

R E P O R T

Regional Health Quality Improvement Coalitions

Lessons Across the Life Cycle

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Preface

In recent years, regional initiatives have been organized to promote and coordinate improvement across various levels and types of health care organizations in a geographic area. We have little information about the factors that facilitate or hinder the development of effective regional coalitions, nor do we understand which strategies at a regional level are most likely to induce significant and lasting improvements in the health and safety of patients.

With interest in learning more about the dynamics involved in the performance of regional health quality improvement coalitions, the Robert Wood Johnson Foundation funded a planning grant for RAND to undertake a pilot study of four such coalitions. These were the Cleveland Health Quality Choice Program, Minnesota's Institute for Clinical Systems Improvement, the Rochester Health Commission, and the Pittsburgh Regional Healthcare Initiative. Using case study methods and a systems approach, the RAND project team collected information on the four coalitions, seeking to identify common issues and factors involved in a coalition's ability to become self-sustaining and to achieve measurable health care improvements in its region. The effective date for the information gathered is spring 2002, which is when the case studies were performed.

This report presents the results of this study, including descriptions of each coalition, summaries of their histories and experiences during formation, and identification of issues arising during subsequent operation. For the coalitions that still remain in operation, we provide brief updates on activities since spring 2002. The report also includes a summary of the key factors for success that were observed across the coalitions, the presentation of a conceptual model built from a combination of our case study findings and a review of systems models, and a related set of observations and testable hypotheses regarding factors that may contribute to the successful performance of regional health quality improvement coalitions.

This report will be of interest to policymakers and researchers working with system approaches for achieving improvements in our health care system. The study findings also should be useful for individuals and organizations embarking upon similar regional health quality improvement coalitions in other regions.

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Summary

In recent years, regional coalitions have been developed to promote and coordinate improvement across various levels and types of health care organizations in a geographic area—from individual providers, clinics, and hospitals to managed care plans, networks of providers, and integrated systems. Over the past decade, these initiatives have evolved into a vehicle for achieving both improvements in health care quality and reductions in health care costs. At the core of these coalitions has been a regional organizing body capable of initiating and sustaining collaboration among a wide range of natural competitors.

This study, which was conducted under the auspices of a planning grant awarded by the Robert Wood Johnson Foundation, examines various dimensions of regional health care coalition performance using case study methods and a systems approach. Specifically, it seeks to answer the following research questions:

- Which factors influence the development of sustainable regional health quality coalitions and the decisionmaking processes they use to formulate their goals and activities?
- What are the characteristics of effective collaborative strategies, as judged by their capacity to achieve and maintain positive change as well as to improve quality of health care practices and outcomes?
- What are important barriers to coalition effectiveness, and how might they best be managed?
- What expectations are realistic, with respect to requirements for time, resources, conditions, and actions at policy and systems levels, to be able to institutionalize, and perhaps replicate, practice improvements in a region?

The four coalitions participating in this study represent important “natural” regional health quality improvement experiments that are among the leaders in the country at this time. These coalitions are:

- *Cleveland Health Quality Choice* (CHQC) in Cleveland, Ohio, which discontinued operation in 1999 after almost a decade of publishing health care quality reports on the performance of Cleveland area hospitals;
- *Institute for Clinical Systems Improvement* (ICSI) in Minneapolis–St. Paul, Minnesota, with 10 years of operating experience and continued activity expansion;
- *Rochester Health Commission* (RHC) in Rochester, New York, which has existed for eight years and has significantly modified and expanded its initiatives over time; and
- *Pittsburgh Regional Healthcare Initiative* (PRHI) in Pittsburgh, Pennsylvania, a relatively new coalition still in the early stages of development and evolving rapidly.

To establish an information base on the history and current operations of these four regional coalitions, we collected archival documents from each and conducted on-site and telephone interviews with their key stakeholders. Only telephone interviews were conducted for the CHQC, because it no longer was in operation and many participants had dispersed.

Coalition Structures and Activities

Although the four regions where the coalitions operate have many similar characteristics (see Table 1), each represents a different state of the organizational life cycle, offering a unique opportunity to understand both common and divergent themes across these initiatives that may be more (or less) likely to lead to the desired outcomes.

For each of the four cases, we provide descriptions of the coalition environment, formation, development of goals and strategy, implementation of initiatives, organizational structure and support, major milestones and important changes over time. Although information gathering about the case studies was performed in spring 2002, the three coalitions that are still operating have continued to progress since that time. Therefore, brief updates on their activities since June 2002 are also included.

Cleveland Health Quality Choice—A Life Cycle Completed

The Cleveland Health Quality Choice (CHQC) program, organized in 1990, was one of the first regional health quality initiatives in the country, becoming a model for similar efforts elsewhere. It was studied by all three of the other regional coalitions in our study during their formative stages.

The goal of the CHQC was to improve the cost effectiveness of hospital care by reporting data on the quality of care provided by local hospitals and encouraging employers and patients to choose high performing providers for health care. The participating hospitals agreed to provide the necessary data and to adopt a standardized method to objectively measure risk-adjusted outcomes.

Little change was made in the CHQC organizational structure, financing arrangements, or program activities in the nine years of its existence. The CHQC focused on establishing the indicators and measurement methodology and then generating regular reports on hospital performance on those indicators.

The CHQC ended its operations in 1999 amidst controversy among participants. Interest in the report cards lagged during the last few years of the CHQC's operation, and the coalition had not evolved as regional and national priorities changed over time. The discontinuation of CHQC may have been a natural endpoint, despite the political upheavals surrounding it.

Institute for Clinical Systems Improvement—Growth and Expansion

In 1992, the Business Health Care Action Group (BHCAG), a coalition of Minnesota businesses, issued a request for proposals (RFP) to develop an integrated, quality-oriented health care delivery system. Catalyzed by this RFP and to meet BHCAG's request, a proposal was developed by Group Health and Med Centers health plans to merge into a new entity (HealthPartners) and to establish an organization for integrating its associated medical practices, along with the Mayo Clinic. The proposal was awarded by BHCAG, leading to the formation of the Institute for Clinical Systems Integration (ICSI) to develop practice guidelines, measure outcomes, and meet other BHCAG requirements.

The mission of ICSI today is “to champion the cause of health care quality and to accelerate improvement in the value of the health care [they] deliver.” The ICSI program has four principal components:

- *Scientific groundwork for health care* consists of the development of clinical guidelines and technology assessment reports by ICSI member working groups.
- The *core commitment* cycle consists of member provider group participation in four clinical or service-related topics for intensive improvement efforts each year.
- *Support for improvement* is provided to ICSI provider members.
- The *Minnesota health quality agenda* is an outreach initiative to champion health care quality throughout the state.

