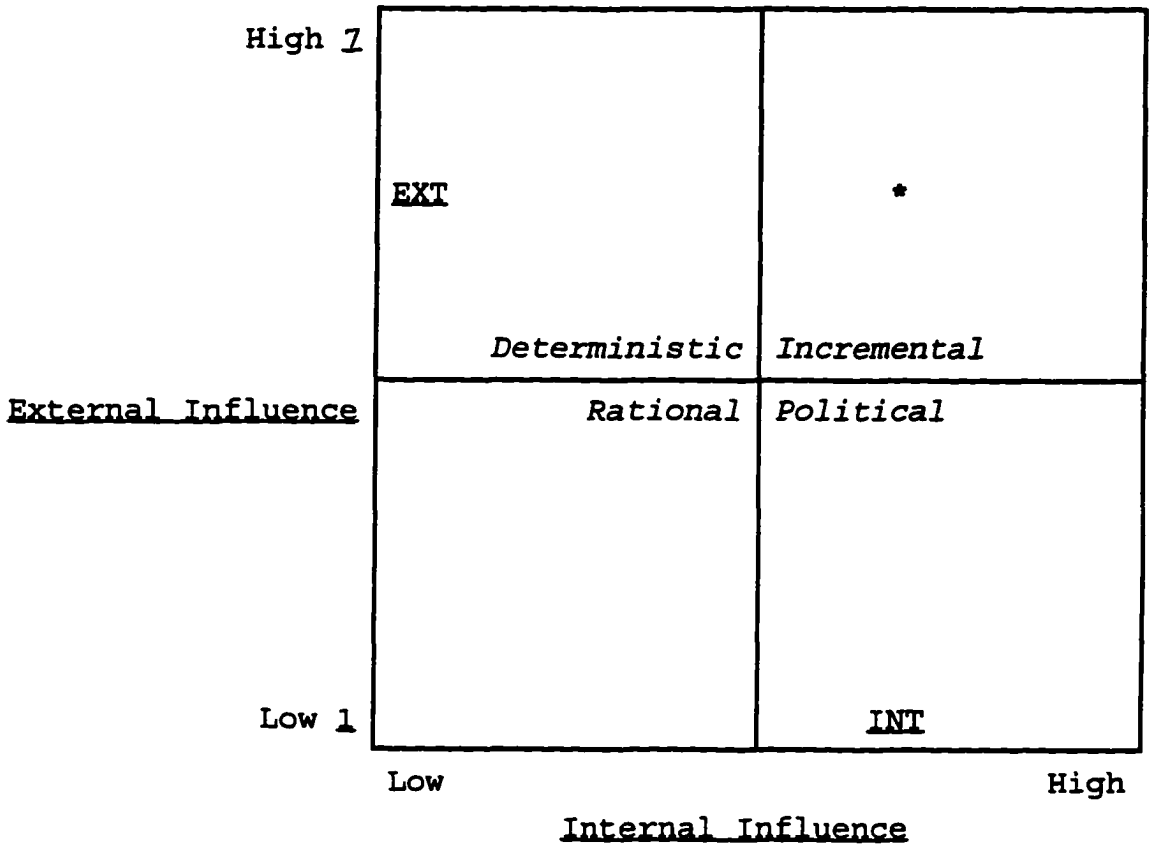

Figure 6. Rating of external environment and internal context influences on the decision process (Sabherwal & Grant, 1994).

that power or negotiation tactics are used in the process. This places St. Vincent's above the median on the x-axis in Figure 6. Objective data were unavailable to establish a definite position on the axis. However, negotiation tactics were observed and reported more frequently than power tactics. Therefore, the organization is subjectively categorized in the third quartile of the internal influence scale, and placement is indicated as INT. Characteristics within the organization impede a purely rational decision model.

Decision Process Analysis

Nutt (1984) defined a decision process as "a set of activities that begins with the identification of an issue and ends with action" (p. 415). Activities included in the decision process at St. Vincent's that culminated in releasing an outcomes report card were placed in temporal order for analysis. The precursor activity or trigger event for each activity identified was investigated until the events leading to issue definition had been pinpointed. Three significant events converged to trigger issue awareness: (a) a gap identified by the CIB (no system to identify stakeholder needs and wants), (b) a potential threat in the external environment (planned release of organizational data by a third party), and

(c) a market leadership opportunity identified by the CEO (awareness of corporate strategy in another market area). These events and the set of activities initiated after issue identification are illustrated in Figure 7. All activities between the awareness stage and the production of the document for publication are considered part of the decision process.

Decision Process Type

The interaction between environmental forces and organizational characteristics placed St. Vincent's in the upper right quadrant of the decision process model (Figure 6), the incremental category. An incremental approach assumes that strategy development, and thus decision making, is a dynamic process and is not necessarily linear. As the organization gains new knowledge during strategy implementation, objectives and activities are adjusted to accommodate current understanding, political scenarios, and environmental factors. Incrementalism may be logical and purposive and may be used to initiate organizational learning. Salient management activity characteristics associated with incrementalism are summarized in Table 11.

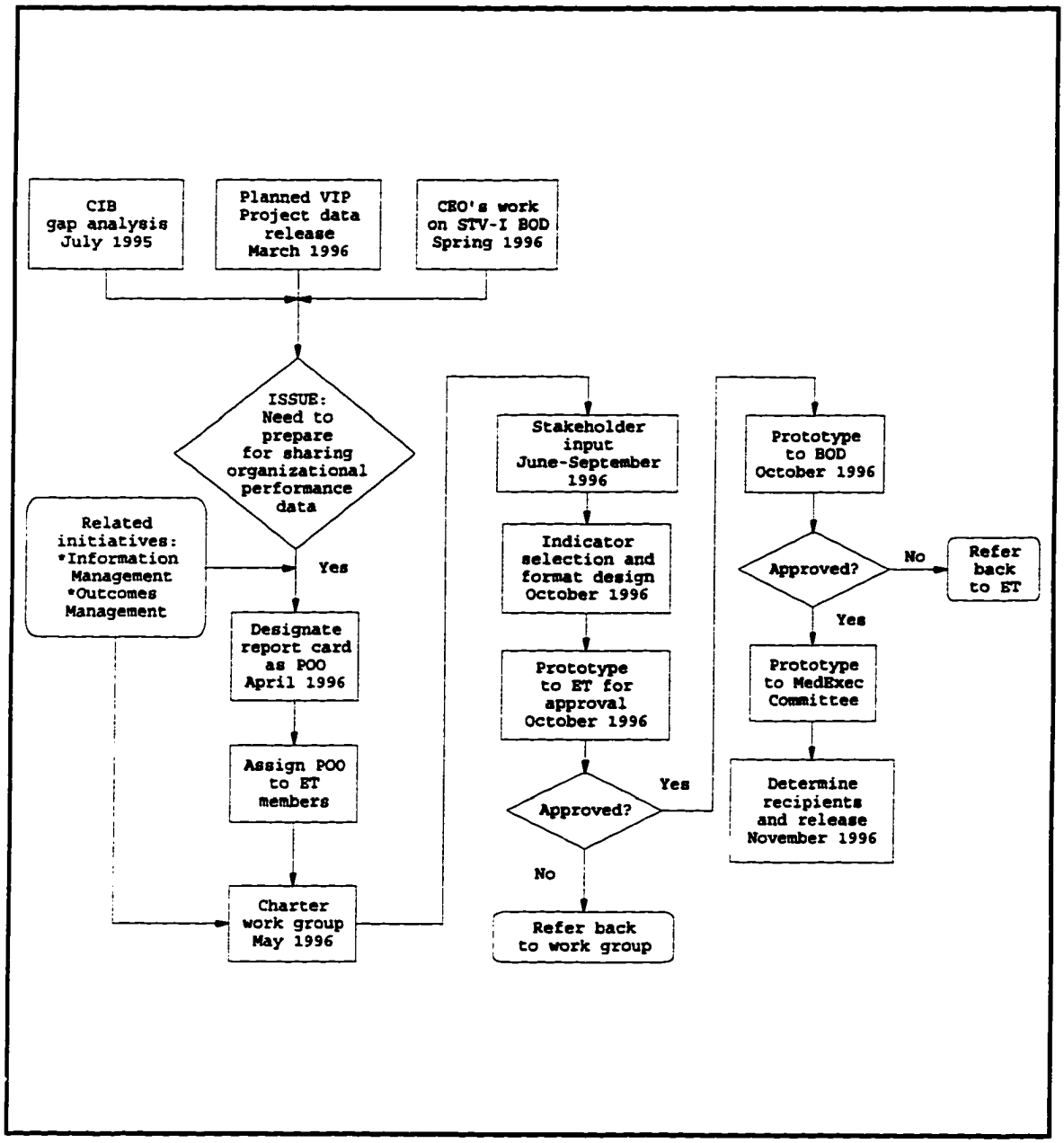

Figure 7. Key incidents in the decision process leading to report card release.