BHCAG began withdrawing its involvement in 1997. Once BHCAG sponsorship was discontinued, the organization shifted its emphasis from supporting clinical guideline development and managing BHCAG data reporting requirements to supporting guideline implementation and assessment of related outcomes.

In March 2001, four leading Minnesota health plans joined HealthPartners as sponsors of ICSI, better reflecting its regional improvement focus and its statewide improvement goals. This expanded sponsorship has created new challenges for ICSI, both in terms of being responsive to a substantially larger membership and fulfilling specific expectations of the sponsor consortium.

Rochester Health Commission—Evolution and Change

In response to growing discontent of the Rochester business community about escalating health care costs and premiums, the Industrial Management Council (IMC) (an association of businesses in the Rochester area) began planning for the future of the Rochester health care system, leading to the formation of the Rochester Health Commission (RHC) in 1995. RHC's mission is to help stakeholders reach consensus on actions that are needed to continuously improve the Rochester health care system. The RHC program of work falls under two major areas—Community Performance Assessment and Health Care Forum Initiatives.

Community Performance Assessment encompasses a variety of data collection, analysis, and standard development activities designed to assess and improve health care performance across the community. Activities include the following:

- Health System Performance Reports
- Clinical Guidelines
- Employer Health Benefits Survey
- Premium Reports.

The first initiative undertaken by the RHC involved reporting on health plan and provider performance. However, hospitals' unhappiness about providing data on their own performance while helping to support RHC financially led to extended debates among RHC stakeholders regarding its role and authority. Emerging from the debate was a change in the mechanism for funding RHC operations, as well as a decision to create the Health Care Forum, a public forum process through which consensus is achieved on the implementation of community-wide initiatives that are intended to increase the value of local health care services.

Health Care Forum Initiatives now constitute the majority of the RHC's work. Through this process, the Forum Leadership Group defined an overarching continuous improvement strategy

for the Rochester health care system. Twelve collaborative initiatives are now under way, led by designated organizations under the Forum that are required to report regularly back to the community on progress in achieving their goals and objectives.

Pittsburgh Regional Healthcare Initiative—Emerging and Framing

Formed in 1999, the Pittsburgh Regional Healthcare Initiative (PRHI) was derived from a regional economic development plan. PRHI formulated goals for clinical quality, capacity reconfiguration, and patient safety initiatives. It began its work focusing on capacity issues, which threatened providers due to potential loss of competitive positions, leading to their resistance to participation.

PRHI redirected its strategy to develop an environment where providers could feel safe working together on quality improvements. PRHI leaders and staff identified three entry points for change: (1) achieving the goal of perfect patient outcomes in five clinical areas: maternal and infant health, orthopedic surgery, advanced cardiac care, depression, and diabetes; (2) improving the patient safety goal of eliminating medication errors and nosocomial (i.e., hospital acquired) infections; and (3) providing support for quality improvement in the delivery system through working groups and registries and by adapting to health care one of the most successful business improvement models in the world: the Toyota Production System (TPS) and its Pittsburgh derivative, the Alcoa Business System.

Business leadership was prominent initially, but it waned as PRHI initiatives came to be led by physicians and hospitals in the local medical community. At the time of this study in 2002, business leaders were tracking the work and continued to have expectations that PRHI efforts will yield improvements in the health care system.

Initially supported in large part by core funding from the Jewish Healthcare Foundation (JHF) and the Robert Wood Johnson Foundation (RWJF), the bulk of PRHI's current support now comes from several large federal grants. The recent substantial influx of federal grant support has enabled PRHI to significantly increase the number of its full-time staff. An issue to be addressed in the future is how PRHI will be sustained after grant support ends.

Key Factors in Coalition Success

One of the goals of this study was to begin to identify which conditions or factors are important to the formation and longer-term progress of regional health quality improvement coalitions. Factors that appear to be important for enabling the regional coalitions to organize and progress toward their goals include strong leadership; broad-based community commitment; availability of financial resources and incentives; adaptability and flexibility; dissemination of credible, objective, and actionable data-driven information; physician leadership in initiative development; establishing the motivation and active involvement of major providers; achieving measurable outcomes of improvement; and managing the various facets of growth and expansion.

Conceptual Model of Regional Health Quality Improvement Coalitions

Synthesizing our case study findings and the literature on the organization of systems, we develop a conceptual model for the formation and operation of regional health quality improvement coalitions (see Figure 1, Chapter 7). In the context of this model, we present a set

of general observations and related hypotheses, which are formulated around the key components of the model.

Although only four coalitions are examined here, they represent four different stages in the life cycle of an organizational effort, and they yield rich information from which a number of general observations can be made.

General Observations

- The role, structure, and membership of coalition governance will reflect the coalition's underlying philosophy and approach; the choice of board and committee members from among stakeholder groups signifies the relative importance of various groups in the coalition.
- The size and source of financial support for coalition operations is a signal regarding the extent of commitment being made to the coalition as well as its independence.
- The basic approach and strategy of a coalition is driven by the perspectives of its leaders and the stakeholder groups they represent, while also reflecting external factors such as market competition, local health care issues, or the state regulatory environment.
- A variety of methods may be effective for decisionmaking by a coalition, depending on the sensitivity of the issues being considered and who is participating in the negotiations.
- The presence of an adequately resourced and stable coalition management staff will help ensure that initiatives are carried out and the coalition remains on its defined course.
- A coalition may be representative of a broad range of participants, but providers and insurers will be affected most directly by its decisions and initiatives and therefore must be an integral part of the quality improvement work.
- Achievement of measurable quality improvements will be determined in part by how well clinical initiatives are disseminated from a coalition's active participants to the broader medical community.

Hypotheses

Another important goal of this study was to identify a set of hypotheses that could serve as a foundation for future research and an information base for potential new coalitions being initiated in the field. Based on the findings from our four case studies, and framed within the context of our conceptual model, we offer the following hypotheses of the formation and operation of regional health quality improvement coalitions.

Coalition Environment

- Some external catalyst, typically the business community, is needed to give a sense of urgency to coalition formation, but this stimulus does not necessarily have to continue once formation occurs. (Model box 1)
- Coalitions supported by a preexisting collaborative infrastructure (from the business community, government agencies, etc.) will be formulated and accepted more quickly. (Model box 2)

Coalition Activities

- One or two strong leaders with vision and charisma are needed to bring stakeholders to the table and then to keep them engaged and willing to risk participation during a coalition's uncertain formative years. (Model box 3)
- Successful quality improvement collaborations require funding mechanisms that are sustainable for the long term but do not have an undue effect on coalition objectivity or independence. (Model box 3)
- A coalition is likely to have substantial effects on health care in its region only when top-level representatives of the major health systems and insurers are genuinely supportive of the coalition and are participants in its decisionmaking. (Model boxes 3/4)
- By carefully selecting initiatives that stakeholders agree are both important and feasible to implement, a coalition can achieve early successes that build its credibility, while gaining experience in successful collaborative efforts among the stakeholders. (Model boxes 3/5)
- Coalitions cannot be capable of effective decisionmaking without the guidance of objective sources of (quantitative or qualitative) data. (Model box 4)
- Motivation for providers to proactively participate and internalize initiatives depends on their being a part of the coalition formation and development process, being treated as respected equal partners, and recognizing the benefits of participation. (Model boxes 4/5)
- The leadership of clinicians and their commitment to the coalition's interventions are key to achieving adoption of the interventions in the medical community. (Model box 5)

Coalition Interactions and Dynamics

- A coalition in which there are a large number and diversity of external and internal interactions among individual stakeholders will have a greater risk of the coalition not being able to achieve its goals. (Model boxes 7/8).
- The ability of coalition participants to reconcile the coalition's collaborative activities with their individual competing roles in the market will enable them to work together effectively (e.g., collaborate on achieving improved clinical processes while competing on outcomes in service delivery). (Model boxes 7/8)
- The early tone and working environment in which a coalition operates, including the style of its negotiations, persuasion, and relationship building, will affect its ability to progress; a sense of fairness, respect, objectivity, and safety in sharing confidential information is necessary for creating an environment of mutual trust. (Model box 8)
- When a coalition is driven by groups external to health care, the motivation of coalition participants will evolve from initially defensive postures to being genuinely participative and internalized, if the coalition achieves collaborative successes and stakeholders see value in the coalition's work. (Model box 8)

Coalition Status

- An "evolutionary" coalition that effectively modifies its goals and strategies over time in response to changes in members' priorities and the external environment, while adhering to

its basic structure and program principles, will be more sustainable than a coalition with more static functions. (Model box 9)

- Alignment of coalition vision, mission and activities with its stakeholders' clinical practices, financial incentives, or organizational values is necessary for coalition sustainability. (Model box 9)
- A coalition will be sustainable if it continues to yield benefits for the most actively involved stakeholder groups. (Model box 9)

Generalizability

While many of the lessons learned from this study may generalize to coalition efforts in other regions with similar characteristics, it is more difficult to speculate on generalizability to different types of regions (i.e., in different areas of the country, encompassing different-sized Metropolitan Statistical Areas [MSAs]). For example, the community culture of some of the regions in this study may limit the ability to generalize the experiences of their coalitions to other regions. A number of stakeholders reported that their smaller community size contributes to a high level of trust and collaboration among participating stakeholders, because people in the town know each other, trust each other, take pride in their local work, and hold each other accountable for getting things done. The competitiveness and other characteristics of the local health care market will also have important effects on the strategies used by coalitions to engage providers and their successes in achieving changes in practices.

Next Steps

The rich information generated through this study of four regional health quality improvement coalitions highlights the diversity of the goals and programmatic approaches undertaken by these coalitions. At the same time, it underscores a number of features, methods, and issues that are common to most or all of them.

The hypotheses merit further examination, both for the three coalitions described herein that are continuing to evolve and for coalitions operating in other locations. Hypotheses regarding the longer-term sustainability of the coalitions can be tested, drawing on the lessons of this study as well as from relevant theory. It also will be important to examine the extent to which new clinical practices or other interventions generated by a coalition actually diffuse into general practice in the region's health care systems. Further examination of hypotheses regarding the formation of regional health quality improvement coalitions will also be necessary to replicate the information collection we performed in this study for other regional coalitions.

Meanwhile, the information presented in this report should be of use for organizations that are considering launching a regional health quality coalition. The coalitions in this study are among the leaders in the country at this time, and others can "go to school" on their stories and experiences, just as each of them did by studying their own predecessors and each other.

Acknowledgments

We express our heartfelt appreciation to the leaders and key participants of the four coalitions that graciously agreed to participate in this study. Their willingness to work with us reflects the commitment they have made to seek creative approaches for improving health care quality and value. The clearest expression of this commitment is the very existence of their coalitions, which are the products of substantial investments of time and resources. Many saw participation in this study as another opportunity to obtain feedback that could help strengthen their work and improve their outcomes. Coalition participants talked with us candidly, sharing facts and opinions that yielded a rich information base for analysis.

In our report iterations, we have tried to capture the essence of the quality improvement concepts these coalitions so diligently apply to health care in their regions. We have conveyed the descriptive information and findings in this report to the participating coalitions for their examination, and we have solicited and incorporated their feedback on our observations and interpretations, as well as on the many issues, themes, and hypotheses presented here. We also have received thoughtful, constructive comments and suggestions from our RAND colleagues Robin Meili and James Zazzali and significant research assistance from Julie Straus. Any errors of fact or interpretation are, of course, the responsibility of the authors and not any of those who provided feedback on our efforts.

1. Introduction

In recent years, regional coalitions have been developed to promote and coordinate improvement across various levels and types of health care organizations in a geographic area—from individual providers, clinics, and hospitals to managed care plans, networks of providers, and integrated systems. Many of these initiatives have sprung from concerns of health care purchasers seeking better health care quality. However, over the past decade, they have evolved into a vehicle for achieving *both* improvements in health care quality and reductions in health care costs. At the core of these coalitions has been a regional organizing body capable of initiating and sustaining collaboration among a wide range of natural competitors. Some coalitions have existed for a number of years; others have formed very recently; and several have dissolved.

Few attempts have been made to study the processes or outcomes of these efforts, either individually or collectively. As a result, many questions remain unanswered. For example, are some organizational structures more effective than others for achieving lasting improvements in a regional health care system? What are the viable options for achieving adequate and stable funding for a coalition? Which stakeholders are the most important, and can any be left out without eventual negative consequences for a coalition's work? Can an incremental approach to improvement pave the way for effective interventions at the system level of health system capacity and cost? What is a reasonable period of time to allow before expecting a coalition to show tangible results from its collaborative endeavors? How can public and private data best be used to provide an objective information base for deliberations? And how can a coalition remain relevant as the local health system evolves and issues and priorities change over time?

The purpose of this exploratory effort is to gather sufficient data about the life cycle of regional coalitions to inform the development of a conceptual model of regional coalitions and associated hypotheses regarding factors that contribute to their evolution, successes, challenges, and outcomes. This study is not intended to normatively judge the performance of the regional coalitions as successes or failures.