Table 11

Characteristics Associated With Logical Incrementalism

Goal setting	Issues emerge from operational activities; rarely discovered through formal environmental scanning
Organization design	Extensive use of temporary work groups that can be formed and dismantled quickly
Leadership and power	Informal power relationships; decision maker attempts to build support and consensus
Communication	Networking is key to managerial success; communication internally centered, but with outside networks

Note. From Strategic Management of Health Care Organizations, 2nd ed. (pp. 68-69), by W. J. Duncan, P. M. Ginter, and L. E. Swayne, 1995, Cambridge, MA: Blackwell. Copyright 1995 by W. Jack Duncan, Peter M. Ginter, and Linda E. Swayne. Adapted with permission.

The report card issue at St. Vincent's emerged from collaboration and quality initiatives managed through operational activities, and from the CEO's role within the corporate structure. The majority of the activities leading to implementation of the report card were conducted through an ad hoc work group, an approach used frequently by the organization. Adequate support for the report card was achieved to place the issue formally on the strategic agenda. The membership of the Report Card Work Group enlarged several

times as associates co-opted other associates working on related projects. These examples, and others observed during data collection, provide support for classifying St. Vincent's decision processes as incremental.

Incrementalism is appropriate as a general descriptor of the decision-making model employed in an organization, but individual decision processes can be characterized more explicitly when sufficient data are available. Observations, interviews, and archival documents at the case site provided adequate description of separate activities to further analyze the decision process studied.

The tactics used by leaders to provide direction to subordinates, the amount and type of information seeking, and ways in which information is analyzed and used provide additional description of a decision process. Nutt (1984) developed a framework of five stages to analyze key activities in decision processes. Within each stage, decision makers may seek, synthesize, and analyze available information. The formulation stage improves the understanding of the problem and sets solution objectives. Concept development identifies alternative responses which are expanded and tested in the detailing stage. Evaluation considers the costs and benefits

of each identified alternative. The plan is carried out in the implementation stage. Although the stages and information steps are linear, they are not prerequisite. Information functions or stages may be omitted. Nutt classified data from case studies of 73 organizations to create a decision process typology. Classification was based on an organization's tendency to activate selected stages and omit others.

The decision process employed at St. Vincent's to develop an outcomes report card is most consistent with the search type described by Nutt (1984). Decision processes of this type activate only stages 1 and 5, formulation and implementation. In decision processes of this type, the process sponsor (alone or through delegation to subordinates) searches for a workable solution to a need that is either trivial or ill-defined. The search process produces an idea ready for implementation with no comparison of alternatives or evaluation. Peers and published literature are used as information sources to seek out ideas.

The two dimensions, personnel involved and need classification, create four possible variations of the search process, which are illustrated in Figure 8. Nutt (1984) observed only open and sequestered searches among his cases.

	Sponsor search	Subordinate search
Trivial need	Casual search	Open search
Ill-defined need	Sequestered search	* Bold search

Figure 8. Variations of the search process type described by Nutt (1984).

He suggested that casual searches would be considered inconsequential and perhaps not reported in the case studies. He assumed that executives would find decisions stemming from bold searches threatening if an inability to define the issue could be perceived as managerial failure and would not use this search type.

The issue was ill-defined in that stakeholder information needs or desires were unknown, and the impact of making information available could not be predetermined. The issue had both opportunity and threat characteristics. The need was nontrivial as the issues associated with public release of organizational performance data are complex and potentially threatening to an organization.

The issue sponsor, however, did not search for and implement an existing outcomes report instrument in isolation. He delegated the search to a group of associates he trusted to find a solution to a nebulously stated objective--to develop a report card instrument that would highlight value derived from using St. Vincent's services. The work group proposed a solution--an internally designed report card comprised of priority information items that were specified by stakeholders and that addressed the stakeholders' credibility issues.

The work group did not consider any alternative reporting instruments; therefore, none were tested. The stages of concept development, detailing, and evaluation were omitted from the decision process. Information-seeking activities included both print media searches and communication and query through peer networks. These characteristics place this particular decision process in the bold search category of Nutt's (1984)typology.

Decision Process Effectiveness

Evaluating the link between decision process and decision effectiveness assumes that different processes lead to different decisions, that different decisions lead to different outcomes, and that not all outcomes are equally acceptable (Dean & Sharfman, 1996). These assumptions may be intuitive, but cause and effect is not a simple relationship in any of these assumptions. This study was focused on describing a single decision-making process and did not evaluate the content of the decision.

Effectiveness of the decision process was considered using modifications of criteria posed to evaluate decision effectiveness (Nutt, 1991). Three types of measures were considered--process duration, process merit, and solution

adoption. Ratings for St. Vincent's process will be compared to Monmouth Medical Center (MMC), the only single provider example available from the literature.

Process duration was measured as the length of time in months from the point of issue identification until the solution was implemented. Report card development was designated as a POO for St. Vincent's Hospital in April 1996. The prototype instrument was approved by the BOD for release in October 1996. Process activities were evident over a period of seven months. The length of time devoted to report card development reported in the literature ranged from a low of three months for MMC to two years for the purchaser and provider collaboration. The MMC process, an executive leadership effort, consisted of seven meetings and did not include external stakeholder input.

Process merit was measured subjectively through self-ratings by the Report Card Work Group participants (Interview questions 2g and 2h, Appendix B). The average value from an anchored 5-point interval scale (Nutt, 1991) rated the work group's effectiveness in identifying the stakeholders as good and the effectiveness of identifying the stakeholders' information needs as good. MMC credited their process as

"pragmatic" and as featuring "effective dialog" that created a daily management tool that could be used for external communication.

Solution adoption was defined simply as implementation of the report card as proposed, or with minor modifications. No effort was made to evaluate the usefulness of the product, either to the recipient or to St. Vincent's. A satisficing solution or an optimal solution could have been adopted. The BOD approved the concept on October 25, 1996.

Comparison of Case Findings With Literature

Literature review identified three publications describing health care organization report card development processes in adequate detail for comparison with the current case. The development processes used in these organizations are summarized in Table 2. Important characteristics of the development processes are compared across all organizations in Table 12. The organizations are sequenced from left to right in order of decreasing similarity to St. Vincent's Hospital.

St. Vincent's process differs from the others reported in two important characteristics. First, the developmental activities were delegated to middle managers, most of whom were at the department director level. Second, the St.

Table 12

Comparison of Report Card Development Process Characteristics

	St. Vincent's Hospital	Monmouth Medical Center	Sisters of Charity	Massachusetts Healthcare Purchaser Group
Force driving report card development	Provide performance information to employers to select employee health benefits	Hold market leadership - management tool and external communication	Needed outcome information for management; to prepare for future public reports	Needed outcome indicators to improve care and employee health
Personnel involved	Mid-level managers	Executive leaders	Executive leaders	Executives
Time to develop	7 months	3 months	15 months	2 years
Stakeholder input	Yes	No	No	Purchaser/provider collaboration
Comparative indicators	Combination of comparative and unique	No - roll up measures	Yes - within system	Yes - among collaborators
Report card recipient(s)	Target employers	Managers & external customers	Corporate office System hospitals	Employer & public release

Vincent's process included stakeholder input, which was a significant determinant of the product developed.