This report will be of interest to a wide range of policymakers, funders, and researchers working with systems approaches for achieving improvements in our health care system. The study findings also should be useful for individuals and organizations embarking upon similar regional health quality improvement coalitions in other regions.

Systems Approach

This study, which was conducted under the auspices of a planning grant awarded by the Robert Wood Johnson Foundation, takes a first step toward answering these questions and others related to regional health quality coalitions. The study examines the following research questions regarding various dimensions of regional health care coalition performance:

- Which factors influence the development of sustainable regional health quality coalitions and the decisionmaking processes they use to formulate their goals and activities?

- What are the characteristics of effective collaborative strategies, as judged by their capacity to achieve and maintain positive change as well as to improve quality of health care practices and outcomes?
- What are important barriers to coalition effectiveness, and how might they best be managed?
- What expectations are realistic, with respect to requirements for time, resources, conditions, and actions at policy and systems levels, to be able to institutionalize, and perhaps replicate, practice improvements in a region?

The RAND project team applied case study methods to this study (Yin, 1994), along with a systems approach, to draw lessons from various levels within and across each coalition, including the sponsoring organizations, local business leaders, health plans, institutional providers, individual physicians, and consumer and community organizations.

Overview of Sites Selected

The motivation behind this inquiry was to generate lessons learned from the experiences of established regional health quality improvement coalitions so that newer or emerging similar coalitions could reap the benefits of that knowledge. The four regional health quality improvement coalitions chosen for this study represent the leaders in the country at this time. They are well known, visible, and have histories worthy of study. These four “natural” experiments in regional health care improvement also vary in their level of maturation, thus providing information that spans the entire organizational life cycle—emerging and framing, evolution and change, growth and expansion, and discontinuation or renewal. The coalitions are:

- *Cleveland Health Quality Choice (CHQC)* in Cleveland, Ohio, which discontinued operation in 1999 after almost a decade of publishing health care quality reports on the performance of Cleveland area hospitals;
- *Institute for Clinical Systems Improvement (ICSI)* in Minneapolis–St. Paul, Minnesota, with 10 years of operating experience and continued activity expansion;
- *Rochester Health Commission (RHC)* in Rochester, New York, which has existed for eight years and has significantly modified its initiatives over time; and
- *Pittsburgh Regional Healthcare Initiative (PRHI)* in Pittsburgh, Pennsylvania, a relatively new coalition still in the early stages of development.

The diversity of organizational structures, strategies, and experiences offers a unique opportunity to understand both common and divergent themes across these initiatives that may be more (or less) likely to lead to the desired outcomes.

As shown in Table 1, the four regions in which the coalitions operate have many similar characteristics. All the regions have total populations between 1 million and 3 million residents, and they are predominantly (76 to 90 percent) urban. The geographic area of the Rochester Metropolitan Statistical Area (MSA) is twice as large as the MSAs of the other coalitions. It is also the most rural of the four areas, with the lowest percentage of urban population and population density. Pittsburgh has the highest median age (40 years); the median ages for the other three sites range from 34 to 37 years. All four regions have higher concentrations of whites than the U.S. population in general, while the Hispanic populations in all the regions are well below the national average. The Minneapolis–St. Paul region is slightly more affluent than the

others, as suggested by the higher average education level and median income of its residents as well as the lower percentages of unemployed individuals and people living below the poverty level.

**Table 1:
Characteristics of the Metropolitan Areas Served by the Coalitions**

Characteristic	Cleveland	Minneapolis –St. Paul	Rochester	Pittsburgh	United States
Total population	2,250,871	2,968,806	1,098,201	2,358,695	
Number of counties	6	11	6	6	
Land area (square miles)	2,708	5,051	12,931	4,624	
Population density/square mile	831	588	85	510	
% urban population	89.8	89.5	76.5	82.9	
Population demographics:					
Median age, in years	37.3	34.2	36.3	40.0	35.3
% White	76.9%	86.1%	84.0%	89.5%	75.1%
% Black or African American	18.5	5.3	10.3	8.1	12.3
% American Indian or Alaska Native	0.2	0.7	0.3	0.1	0.9
% Asian	1.4	4.1	1.8	1.1	3.6
% Native Hawaiian or other Pacific Islander	<0.1	<0.1	<0.1	<0.1	0.1
% Hispanic	3.3	3.3	4.3	0.7	12.5
Socioeconomic characteristics:					
% high school graduate or more	82.9	90.6	86.7	86.8	80.4
% college graduate	23.3	33.3	29.2	25.1	24.4
% unemployment	4.6	2.6	3.5	5.1	3.7
Median household income	\$39,345	\$54,304	\$44,443	\$37,475	\$41,994
% households with Public Assistance income	15.7	3.3	16.0	14.6	3.4
% below poverty level (last 12 months)	9.8	6.7	9.9	10.3	12.4
% foreign born	5.1	7.1	5.8	2.5	11.1

SOURCE: Data from the 2000 Census.

Overview of Report

In subsequent chapters of this report, we present the results of this pilot phase of our study of regional health quality improvement coalitions. The methodology that we used is summarized in Chapter 2. Chapters 3 through 6 describe the four regional coalitions included in the study. Each chapter presents information about one coalition, including a description of the coalition environment; formation; the development of goals and strategy; the implementation of initiatives; organizational structure and support; major milestones; and important changes over time. The information collected for this study is current as of mid-2002. Given that three of the coalitions have continued to progress since then, we have also included brief updates of their activities since June 2002. Chapter 3 describes the Cleveland Health Quality Choice program—the one coalition in the study that has now completed its full life cycle. Chapters 4, 5, and 6

describe respectively the experiences to date of the three other coalitions—Minnesota’s Institute for Clinical Systems Improvement, the Rochester Health Commission, and the Pittsburgh Regional Healthcare Initiative. Chapter 7 presents a summary of the key factors for success that were observed across the coalitions, and a conceptual model built from a synthesis of our case study findings and a review of systems models. Chapter 8 concludes with a set of general observations about regional health quality improvement coalitions and a number of testable hypotheses regarding factors that may contribute to their successful performance.

2. Methodology

This study of regional health quality improvement coalitions comprised several specific tasks: (1) gathering descriptive information about the coalitions, including their regional environments, histories, organizational structures, goals and initiatives, and member organization characteristics; (2) becoming acquainted with the coalitions and their participating organizations through information gathering, contacting individuals and groups, and conducting site visits; (3) establishing a conceptual model and related hypotheses to frame follow-on work, taking into consideration the learnings from the coalition sites as well as the literature on social and organizational systems.

Gathering of archival documents related to each coalition began in the fall of 2001. Information collected covered the period from coalition formation up until mid-2002. Site visit and telephone interviews were conducted in the spring of 2002 and were completed in June of that year.

Data Collection for the Cleveland Health Quality Choice

Because the CHQC was no longer in operation at the time this study was conducted, the methods used to collect information about this coalition differed somewhat from those used for the other three coalitions. We began by gathering archival documents and conducting interviews with several key informants. We quickly learned, however, that we would not be able to gain access to some of the key stakeholders in this coalition. The shutdown of the CHQC took place in 1999 amidst substantial conflict and controversy, and some of the participants preferred not to revisit this experience. In addition, since many had relocated to new positions, we decided that a site visit to Cleveland would not be useful. Instead we chose to use the telephone as our primary mode of information collection. We first prepared a list of stakeholders identified in materials published about the CHQC. Then, we contacted these individuals and asked if they would be willing to be interviewed about the history of the CHQC and their experiences and views of its activities. We also obtained a substantial quantity of written documentation from some of the stakeholders, as well as leads to information sources on the Internet.

Telephone interviews were scheduled with those individuals who agreed to be interviewed. (See Appendix B for the telephone interview schedule.) We advised each person that they could stop the interview at any time and that all information from the interviews would be reported in aggregate form. Verbal informed consent was obtained before beginning each interview. Many of the individuals interviewed were quite responsive and helpful, and we were able to gain a thorough understanding of the origins, operations, and termination of the CHQC, including a diversity of policy, political, and technical issues involved in the quality-reporting program it conducted. Interviews were held with the following categories of CHQC stakeholders:

- CHQC management staff or contractors—three individuals
- Representatives of participating hospitals—two individuals
- Representatives of the business community—two individuals
- Physicians involved in CHQC activities—two individuals
- One newspaper reporter who covered CHQC activities.

Although we were unable to interview all key stakeholders, the interviews that were conducted did touch upon each of the key CHQC stakeholder groups (participant hospitals, involved physicians, the business community, and CHQC staff), as well as obtain insight from a knowledgeable external observer.

Collection and Review of Archival Documents

The project team collected archival documents from participants in each of the four coalitions that provide descriptive information on how they are organized and operated, their priorities and strategies, and programs being undertaken. These documents include coalition newsletters, newspaper articles in which the coalitions are highlighted, corporate bylaws, strategic plans, annual reports, other coalition reports and written work products, and website information. Collected documents were inventoried and entered into a filing system. Information gleaned from this documentation, and supplemented by follow-up inquiries, was used to develop a “taxonomy” of factual information for each coalition site. Each taxonomy includes the following major categories of information:

- Organization structure and support (e.g., legal form, governance, membership, financing and budget, philosophy for decisionmaking)
- Roles and responsibilities (e.g., of the governing body, member organizations, management and staff)
- Goals, strategies, and actions (e.g., strategic focus, program focus, quality improvement [QI] process, training, marketing, monitoring and data collection)
- Environment (e.g., physical environment, political environment, health care market)

Gathering of Demographic and Economic Data

Demographic and economic data for each region were gathered as an additional source of descriptive information. All the sites defined the geographic boundaries for their regions as the Metropolitan Statistical Areas (MSAs) in which they are located. Although ICSI’s original MSA service area has since been extended statewide, we decided to use the Minneapolis–St. Paul MSA as the basis for describing the ICSI region. This area is where the history of ICSI’s evolution occurred, and statewide expansion was just being implemented at the time this study was conducted. Data obtained from Census 2000 included population size, age, race/ethnicity, education, income, and residential dispersion across urban and rural areas.

Telephone and Site Visit Interviews

Interviews performed during site visits or by telephone served as the richest source of information on the history and current operations of the three regional coalitions that are still operating. As described above, only telephone interviews were conducted for the CHQC.

Interview Protocol

An interview protocol was developed and used as a guide for collecting information across all sites and stakeholder groups, through either face-to-face meetings during site visits or

supplemental telephone interviews. The protocol covered nine discussion topics (see Appendix A for more detail):

1. Interviewee's background (with respect to the coalition)
2. Impetus for the coalition
3. History of the coalition development
4. Successes and challenges over time
5. Implications for the interviewee's organization
6. Implications for the community and health services
7. Changes needed to improve the operation
8. What direction the coalition should be going
9. Lessons for other communities.

Selection and Scheduling of Site Visit Interviews

Site visits, supplemented by additional telephone interviews, were conducted at ICSI, RHC, and PRHI between February and June 2002. One or two project team members participated in the site visits to each coalition, with some overlap across coalitions (i.e., one member visited more than one site). The primary purpose of the site visits was to engage in direct conversations with key coalition stakeholders, although some coalition meetings were also observed (e.g., ICSI membership's Annual Forum, RHC's Leapfrog Advisory Committee, PRHI's Agency for Healthcare Research and Quality [AHRQ] patient safety grant meeting). Our intention was to use these interviews not only as a vehicle for gathering information about the coalitions but also for building relationships with key participants at each site in order to establish a foundation of trust in preparation for a more extensive future longitudinal study.

Key stakeholder groups and specific interviewees for each coalition were identified through discussions among RAND project team members and key contacts at the coalitions. Every effort was made to match key stakeholder groups across coalitions in order to maximize the comparability of our interview findings. Table 2 provides an overview of the key stakeholder groups and the number and type of interviews conducted in each category across the three site-visited coalitions.

Once appropriate interviewees were identified and site visit dates set, our coalition liaisons contacted each individual or party and scheduled the interview. The site visit at RHC was conducted in February 2002. Two site visits were conducted at ICSI in March and June of 2002, and the site visit at PRHI was conducted in April 2002. (See Appendix B for detailed site interview agendas.) Preinterview packets, including background information on RAND Health, a description of the study being conducted, the interview topics to be covered, and the curriculum vitae of the RAND interviewer(s), were sent to each interviewee prior to the scheduled interview.