Work group. Although responsibility for managing the POO to develop and implement a report card was designated at the ET level, the charge was delegated to the directors of Marketing, Outcomes Management, and Quality Review. These associates enlisted other participants as expertise was needed, or when related activities with other groups could be coordinated.

The associates appointed to the Report Card Work Group were well chosen with regard to their understanding of the organization's information management capability at the operational level. This knowledge base was a key success factor in achieving the objective in the designated time frame.

Three information systems issues were identified in chapter 2 as impediments to outcomes reporting: (a) data availability, (b) data quality, and (c) data analysis and presentation capability. Because associates who worked directly with the financial, clinical, and administrative information systems were assigned to the work group, potentially problematic data issues were resolved quickly.

Availability and accuracy of data elements, system linkages, and other attributes of data quality were addressed as indicators were considered. It is unlikely that the depth of knowledge about the procedural and operational aspects of the information systems would be observed in an executive team.

Stakeholder input. Discussion of the stakeholder management literature in chapter 2 indicated that collaboration strategies and proactive approaches are the preferred tactics for maintaining stakeholder relationships in the health care sector. Lack of input from individual consumers in most reporting initiatives has been noted. Only three studies reported using focus groups to identify reporting attributes that consumers found meaningful (Chakraborty et al., 1994; Hibbard & Jewett, 1996; Lohr et al., 1991). None of the studies was conducted by a health care organization, and none targeted benefits managers as participants. St. Vincent's attempt to query consumers and payers (through benefits managers) in the same manner and to identify differences in their information desires is a tactic not reported previously.

The focus groups convened by NSR on St. Vincent's behalf were evaluated against criteria extracted from research texts

and journal articles. The composite criteria set is included in Appendix F. Criteria were defined for five categories: (a) planning, (b) focus group sessions, © questions and moderator guide, (c) moderator skill, and (d) environment. Only one criterion was not present--the written report did not specify the analysis methodology used. In general, findings from the previously reported focus groups were supported by St. Vincent's groups.

Current research (Martins & Milliken, 1996) suggests that involving stakeholders in the process of issue interpretation through cooperative sensemaking (information gathering) and sensegiving (interpretation) activities will improve both the speed of response to strategic issues and conformance to stakeholder expectations. Discussion during the focus group sessions indicated that consumers and benefits managers alike were receptive to learning from the report card.

Proposed Methodology for Report Card Development

Report cards can be used to communicate information about organizational performance or to enable leaders to measure achievement of strategic objectives. This study has investigated development of a report card specifically for dissemination of performance information to external

stakeholders. The model presented in Figure 9 illustrates activities identified in the literature or through the case study as important in meeting the expectations of external stakeholders. The model is not expected to be appropriate for developing report cards to monitor strategic objectives.

The elements of the model will be discussed by presenting the rationale for inclusion. Author citations will be provided to acknowledge recommendations drawn from the literature. The process used at St. Vincent's Hospital will be compared to the model. The effect of omitted steps will be discussed.

Discussion of the Model

Hospital leaders should define the intent of the report card, whether for internal monitoring or for external communication, and identify the key performance domains indicated by the mission and strategic goals (Luttman et al., 1994) and by any distinctive competencies to be emphasized (Chernov, 1993). This framework relates the report card to the organization's critical success factors and prohibits reporting trivial measures. Indicators of quality or efficiency appropriate to each domain should be defined by a multidisciplinary group (Sales et al., 1995). The indicators

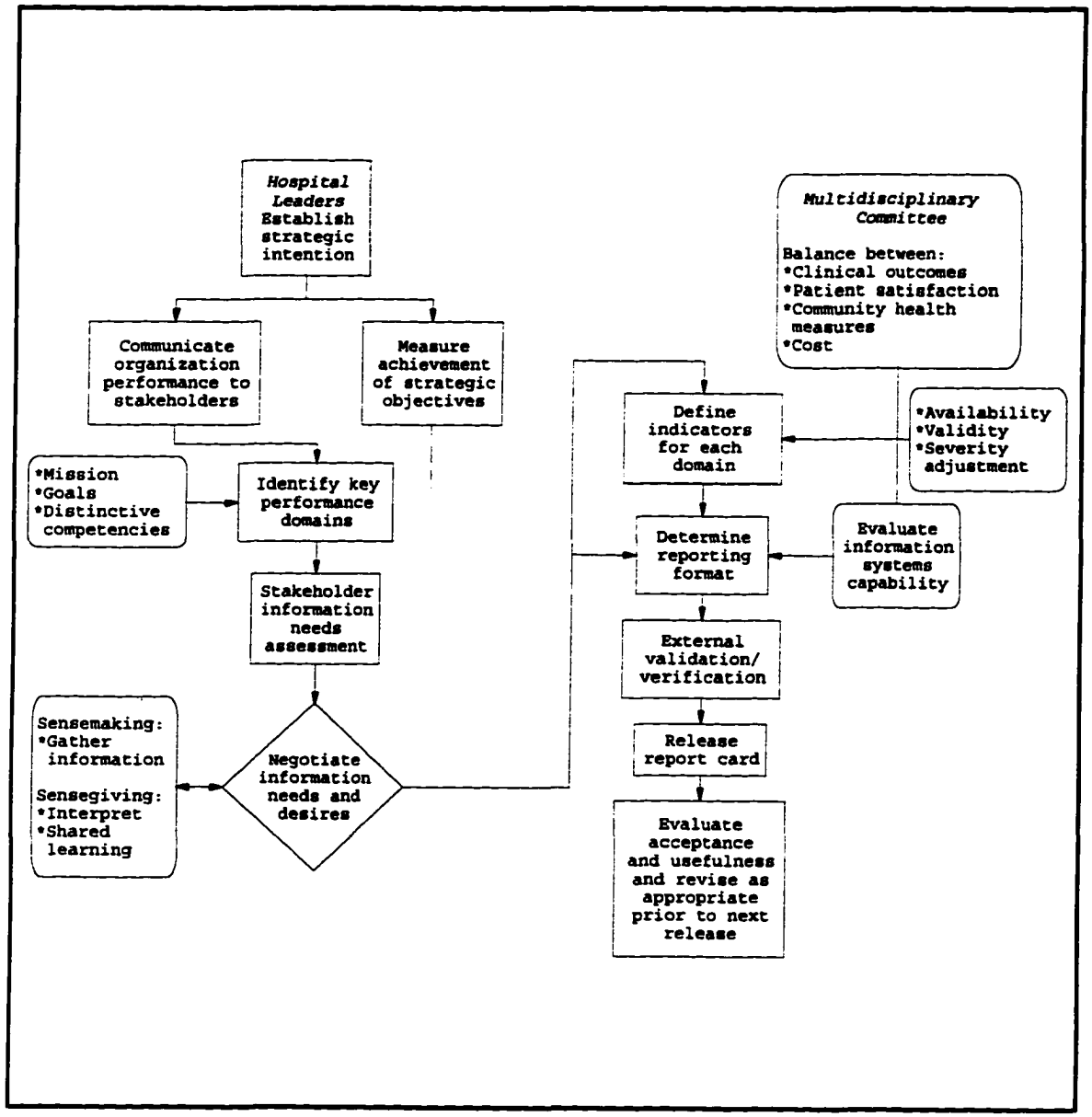

Figure 9. Proposed model for developing a hospital outcomes report card for external stakeholders.

may be uniquely developed, drawn from literature review, or adapted from other sources, but the organization should attempt a balance among clinical outcomes, patient satisfaction, and community health measures. Criteria should be established to select from among available indicators with particular attention to validity, severity adjustment (Romano et al., 1995), and data availability (McNeil et al., 1992). Communicating the selection criteria to report card recipients is an important credibility factor. Information systems capability to collect, process, and report necessary data should be assessed concurrently with indicator selection. This improves the efficiency of the process. The value of desired indicators can be weighed against the cost of information system modifications if necessary.