**Table 2:
Type and Number of Interviews by Key Stakeholder Group Across Coalition Sites**

ICSI	RHC	PRHI
<i>Physicians and clinics</i> <ul style="list-style-type: none"> ▪ 6 interviews ▪ ICSI provider member organizations 	<i>Physicians and clinics</i> <ul style="list-style-type: none"> ▪ 4 interviews ▪ Variety of physicians (Rochester Individual Practice Association [RIPA], Medical Society, private practice) 	<i>Physicians and clinics</i> <ul style="list-style-type: none"> ▪ 4 interviews ▪ Physician leaders
	<i>Hospitals, other institutional providers</i> <ul style="list-style-type: none"> ▪ 4 interviews (5 people) ▪ Health care systems and providers 	<i>Hospitals, other institutional providers</i> <ul style="list-style-type: none"> ▪ 5 interviews (8 people) ▪ Hospital, health system leaders
<i>Health plans</i> <ul style="list-style-type: none"> ▪ 4 interviews ▪ 3 sponsoring health plans 	<i>Health plans</i> <ul style="list-style-type: none"> ▪ 5 interviews ▪ Both major insurers ▪ 2 physicians employed by an insurer 	<i>Health plans</i> <ul style="list-style-type: none"> ▪ 1 interview ▪ Highmark Blue Cross and Blue Shield (BCBS)
	<i>Business leaders</i> <ul style="list-style-type: none"> ▪ 5 interviews (6 people) 	<i>Business leaders</i> <ul style="list-style-type: none"> ▪ 5 interviews (some board members)
<i>Coalition staff</i> <ul style="list-style-type: none"> ▪ 5 interviews 	<i>Coalition staff</i> <ul style="list-style-type: none"> ▪ 2 interviews (5 people) 	<i>Coalition staff</i> <ul style="list-style-type: none"> ▪ 6 interviews (7 people)
<i>Others</i> <ul style="list-style-type: none"> ▪ 1 interview 	<i>Others</i> <ul style="list-style-type: none"> ▪ 6 interviews (some board members) 	<i>Others</i> <ul style="list-style-type: none"> ▪ 3 interviews (4 people)
TOTAL: 16 interviews	TOTAL: 26 interviews (31 people)	TOTAL: 24 interviews (29 people)

Interview Analysis and Verification of Findings

A set of sequential steps was followed to ensure a thorough and objective analysis of the qualitative interview data across the coalition sites:

1. Using the interview protocol as a guide, project team members took separate interview notes during site visits and telephone interviews (note that for a relatively small number of interviews, only one research team member was present).
2. Discussions among project team members were held following each site visit or set of telephone interviews to compare and crosscheck notes and resolve any conflicting information.
3. Individual interview write-ups were prepared and organized by key stakeholder group.
4. A new project team member, with no previous exposure to the study or the regional coalitions involved, reviewed all the interview write-ups and recorded emerging themes, noting the theme description and the number of interviewees expressing that theme. This was done by stakeholder group within and across the coalitions.
5. As another crosscheck, an original project team member was assigned to the coalition with which she had the least involvement to conduct the same exercise described in (4) above.

6. To ensure the validity of the emerging themes, themes for each coalition were compared across “raters” for inter-rater reliability and to resolve any conflicts. The original project team member most familiar with each coalition reviewed and discussed the resultant themes with the two members responsible for their development.
7. Upon final determination of emerging themes for each coalition across stakeholder groups, the full project team worked together to synthesize common themes across all coalitions.
8. As a final face validity check, a first draft of this report was distributed to the leaders of each (still-active) coalition and their feedback requested.

Conceptual Model and Hypotheses Development

The project team drew upon the literature of systems from a variety of natural, behavioral, and social science disciplines to provide background and a framework for developing a conceptual model of the formation and ongoing operation of regional health quality improvement coalitions. This literature was combined with the synthesized findings of the individual coalition case studies to construct the conceptual model. The synthesized case study findings and the conceptual model were then used to guide the development and organization of a set of testable hypotheses regarding regional coalitions for health care quality improvement. The hypotheses, along with a description of their respective sites, were then vetted to the leadership of each (still-active) coalition for their feedback and verification. Based on their feedback, the project team refined the hypotheses to their current state. Both the conceptual model and the hypotheses should serve as a useful foundation for future research on the nature, development, and sustainability of regional initiatives for health care quality improvement, as well as related field applications.

3. Cleveland Health Quality Choice Program— Lessons from a Life Cycle Completed

The Cleveland Health Quality Choice (CHQC) program was one of the first regional health quality initiatives in the country. It broke new ground in bringing together competing stakeholders for the purpose of collaborative measurement and reporting of hospital performance on selected quality of care indicators. The CHQC became a model for many other similar efforts elsewhere in the country, and it was studied by all three of the other regional coalitions included in our study during their formative stages.

Coalition Environment

In 1990, when the Cleveland Health Quality Choice (CHQC) began operation, the Cleveland health care market had more than 30 hospitals, most of which were freestanding organizations. Despite this large number of hospitals, which should have stimulated some competition, the costs of care had escalated. Local employers were displeased with their costs and concerned that they were not getting value for their spending. During the 1990s, the Cleveland market consolidated through aggressive mergers and buyouts undertaken by the Cleveland Clinic and University Hospital system. This has resulted in a smaller number of large health care systems today, each with multiple hospitals. This consolidation increased the market power of the surviving health systems and strengthened their positions in negotiations with purchasers and insurers. In terms of the insurance market, HMOs currently cover an estimated 27 percent of the market, and managed care in general is 82 percent of the market. No single HMO or other insurer has a dominant market share.

Coalition Formation

In 1989, a coalition of 10 chief executive officers of Cleveland's largest businesses decided that something needed to be done about the high cost of health care in Cleveland. Their concern was mobilized into action by a study performed in the late 1980s showing that it would be more cost-effective for a Cleveland resident to fly to the Mayo Clinic in Minnesota for cardiac bypass surgery than to have it performed in Cleveland.

The organization of the CHQC was guided by a model called the Buy Right concept for health care that was developed by Walter McClure, a health care strategist and founder of the Center for Policy Studies in Minneapolis, Minnesota. Based on economic theory of a competitive market, this model states that when local employers organize to direct their purchases of health care services toward high quality providers, the providers in the area will respond by improving quality and controlling costs (McClure, 1992). This model was applied in Cleveland by making publicly available information about hospital performance based on selected health care indicators and having a public commitment by employers to shift their business to those hospitals that were shown to provide higher quality care.

Formation of the CHQC began when business leaders approached the chief executive officers of several Cleveland area hospitals with a proposal to collect and report data on the quality of the hospital care that local businesses were purchasing for their employees. The area hospitals

initially resisted this proposal. When the business community declared its intention to move forward by measuring the quality of hospital care using government data, however, 31 hospitals joined the effort to ensure the accuracy and clinical appropriateness of the data. Representatives from Cleveland's businesses, hospitals, and physicians came together under the umbrella of the Greater Cleveland Health Quality Choice Coalition (GCHQCC) to form the CHQC. Even though the area hospitals participated throughout the life of the CHQC, many were reluctant participants and others were skeptical that the quality reporting process would fulfill its purpose.