As stakeholders request information, or as the organization seeks to make information available, the stakeholders' needs, desires, and intended use of the information should be explored. The information to be made available should be negotiated, and the stakeholder needs and desires should be considered in indicator development (Corrigan & Nielson, 1993; Dearmin et al., 1995; Laffel et al., 1995) and designing the report format. The negotiation

stage may be useful for sensemaking and sensegiving activities as some stakeholders may have less sophisticated information processing capabilities than others. It is likely that not all recipients will want the same volume of information or detail of data.

External validation or verification of the information presented in the report card is highly recommended (Epstein, 1995; GAO, 1994; QIMC, 1995). The credibility of self-reported performance data was found to be an important issue to consumers in the current study.

The actual release of the report card may become one of the more interesting issues in outcomes reporting. Print media are by no means obsolete, but the INTERNET is becoming a pervasive business communication medium. For hospitals that maintain home pages and World Wide Web sites, a hypertext link to the report card is a relatively simple and inexpensive option. The emerging EXTRANET, which permits inter-organization access to information systems for strategic partners, could ultimately result in key stakeholders selecting data elements to create indicators at will.

The final step in the model is evaluation. Little is known about how consumers and payers actually use report card

data. Evaluating the usefulness of information provided may improve the quality of future reports, and feedback into the negotiation stage can strengthen the collaborative relationship.

St. Vincent's Process Compared to Proposed Model

Three differences between the process employed at St. Vincent's and the proposed model are evident. First, stakeholder information needs were investigated independently of St. Vincent's performance domains. Work groups to establish a framework to define and redefine the key organizational processes and to establish outcome measures for those processes are in progress as CIB initiatives. It is expected that the framework will be implemented before a second report card is released.

Second, there was no forum to negotiate the stakeholders' information needs. The stated information desires and credibility issues emerging from the focus groups were examined, and organization information capabilities were "matched" to those specifications as closely as possible. In some instances, assumptions were made and alternative indicators were selected. Differences between what was requested and what was provided were resolved as unilateral

decisions by the St. Vincent's work group. It is anticipated that direct contact with benefits managers following receipt of the initial report card will permit clarification and negotiation of specific information needs.

Third, a methodology for evaluating the acceptance and usefulness of the report card was not presented as part of the implementation plan. Interviews indicated that some form of evaluation is assumed. The initial report card is expected to present a learning opportunity for the community at large. St. Vincent's anticipates that other organizations will release report cards soon, and each will learn from its competitors' efforts.

Implications for Practice

The study has shown some interesting implications for health care executives. First, the report card concept does not connote a single instrument used for a single purpose, or for all instances of outcomes data reporting. Organizations must establish the strategic intent of information use as a first step in report card development.

Second, uniquely defined report cards can be useful to organizations and their stakeholders. Although the NCQA HEDIS instrument is acknowledged as one of the better validated and

most comprehensive outcomes reporting tools currently available, it continues to be refined. According to the NCQA President, "There is not one perfect measure in HEDIS" (McGuire, 1996). HEDIS was designed to standardize provider information for health plan purchasers and may not cover all areas of strategic importance to health care organizations (Luttman et al., 1994), particularly with regard to distinctive competencies. HEDIS may provide only minimal contribution for information sharing with strategic partners. A HEDIS reporting mandate to develop standardized databases for policy analysis or reimbursement will not answer requirements for all information-sharing needs.

Third, the ways in which outcomes information is used by external stakeholders is still unknown. Evaluation of the report card content is outside the scope of this study. However, in light of the significant financial and resource costs associated with developing an outcomes report card at the organization level, a cost benefit analysis is important. Value derived should be measured from the perspectives of both the hospital and the recipient. Expected benefits to the organization would include improvement in stakeholder relationships, which might be measured through increased

market share. If the information on the report card were used in decision making to select a provider, one might expect changes in benefit plans selected.

Propositions for Future Research

Research propositions were developed using an iterative process, comparing case data and archival documents with existing literature, drafting propositions, and returning to the data to verify evidence. Similarities and dissimilarities among the case, published reports of other development processes, and the prescriptive literature were identified. In instances where case observations supported the literature, general propositions were specified. Contingency propositions were posed where case observations differed from the literature, or were not suggested in the literature, and the difference could be attributed to contextual factors. A total of eight propositions were developed for three contextual factors found to influence the type or duration of the decision process: external environment, organization characteristics, and leadership characteristics.

External Environment Propositions

Propositions were developed for two environmental characteristics: dynamism and heterogeneity. Data available

from the case study and literature did not present adequate evidence to propose the most likely type of decision process used to report performance outcomes in a hostile environment. It is possible that outcomes reporting would not be an organizational priority under such circumstances.

Proposition 1: In a dynamic environment, an organization is more likely to use a pragmatic decision-process model to develop an outcomes report card to be used for communication with external stakeholders.

Specifying the strategic intent of a report card prior to defining the development process is extremely important. Evidence suggests that differences in content and use influence development time significantly. This proposition is supported by the case, by published reports (Laffel et al., 1995), and by the conceptual literature (Fredrickson, 1984; Sabherwal & King, 1992).

When an issue is associated with market changes, time is a critical variable. St. Vincent's goal was to produce the first report card in the market area. If a longer, more rational development process had been employed, they might have lost the first mover advantage. However, this approach

resulted in a satisficing solution which has not yet been evaluated.

Proposition 2 (Contingency): In a heterogeneous environment, the organization will compensate for the number of stakeholders and the diversity of their information needs by identifying and responding to "key" stakeholders.

A heterogeneous environment is assumed to require more information analysis due to the number and diversity of environmental influences (Smart & Vertinsky, 1984). However, an organization cannot satisfy all stakeholders, and thus designates those with greater influence over organizational performance as more important. The interconnectedness of various stakeholders influences their perceived value as well. These assessments are relevant to making outcomes information available to stakeholders.

St. Vincent's declared their top two stakeholders for outcomes information at that point in time as large employers and individual consumers. The interaction between the benefits managers who represented the employers and their employee consumers was important. Changes in stakeholder relationships in the future might produce different target groups to query for information needs.

Organization Characteristic Propositions

Propositions were developed for three organizational characteristics: size, maturity of the information systems function, and formality of the organization structure.

Proposition 3: A larger organization will likely have a shorter process duration to develop an outcomes report card for communication with external stakeholders than a smaller organization.

Large organizations are more likely to have slack resources than small organizations. Therefore, personnel and other resources can be allocated to compress the time required to complete the process.

Proposition 4: An organization with a mature information system function is more likely to have a shorter process duration to develop an outcomes report card for communication with external stakeholders than an organization with a less mature information system function.

IS maturity is positively associated with the degree of IS influence on the decision-making process (Sabherwal & King, 1992). Leaders and managers in an organization with a mature IS are likely to be more information reliant and more skilled at information analysis than in those organizations with

immature systems. Existing efficiencies in information resource utilization are expected to increase the efficiency of the development process.

Proposition 5: An organization with a less formal structure is more likely to use a pragmatic decision-process model to develop an outcomes report card to be used for communication with external stakeholders.

Previous work has shown that less formal organizations follow intuitive models more frequently than analytical models (Miller, 1987). In the examples available, both the corporate organization (Alserver et al., 1995) and the health plan (Bloomberg et al., 1993) used more robust processes and had longer process durations than either the case site or the single provider example (Laffel et al., 1995). St. Vincent's frequent use of cross-functional work groups and the collaborative culture characterize less formal structure.

Leadership Characteristic Propositions

Propositions were developed for three leadership characteristics: centralization of the decision-making function, information-processing style, and strategic issue response.