Development of Goals and Strategy

Guided by the Buy Right model, the goal of the CHQC was to improve the cost effectiveness of hospital care by reporting data on the quality of care provided by local hospitals and encouraging employers and patients to choose high-performing providers for health care. The participating hospitals agreed to adopt a standardized method to objectively measure risk-adjusted outcomes of care and patient satisfaction. Business agreed to disseminate this information to employees, encouraging them to use the high-performing hospitals, and to change contracting arrangements in order to shift use to those high-performing hospitals.

Implementation of Initiatives

Work on the hospital performance measures began in 1990, before the coalition was organized as a formal corporation. After determining that no effective quality measures for hospital performance currently existed, and following much debate, a consensus was reached that the CHQC would develop indicators for both clinical quality and patient satisfaction. The clinical indicators would be provided by the hospitals and would measure general inpatient care for medical, surgical, obstetric, and intensive care services, working in accordance with standard specifications for data extraction and analysis developed by the CHQC. A consumer survey was conducted each year for the customer service measures.

Three tools were used for data collection and measurement:

- APACHE™ III (Acute Physiology and Chronic Health Evaluation)—measures severity adjusted outcomes for patients in adult medical and surgical intensive care units and compares them against national norms;
- Cleveland Hospital Outcome Indicators of Care Evaluation (CHOICESM)—a system developed exclusively for the CHQC by Dr. Michael Pine, a Chicago cardiologist, that collects information about patients at participating hospitals and compares their severity adjusted outcomes for inpatient medical, surgical, and obstetrical services;
- The Patient Viewpoint SurveySM—measures patient satisfaction covering 11 categories related to hospital systems and care by physicians, nurses, and other hospital staff, using satisfaction items as well as items on health and functional status.

The first CHQC hospital performance report was published on April 28, 1993, three years after formation of the coalition and one year later than the promised release date. The delay was caused by controversy about the CHOICE model and related measurement issues. The larger hospitals maintained that the measures made their outcomes and length of stay look worse than reality. Larger hospitals typically get the sickest patients, and the CHOICE model did not adjust

sufficiently for this adverse selection. In general, hospitals that were dissatisfied with their measures tended to look for measurement flaws, slowing down the development process. CHQC continued to test and revise the measurement methods and data until participants were satisfied, using a consensus method for decisionmaking.

A public relations firm was hired to develop and implement a plan for dissemination of the quality report data to the hospitals and the community. A marketing campaign was designed to achieve “buy-in” for the report, targeting corporate leaders, hospitals, community leaders and groups, and the local and national media. Briefings were held to explain the program before reports were released and to set realistic expectations regarding the report. One-day workshops were held for members one month before the report was released. A deal was negotiated with the largest local paper, *The Plain Dealer*, giving it early access to the reports one day before the hospitals and general public received them. Although there was concern that inappropriate interpretation of the information could have derailed the program, the Cleveland news media were reported to have acted responsibly on reporting the performance measures. Semiannual meetings of a Report Users’ Group were held to discuss the contents of the reports. In addition, there was a quarterly newsletter designed to invite suggestions for program enhancements.

Only members of the CHQC could receive the full 400-page quality report, which contained historical data, description of the measurement methodology, and comparative tables. It also presented the details of the performance rates, including observed outcomes and predicted outcomes after risk adjustment. A shorter summary report, entitled “The Greater Cleveland-Consumer Report on Hospital Performance,” was published for the community’s consumers and could be purchased in local pharmacies or by sending \$5 to the Quality Information Management Corporation. This report was prepared to allay hospitals’ concerns that a hospital with strong performance measures would release the information to the media for marketing purposes, despite agreements by all participating hospitals that this information would remain confidential. In the early years, thousands of requests for the public summary reports were received from across the nation. Eleven states with interest in modeling similar programs requested information kits. A meeting with the Secretary of Health and Human Services was arranged, and several CHQC members testified before Congress.

CHQC reports were published on a semiannual basis from April 1993 through 1998. The report was modified over time, including the addition and deletion of some outcome indicators and tracking of trend data from previous reports. The CHQC also intended to expand the program by capturing performance data electronically, establishing an electronic database for public access, developing a central repository of outcomes data, and enhancing the data analysis and education services for its members.

However, as time passed, it became clear that the business community was not shifting its business to the hospitals with the best performance on the quality indicators. Business leaders were happy with the results of the initiative, but rather than switching their business, they used the information to work with hospitals and encourage them to make improvements. As a result, the hospitals concluded they were not getting an adequate return on the time-consuming investment they had made in data collection and analysis. At the same time, the CHQC raised the bar by starting to pursue the measurement of costs of care, which was very threatening to the hospitals.

Organizational Structure and Support

Initial oversight of the CHQC program was provided by a steering committee of 25 members, composed of health care executives, business leaders, and physicians. A separate Systems Advisory Committee recommended the outcomes to be measured and the methodology to be used. During the initial phase of the coalition (1989 to 1990), other committees were formed for Project Management, Information Service and Finance, Incentive Benefits, and Communications.

In 1991, GCHQCC formed a 501(c)(3) not-for-profit corporation called the Quality Information Management Corporation (QIMC) that assumed oversight responsibility for the CHQC program, replacing the Systems Advisory Committee. The original board of directors had nine members, five of whom were appointed by Cleveland Tomorrow, an association of the largest businesses in the area and one of the founders of CHQC. These appointees included one member from Cleveland Tomorrow, two members from the Council on Small Enterprises (COSE, an association of small businesses), and two from the Health Action Council (a business group that addresses health care issues). The hospital association and Academy of Medicine each appointed two board members. In the late 1990s, the board was enlarged to 15 members, including managed care representatives and at-large members. Consumers were not represented on the board but were appointed to several board committees.

Functions of the QIMC included overseeing data collection and analysis, and reporting performance measures for the agreed-upon hospital quality indicators. These functions were performed by three committees: (1) a systems advisory committee that evaluated and recommended specific methods for measuring quality across all Cleveland hospitals; (2) an incentive benefits committee that educated local employers on the use of hospital quality indicators for selective purchasing and integrating different indicators for purchasing decisions; and (3) a communications committee that developed educational programs and provided recommendations regarding internal and external communications about the program.

The CHQC was staffed initially out of the Greater Cleveland Hospital Association and Cleveland Tomorrow until an executive director was hired in 1993. The CHQC staff was small throughout its lifetime, including the executive director, a part-time consultant on outcomes research, and support staff, supplemented by outside contracts for data audits and marketing.