Proposition 6: Organizations with a dominance of boundary spanning leaders at the decision-making level are likely to experience a shorter process duration to develop an outcomes report card for communication with external stakeholders.

Centralized decision making has been associated with attention to environmental management issues at the executive level (Clark et al., 1994) perhaps because decisions are made by those best suited to cope with dominant environmental requirements (Hambrick, 1981). The executive team that developed the report card at MMC in three months included representatives from the boundary-spanning marketing and performance improvement functions.

Two of the three events that established outcomes reporting as a strategic issue at St. Vincent's were associated with boundary-spanning activities, the CEO's membership on another hospital board and a collaboration activity in the local market. The CIB initiatives were internally focused but originated from the organization's participation in the Malcolm Baldrige National Quality Award process. The executive team designated the issue as a POO. The champion set a short time window for completion and

continually reinforced the time objective through information about similar activities in the market.

Proposition 7 (contingency): Organizations that use cross-functional subordinate teams for strategic information processing are more likely to experience a shorter process duration in developing an outcomes report card.

High levels of participation and interaction and informal organization structure increase information processing and use in decision making (Thomas & McDaniel, 1990). The reliance on work groups at the case site to analyze information and propose solutions to leaders was evident in archival documents, interviews, and through observation.

Proposition 8 (contingency): When a strategic issue is ill-defined, the solution is more likely to result from the influence of a champion rather than through a consensus process.

Ill-defined issues pose exceptional challenges to decision making (Camillus & Datta, 1991; Nutt, 1984; Thomas & McDaniel, 1990) and intuitively require incremental processes, more information, and longer time periods to develop solutions. In the reported cases, executive teams responded to internally driven strategic initiatives. In the case site,

the issue of public release of outcomes performance data emerged from the external environment with both opportunity and threat characteristics. Potential solutions had significant operational issues associated, and no standard existed by which to evaluate a decision outcome. A champion was needed to push for a solution in a short time period.

Summary

This study has identified and described the decision-making processes used in one hospital to develop an outcomes report card. This research adds to the accumulated knowledge about how organizations carry out the process of decision making by describing and analyzing detailed data collected from a single case and a single decision process.

In addition to answering specific research questions, the study examined the decision-making process in the context established by the environment, the characteristics of the organization, and the leadership characteristics of the executive team.

The findings report an evident use of a pragmatic, solution-centered approach in lieu of normative models. Based on actual observations, the case provides insight into the relationship between the decision process and contextual

factors. The decision process was successful in that a solution was implemented, the duration of the process was short, and participants were satisfied with the efficiency and effectiveness of the process. The organization accepted a satisficing solution, which is consistent with an incremental approach to decision making.

The notion that the decision process may be more important than the outcome (March, 1981) as a device for organizational learning is supported in this example. St. Vincent's executives and associates participating in the development process consistently described the principal objective of the process as a medium for learning "to get us ready for [mandated] data releases."

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APPENDIX A

ANNOTATED LIST OF PERSONNEL INTERVIEWED

Name/Title	[1]CIB	Workgroup Assignment
Executive Leadership Team		
Vincent C. Caponi, CEO		
Michelle Hood, COO	Yes	
Curtis James, CFO/CIO	Yes	
Dr. Wayne Killion, VP Medical Affairs	Yes	ReportCard
Susan Sheffield, VP Patient Care Services	Yes	
*Deeni Taylor, VP, Planning & Marketing	Yes	Stakeholder
Work Groups		
Liesl Eastlake, Planning Analyst		Report Card
Becky Harrison, Risk Mgr.		Report Card
*Kenny Hartley, Asst VP, Finance		[2]MISS Report Card
John Holbrook, Director, Planning Department		Stakeholder Report Card
Susan Jennings, Director, Outcomes Management		Report Card MISS
Elizabeth Johnson, Lab Supv.		Stakeholder
Bill Lang, Media Supv.		Report Card
Anthony Longobardi, OP Rehabilitation Manager		Stakeholder
Bill Paullin, Clinical Services Adm. Director		Stakeholder
*Traci Van Dorselaer, Director, Marketing		Report Card
Lisa Watts, Nursing QR	Yes	Report Card

Name/Title	[1]CIB	Workgroup Assignment
Debbie Whisenhunt, Mgr, Quality Review	Yes	Report Card MISS
Other associates and non-associate participants		
Maureen Cook, PCT Coord., NSA	Yes	None
Jim Jager, New South Research, Consultant		None
Jackie Kennedy, Director HIS		MISS
Jack Mathias, AMS, I/S Consultant		None
Diane Massey, Director HIM		MISS
Louis Wilhite, New South Research, Consultant		None
Kim Wright, Manager HIM		MISS

[1] Continuous Improvement Board
[2] Medical Information Systems Strategy group
* Workgroup Chairperson

APPENDIX B

INTERVIEW QUESTIONS

INTERVIEW QUESTIONS	Interviewees
Research Question 1: How did the organization identify its key stakeholders for outcomes information? Who are they?	
The following categories of stakeholders are generally assumed to want information about a hospital's clinical and performance outcomes: • Accrediting and regulatory agencies • Alliance partners • Business coalitions • Donors and potential donors • Employers • Individuals (patients) • System/corporate boards	
1a. Do you agree with these categories? Would you add or delete any? Which ones?	ELT Report Card Stakeholders
1b. How important do you consider each of these groups as recipients of St. Vincent's outcomes information? *Scale = Very Important, Somewhat Important, Not Important*	ELT Report Card Stakeholders
1c. What specific individuals, groups, or organizations in any of these categories do you consider to be important stakeholders for St. Vincent's outcomes information?	ELT Report Card Stakeholders
1d. Why do you consider each of these entities you named to be important?	ELT Report Card Stakeholders
1e. Describe the process or criteria you/the group used to identify St. Vincent's stakeholders.	Report Card Stakeholders
1f. Describe the process or criteria you/the group used to determine which stakeholders were "key."	Report Card Stakeholders

Research Question 2: How were key stakeholders' outcomes information needs determined? What performance dimensions do these needs represent?	
We generally assume that: (a) individuals want information about patient satisfaction and comparative performance to select among providers; (b) purchasers want information about financial performance, efficiency, and effectiveness to guide purchasing decisions; (c) accrediting/regulatory agencies want information about compliance with existing standards.	
2a. Do you agree with these assumptions? *Scale = Yes, Somewhat, No*	ELT Report Card Stakeholders
2b. Would you add or delete any of these assumptions? *Specify:*	ELT Report Card Stakeholders
2c. Have any of the previously defined stakeholder groups requested specific outcomes information from St. Vincent's? If yes, which ones? What information did they request?	Director HIM Director QR ELT
2d. Have St. Vincent's associates contacted any of these groups to discuss/negotiate outcomes information needs or wants? If so, which ones? Who made the contact? Why were these particular groups contacted? What was the result of the contact?	CIB ELT Stakeholders
2e. Are St. Vincent's leaders making assumptions about what outcomes information will be needed by whom? What are these assumptions, and what are they based on?	CIB ELT Stakeholders

2f. Is St. Vincent's collecting (and reporting) outcomes information in response to recommendations or requirements of any of the following accrediting or regulatory agencies? • AQAF • JCAHO • NCQA • Alabama Hospital Association • Alabama Department of Public Health • Daughters of Charity Corporate • Other_____ What information is collected/reported?	Director HIM Director HIS ELT Report Card Stakeholders
2g. How would you rate the/your workgroup's [Report Card/ Stakeholders] overall effectiveness in identifying St. Vincent's stakeholders and their outcomes information needs? *Scale:* *5 = Excellent, made a decisive contribution* *4 = Good, useful in several ways* *3 = Adequate, met some needs* *2 = Disappointing, left several issues unresolved* *1 = Poor, no redeeming features*	CIB ELT Report Card Stakeholders
2h. How would you rate the/your workgroup's [ReportCard/ Stakeholders] overall efficiency in meeting its objective(s)? *5 = Excellent, time and resources well used* *4 = Good, reports on time, but group time excessive* *3 = Adequate* *2 = Disappointing, reports late* *1 = Poor, very inefficient*	CIB ELT Report Card Stakeholders

Research Question 3: How were information requirements to generate specific outcomes indicators determined? What criteria were used to select from available indicators?	
3a. Who initiates/approves collection of data to measure an outcome indicator?	Director QR VP Medical Affairs
3b. Who defines the data elements necessary to calculate an approved indicator? Who selects the information source(s)? On what basis?	Director QR VP Medical Affairs
3c. How important do you consider each of the following criteria (or others) to select an indicator for measurement and reporting? • Easy to collect required data • Availability of reliable data • Potential impact on quality improvement • Clinical validity • Consensus as to importance • Can be risk/severity adjusted • Can be compared to other organizations • Measures an outcome or process linked to an outcome • Patient-centered measure • Required by external agent • Others (specify)_____ *Scale = Very Important, Somewhat Important, Not Important*	Director QR VP Medical Affairs Report Card
3d. Who can authorize an ad hoc report from computerized information systems?	CFO Director, HIS Director, HIM Manager, HIM

Research Question 4: How were owners of the required data and information determined? What information systems contain the necessary data?	
4a. What departments currently collect and computerize outcomes data?	Director HIS ELT
4b. Which of these databases are linked and which are stand-alone? Have databases been ranked in order of priority for integration? *Specify priority order:*	Director HIS
4c. Describe the current status of the clinical data repository. What is the projected date for full integration?	CFO Director HIS IS Consultant
4d. Outline the major interim goals and dates for integrating non-linked information systems into the clinical data repository.	CFO Director HIS IS Consultant

EXTERNAL ENVIRONMENT INFLUENCE

Environmental Dynamism

A. The rate and unpredictability of change in the external environment may influence the decisions made by an organization and its overall strategy. Please rate the environmental factors below as you believe they apply to the health care industry. The rating scale for each factor is shown in parentheses. Circle your rating.

1 2 3 4 5 6 7 At what rate do products or services involved in the delivery of health services become obsolete?
(1 = slowly; 7 = quickly)

1 2 3 4 5 6 7 How predictable are the actions of St. Vincent's competitors?
(1= quite predictable; 7 = unpredictable)

1 2 3 4 5 6 7 How predictable are the demands and preferences of St. Vincent's customers?
(1= quite predictable; 7 = unpredictable)

1 2 3 4 5 6 7 At what rate does product and process technology used in health care delivery change?
(1 = little change; 7 = much change & often)

1 2 3 4 5 6 7 How frequently do marketing practices need to be changed to keep pace with the market and competitors?
(1 = rarely; 7 = frequently)

Environmental Heterogeneity

B. The number of external factors that influence an organization, and how different those factors are can be important considerations in strategic planning. When you consider St. Vincent's and other hospitals in the Birmingham market, how would you rate the following statements using the scale shown? Circle your rating.

Scale: 1 = not much; 7 = considerable

1 2 3 4 5 6 7	Health care customers' buying habits differ among individuals and groups. These differences are reflected in their choice of a hospital.
1 2 3 4 5 6 7	The nature of competition differs among hospitals in the Birmingham market.
1 2 3 4 5 6 7	The Birmingham health care market for inpatient care is dynamic and uncertain.

Environmental Hostility

C. Factors in the external environment may constrain an organization's ability to perform effectively and maintain financial viability. Do you perceive any of the following issues as a threat to St. Vincent's ability to perform effectively or to survive as an organization? Please rate each issue using the scale shown. Circle your rating.

Scale: 1 = minor threat; 7 = major threat

1 2 3 4 5 6 7 Competitors offer better prices

1 2 3 4 5 6 7 Competitors offer better service quality or services we don't provide

1 2 3 4 5 6 7 Employer coalitions purchasing health care as a group decrease marketing options

1 2 3 4 5 6 7 Trained health care manpower is a scarce resource

1 2 3 4 5 6 7 Government regulations constrain our options as an organization

APPENDIX C

ANNOTATED BIBLIOGRAPHY OF DOCUMENTS REVIEWED

ANNOTATED BIBLIOGRAPHY OF DOCUMENTS REVIEWED

Alabama Healthcare Council Request for Information (September 22, 1995)

The AHC, a coalition comprised of 56 employer companies, represents 100,000 employees and 250,000 total lives in Alabama. The RFI was released to recruit and evaluate potential partners in designing, developing, and implementing a cost-effective, high quality, health care delivery plan and/or product.

Communication Directory

This is a listing of associates' telephone numbers, and beeper numbers organized by department and alphabetically. The booklet also includes fax numbers, pneumatic tube stations, and voice mail instructions. A brief history, philosophy statement, and listing of the core values are presented.

Continuous Improvement Board - Minutes, Agendas, Reports

The CIB was chartered by the Executive Leadership Team in 1991 to coordinate the organization's continuous improvement initiative. Minutes and agendas were reviewed from January 1993 forward. The CIB activities supported reporting outcomes data to stakeholders.

Continuous Quality Improvement for St. Vincent's Hospital and Seton Health Corporation

This document, approved by the CEO in November 1993 specified the vision as "forging relationships to provide compassionate health services of the highest quality and value." The document outlined six principles (Decision making at the lowest level, Teamwork/Collaboration, Customer satisfaction, Competent staff, Leadership, Simplicity of process) and summarized fourteen strategies to achieve the vision.

DCNHS 1995 Annual Report - Renewing the Vision

This is a high quality marketing document which used vignettes from local ministries to illustrate achievement of seven corporate goals. A brief statement of financial and statistical data is included, as well as locations of sponsored organizations and chief executive officers.

DC-RIS Monthly Management Reports (1994 - 1996)

Information systems departments in the 11 East Central Region hospitals are coordinated and supported by the DOC corporate Regional Information System (DC-RIS). The Monthly Report summarizes all hospitals' performances on ten key management report indicators in a report card format, and reports the status of DC-RIS POOs for information resources.

Executive Leadership Team - Agendas and Minutes 1995-1996

The ELT minutes are documented as a listing of information items reported. The diversity of items reported ranges from communication of progress toward strategic initiatives to prayer requests for members of the St. Vincent's "family" who are ill.

Focus Group Study on Report Cards - Preliminary Report and Final Report

An eight-page preliminary report was submitted within one week following the first two focus groups. The preliminary report was requested by the Director of Marketing for presentation and discussion during a scheduled meeting of the Report Card Work Group. The final report was received September 23, 1996.

HBOC Enterprise Integration Project (February 1995)

This document was prepared by the primary IS vendor to define the implementation plan for integrating the various information systems to achieve a clinical data repository and longitudinal patient record. Project time lines and implementation phases were specified.

Hospital Report Cards - A Literature Search by the Advisory Board Company

This collection of documents was prepared in response to a request during preliminary information-seeking by the planning analyst working with the report card work group. The search consisted of five sample report cards and two articles from trade journals. These documents were provided to the marketing consultant to aid in framing questions for the moderator's guide.

Improving Organizational Performance Plan, FY 96-98

A two-year, single purpose plan to align management systems with Baldrige Award criteria and JCAHO standards, which established seven objectives for the first phase. The plan was finalized in July 1995, introduced during the September Current Issues meeting, and distributed to directors and managers 11/30/95 with cover memo suggesting that it be used to set department and associate goals. A diagram illustrating the seven objectives was used as a "short form."

Information Systems Steering Committee - Agenda, Minutes, Reports

This committee reviews and recommends approval of the annual strategic information systems plan, monitors implementation of the plan, and receives and acts upon project

reports. The committee consists of approximately 20 members, most at the department director or VP level. The group meets quarterly, and is chaired by the CFO/CIO.

Internal Assessment Summary

Summary of an internal assessment prepared by Jennings Ryan & Kolb consulting firm as part of the 1996 strategic planning process. The document provided highlights in inpatient utilization trends, utilization in selected service lines, medical staff profile, payer mix, and financial position.

Malcolm Baldrige National Quality Award Health Care Pilot Application

The hospital submitted one of 46 applications for the 1995 Baldrige pilot and was one of only 13 organizations selected for second stage review. The document responded to criteria in seven categories: leadership, information and analysis, strategic planning, human resource management, process management, organizational performance results, and patient and stakeholder satisfaction.

Malcolm Baldrige National Quality Award Health Care Pilot Feedback Report

This document is a 39-page report of findings from the evaluation of the written application submitted by the

hospital. It consists of a scoring summary and a detailed assessment of strengths and areas for improvement in the seven categories.

The report was summarized internally into a listing of 37 directive statements in April 1996. The summary list was disseminated to directors and managers to aid in setting goals and objectives.

Management Handbook, 6th Edition (September 1994)

The Handbook is an indexed and tabulated three-ring binder of information about day-to-day management activities, instructions for completing commonly used forms, and routine management requirements. It includes the organization's philosophy, current goals and objectives (the POOs), a listing of advisory groups/ committees and their purposes, and the visual and narrative descriptions of the organizational structure.

Management Team Pictorial Directory

A three-ring binder of photocopied biographical sketches for associates at the executive, director, and manager levels. Each entry provides a picture, name, title, department, education resume, tenure with the organization, personal

background, and a short quote identifying the associate's favorite core value.

Medical Staff Directory (September 1996)

This internally published document is a listing of affiliating physicians, their office address, clinical specialty, and staff appointment category.

Mission Possible: St. Vincent's 1996 Sponsorship Report

Annual report summarizing achievements during the fiscal year. Report sections are the local health ministry, major events and changes, sponsorship criteria assessment, primary organizational objectives, spirituality, and care of the poor and community benefit.

Moderator's Guide - Focus Groups on Report Carding

This script was jointly developed between New South Research and St. Vincent's Director of Marketing to guide discussion during the focus group sessions with benefits coordinators and consumers. As part of this script, mock report cards were developed based on comments elicited during the focus groups and presented to the participants for reaction.

New South Research Correspondence

St. Vincent's contracted with New South Research, a local marketing research company, to plan and conduct focus groups to identify stakeholders' report card information preferences. Correspondence included NSR's proposal, participant-screening guidelines, and a draft of the proposed moderator's guide.

Organization Charts

Relevant charts at several organization levels were collected and reviewed. These included:

- St. Vincent's Hospital
- Seton Health Corporation of North Alabama
- Seton Home Health Services
- Daughters of Charity Regional Information Systems
- Health Information Systems Department

"Our Core Values: Our Challenge for Today"

This small pamphlet explicates the five core values [Respect, Quality Service, Simplicity, Advocacy for the Poor, Inventiveness to Infinity] which guide St. Vincent's associates in fulfilling the mission. The document was adapted from a DCNHS publication and released in June 1996.

Outcomes Work Group & Key Processes Work Group - Working Documents

These two groups were chartered in 1995 as part of the CIB's plan for improving organizational performance. Through shared membership, collaboration, and exchange of documents, these two groups achieved agreement on a draft listing of 12 key organizational processes, a descriptive outcome statement for each, desirable outcome measures, and examples of measurement techniques or tools.

Patient Satisfaction Work Group - Agendas, Minutes, Reports (January 1995 - May 1996)

The Patient Satisfaction Work Group, chaired by the COO, is directed at coordinating all information derived from patient satisfaction measures. Their goal is to ensure that actionable information, including data from surveys conducted using the Picker tool, is returned to departments and services to use for performance improvement. Current initiatives include establishing a system to communicate results, prioritize required action, and monitor progress.

Personnel Handbook, January 1995

The Handbook provides concise, generalized information about the organization's benefits, policies, and procedures in a half-size three-ring binder. Available information includes

a brief history of the organization, statement of philosophy, mission, and values.

Picker Patient Satisfaction Survey Project

A meeting agenda, a proposed work plan, and a flow chart of the survey process used by The Picker Institute to communicate their product for patient satisfaction surveys to St. Vincent's leaders.

Pink and Blueprints, July 1996

This issue of the St. Vincent's Women's and Children's Center newsletter described the planned facility and services which will be provided. An artist's drawing of the facility was included.

Policy Manual

A compilation of organizationwide policies approved through executive signature or board endorsement.

Primary Organizational Objectives

This document, referred to among associates as "The POOs," defines the mission-support objectives addressed during the current fiscal year. Ten POOs were specified for FY 1997, including the following: "Design and distribute a report card instrument which is regularly provided to payers, employers, public and internal audiences (associates and physicians) that

highlights value derived from St. Vincent's Centers of Emphasis as well as surgical services, outpatient services, emergency department, and primary care."

Report Card Work Group, Agendas, Minutes, Reports

Members of this work group were the primary agents for determining the content, format, and presentation of the outcomes report card. The group began work in May 1996. Membership included associates from Marketing, Planning, Outcomes Management, Quality Review, Risk Management, Finance, and the Executive Team. The principal product of the work group was the prototype report card submitted to the Board of Directors for approval.

Response to Alabama Healthcare Council's Request for Information (November 6, 1995)

Preparation of this 45-page document was coordinated by the Vice President, Planning and Marketing, on behalf of St. Vincent's Hospital and Seton Health Corporation of North Alabama. Among other questions, the RFI asked for a report of mechanisms for measuring outcomes, and a description of the data and information capabilities of the organization.

Stakeholder Work Group - Agenda, minutes, correspondence, reports

An internal memorandum convened the work group, established the objectives, and specified the date to complete the assignment. The group met four times between October 1995 and February 1996. A final report was submitted to the CIB at the January 1996 meeting. The work group defined four priority stakeholder groups in their report: patients/family members, employers/payers, physicians, and community.

Strategic Information Systems Plan (August 1994; June 1996)

The SISP was developed by American Management Systems, Inc. (AMS) to align the information systems with the organization's business strategy. The original plan identified nine essential IS capabilities. The three year plan proposed 16 projects in five areas: implement patient-centered systems; integrate systems with community based network; implement decision support systems; strengthen information resources management; and operate and enhance application systems, hardware, and computer network. Several projects were directed at planning for and implementing a clinical data repository.

The 1996 update plan validated the nine required system capabilities as appropriate. However, four projects were no

longer applicable due to changes in business strategy. The revised plan reinforced planning for the clinical data repository, enhancing capability to monitor cost and quality outcomes, and preparing to share data with the community based network and others.

Strategic Issues Group - Agendas and Minutes 1995-1996

The SI group meets bi-weekly with additional called meetings as needed. Minutes are recorded as a listing of agenda items presented by the executives as reports, for discussion, or recommending action. The SI Group's attention to the local market, regional and national corporate issues, and internal operations is evident.

Strategic Planning Documents, 1996

A compilation of four documents developed by health care management consultants Jennings Ryan & Kolb to facilitate strategic planning for fiscal years 1998 and 1999. The documents included a market assessment, an internal assessment, a summary of executive interviews, a summary of the DCNHS strategic priorities, planning assumptions, and specification of critical success factors. The documents were used at working meetings of the Strategic Issues group and at the strategic planning retreat.

Vincentian Decision Making

This eight-step decision model was given to the first Daughters of Charity by St. Vincent de Paul. The DCNHS encourages use of the model for complex issues and/or situations where significant diversity of opinion exists. The steps are printed on a laminated 3" x 4.5" card. The core values of DCNHS are printed on the reverse side.

APPENDIX D

DATA COLLECTION FORMS

GROUP/EVENT OBSERVED: **DATE/TIME:** **LOCATION:**	
PARTICIPANTS:	DOCUMENTS OR OTHER MEDIA USED DURING EVENT:
OBSERVED EVENTS	**PERSONAL COMMENTS**

GROUP/EVENT OBSERVED:

DATE:

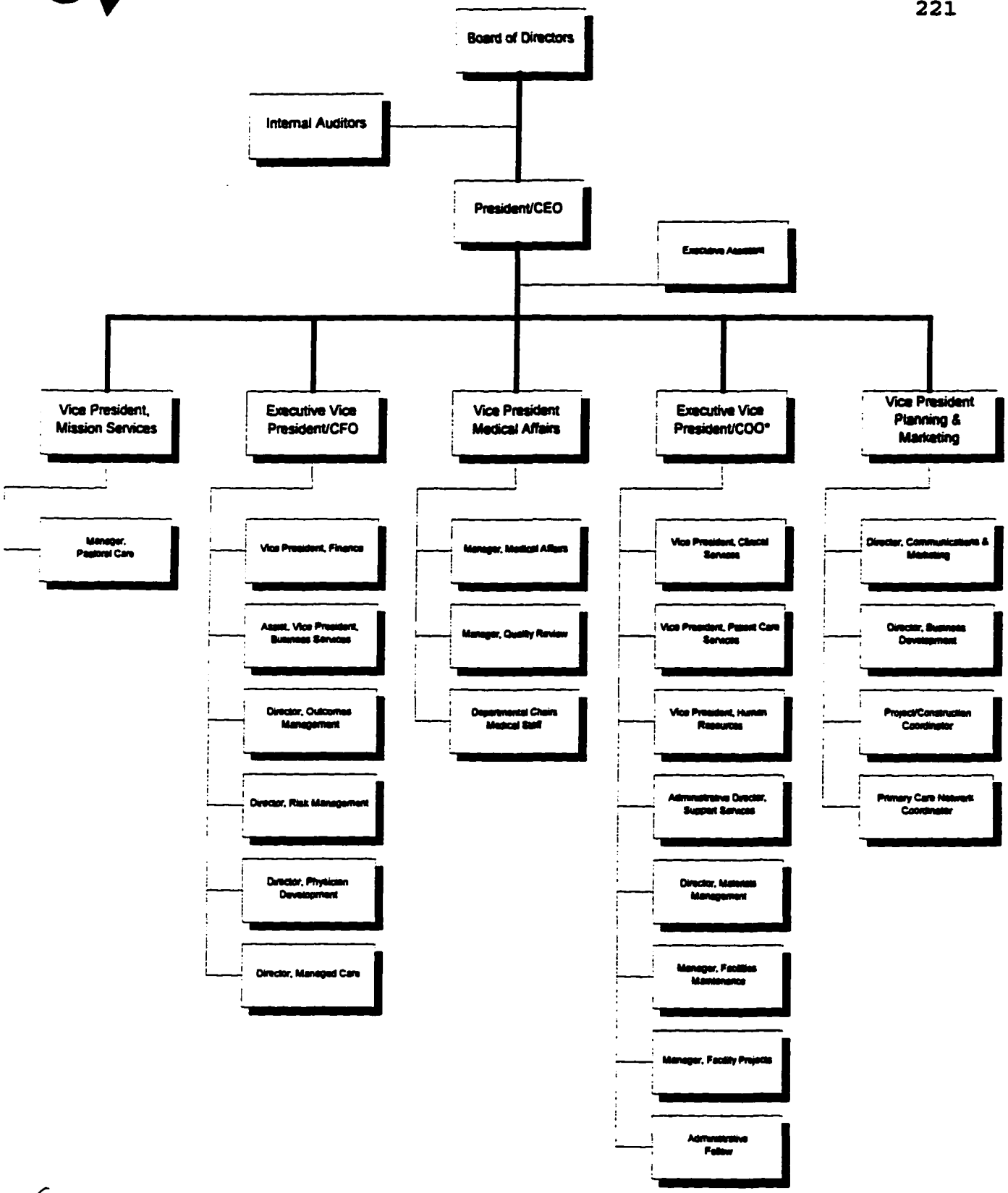
PAGE ___

OBSERVED EVENTS	PERSONAL COMMENTS

APPENDIX E

ST. VINCENT'S ORGANIZATIONAL CHART

St. Vincent's Hospital
Organizational Chart



Vincent C. Capone

President
July, 1996
Board Approved:
* Serves as Senior Executive in absence of President

APPENDIX F

FOCUS GROUP EVALUATION CRITERIA

CRITERION	**YES/NO**
Planning	
Appropriateness of focus group methodology Participants explore issues of importance in their own vocabulary; pursue own priorities [1, 4] Determine consumers perceptions, feelings, and manner of thinking regarding products, services, or opportunities [2]	
Specification of nature of the problem and types of information needed to address the problem Uncover factors relating to complex behavior or motivation [2] Explore range of ideas and issues concerned with the research topic [3]	
Specification of target population Identify characteristics of people wanted precisely [2]	
Bias control in participant screening/selection Successfully defend the selection process to clients [2]	
Focus Group Sessions	
Adequate group size Ideal size 4-8 [1]; ideal size 6-9 [2]; 6-10 [3] 4-12,if exploratory purpose more groups of smaller size [5]	
Appropriate group composition Homogeneous people [2] Participants unknown to each other [4] If subgroup opinion needed, seek homogeneity; if broad range of opinion needed, seek heterogeneity, but homogeneous in at least one research factor [5]	
Adequate number of focus groups Theoretical saturation; fewer groups when seeking helpful insight into easily reversible decision [2] Until responses predictable and no new information [3] Four groups for each research factor [5]	
Appropriate duration of session 1.5 to 2.5 hours [3] No longer than 1.5 hours [5]	
Appropriate incentive provided to participants $20 to $50 efficient for public and nonprofit studies; upper management $50 to $100+[2]	
Session audio/video taped [1]	

CRITERION	YES/NO
Questions/Moderator Guide	
Clarity of questions **Consider length, unidimensionality, and wording [2]**	
Meaningful order of questions **General to specific [2]**	
Reasonable number of questions to permit adequate discussion **About 12 questions for focused interview [2]**	
Client input **Written objectives and range of potential questions developed with facilitator [3]**	
Moderator Skill	
Adequate background knowledge **Appropriate training and experience [3]** **Not directly connected with the research issue [4]**	
Mild, unobtrusive control over participants [2]	
Friendly manner; sense of humor [2]	
Good verbal skills; multiple questioning strategies [2]	
Probes appropriately [2]	
Encourages differing points of view [2]	
Draws in all participants [3]	
Adheres to moderator's guide [4]	
Environment	
Adequate space; comfortable arrangement [1]	
Permissive environment [2]	
Refreshments available [1, 2]	
Staff assistance to manage environment [2]	
Safe location; accessible parking [*]	

CRITERION	YES/NO
Analysis and Written Report	
Format good; information organized and accessible [*]	
Ideas and phrases arranged into categories and themes [3]	
Appropriate, verifiable analysis methodology specified [2, 4]	
Range of ideas highlighted [3]	
Distinguished between group consensus and individual opinion [1]	
Used typical quotes [3]	
Data not reported as percentages or other misleading quantitative format [1]	
Evaluation and Follow-up	
Debriefing immediately following session [2]	
Preliminary analysis in short time frame [2]	
Client review of preliminary report; reaction feedback [2]	
Validity of results considered **Valid if used carefully for a problem suitable for focus group inquiry [2]**	
Evaluation of focus group efficiency [*]	
Evaluation of focus group effectiveness [*]	

Criteria sources:

[1] Kitzinger, 1995
[2] Kruger, 1994
[3] Schattner, Shmerling, & Murphy, 1993
[4] Smith, Scammon, & Beck, 1995
[5] Tang, Davis, Sullivan, & Fisher, 1995
[*] Slovensky

GRADUATE SCHOOL
UNIVERSITY OF ALABAMA AT BIRMINGHAM
DISSERTATION APPROVAL FORM

Name of Candidate Donna Jean Slovensky

Major Subject Administration-Health Services

Title of Dissertation Developing an Outcomes Report Card: A Case Study of One Hospital's Process

Dissertation Committee:

Myron D. Fottler, Ph.D., **Chairman**

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Date Myron D. Fottler