The cost of CHQC operations and the quality reports it produced totaled approximately \$3 million annually. The CHQC annual operating budget was initially about \$600,000. The 31 hospitals incurred costs of about \$2.4 million annually for patient survey data collection and data processing for their performance on quality indicators (e.g., investments in software, training of employees, data extraction from medical records, payment for the consumer satisfaction survey, data analysis). The CHQC's first three years of operating expenses were funded by the Cleveland business community and some foundation grants. To help support its continuation, the CHQC staff began to sell their services as consultants to other hospitals, networks, and coalitions. CHQC also licensed its version of the APACHE program and sold it nationwide. Grants from the Cleveland Foundation, COSE, and Cleveland Tomorrow helped allay some of the financial problems. According to the former executive director of the CHQC, the biggest part of the job was raising money to keep the coalition solvent.

Major Milestones

The following events have been identified as the major milestones in CHQC's nine-year life cycle.

- 1989 The study documenting the high cost of care in Cleveland for cardiac bypass surgery is published. The Buy Right model is adopted by local business leaders, and efforts to form a coalition for reporting on quality performance of hospitals begins.
- 1990 CHQC activities begin, with the coalition operating as a voluntary group with oversight by a steering committee of 25 members and staff support from Cleveland Tomorrow. Initial decisions are made on the scope of performance indicators and measurement tools.
- 1991 The QIMC is formally organized as a not-for-profit corporation, assuming oversight of the CHQC activities. The first coded performance data are released to the hospitals on a trial basis for their feedback.
- 1992 Measurement of performance quality indicators continues with feedback from participating hospitals.
- 1993 The first CHQC report is released to its members, and a summary report is disseminated to the public.
- 1996 The Cleveland Clinic releases a 55-page critique of CHQC, attacking the information contained in its reports. CHQC refutes this critique using the services of outside experts.
- 1997 The Health Action Council of Cleveland designates five large hospitals as centers of excellence and contracts with them as preferred providers of 22 medical services. This process does not make use of the hospital performance information in the CHQC reports, and hospitals perceive this action as counter to the intent of CHQC.
- 1999 The Cleveland Clinic withdraws its participation in the CHQC, stating that its decision is based on cost and lack of return for dollars spent on the program. A spokesperson states that the Clinic is withdrawing because no one uses the program, not because the Clinic does not bode well on the indicators. The CHQC disbands in February 1999. In August 1999, *The Plain Dealer* publishes an editorial stating that the CHQC improved the quality of medical care in Northeast Ohio by enhancing self-scrutiny among its hospitals.

Important Changes Over Time

One of the unique characteristics of the CHQC was the fact that little change was made in its organizational structure, financing arrangements, or program activities in the nine years of its existence. Anchoring its work in the Buy Right concept, the CHQC focused on establishing the performance indicators and measurement methodology for monitoring the quality of care hospitals in the region and then generating regular reports on hospital performance based on those indicators. The CHQC discontinued operation in 1999, having not modified its substantive scope or operations since inception.

Discontinuation of Cleveland Health Quality Choice

As early as 1995, the Cleveland Health Quality Choice project recognized the need to broaden the scope of information provided to its corporate members. Measurement of chemical dependency and mental health programs, emergency medicine and trauma services, outpatient surgery, home health, and physician office practices were identified as possible new areas for

quality measurement. During that time, Dr. Dwain Harper, executive director of CHQC, stated that “health care is moving in a continuum, if all we do is put out a report, sooner or later that becomes the death knell for the project.” Expansion of the project, which was estimated to cost an additional \$1.4 million, did not take place. Additionally, the CHQC initially had promised its members other information, such as comparisons of hospital prices, rates of medical complications, and hospital readmissions, which did not come to fruition because the coalition weakened over time.

In January 1999, the Cleveland Clinic announced that it was discontinuing its participation in the CHQC, and other hospitals followed its lead. The CHQC ceased operation in February 1999, amidst reports of acrimonious exchanges and accusations among many parties. From a review of the history and scope of its work, one potentially important reason for the discontinuation of the CHQC was that it had not evolved with changes in regional and national priorities over time. Interest in the report cards lagged in the last few years because business leaders had gotten what they wanted, the previously steep increases in health care costs had abated, and the consumer community lost interest in “old news.” The Buy Right model had not succeeded because business did not direct new business to higher performing hospitals. The CHQC board had not undertaken any strategic planning to identify current issues and define new directions. It appears that it simply ran out of work for its one program, and discontinuing the operation may have been a natural endpoint, despite the political upheavals surrounding it.

4. Institute for Clinical Systems Improvement— Growth and Expansion

Coalition Environment

The health care insurance market in Minnesota is dominated by HMOs and managed fee-for-service insurance. Three health plans dominate the state: the Blues, HealthPartners, and Medica. Altogether they provide insurance for about 80 percent of Minnesotans. In the early 1990s, the Business Health Care Action Group (BHCAG), a coalition of large employers, attempted to establish a coordinated self-insured product for their employees and dependents, but this approach attracted only about 100,000 enrollees. Capitation was in widespread use in the early 1990s, but the proportion of the insured population covered under this arrangement has decreased over the past decade while the proportion covered under managed fee-for-service plans has increased. There are no national insurers with significant market shares in Minnesota. For-profit HMOs are illegal.

Medical practice in Minnesota is characterized by group practices of 50 or more physicians; physicians practicing solo are distinctly unusual. In the Twin Cities, hospital care is generally provided by hospitals that belong to larger systems; only one metropolitan hospital remains independent. None of the health care systems has a dominant market share. Outside of the Twin Cities, hospital care is generally provided by smaller, free-standing community hospitals.

Coalition Formation

In 1992, BHCAG issued a request for proposals (RFP) to develop an integrated, quality-oriented health care delivery system. The RFP was motivated by BHCAG's desire to cut health care costs, reduce variation, improve quality, and establish some sense of value for health care dollars spent. The BHCAG RFP did not offer funding for its request but instead promised increased market share to those organizations that would work with BHCAG to design the best processes of care, report care outcomes, and be held accountable for care improvement.

Eighteen months before the RFP was issued, merger negotiations had started between two health plans: Group Health and Med Centers. During these discussions, the idea of a joint quality institute was conceptualized but never pursued. The BHCAG RFP, however, served as a catalyst for resurrecting the quality institute idea and transforming it into a concrete plan for an Institute for Clinical Systems Integration (ICSI). The plan for the Institute followed the goals of the health plan merger: a consumer-driven health plan (named HealthPartners Health Plan) with "integrated" medical practices. The medical groups to be integrated were Group Health Medical Group and Clinics and Park Nicollet Clinics, the associated practices of Group Health and Med Centers Health Plans, respectively. The Institute for Clinical Systems Integration (ICSI) was conceptualized as the entity for carrying out this integration and was championed by the then Medical Director of Group Health Health Plan and the president and chief executive officer of Park Nicollet Health Services. The Mayo Clinic also was asked to join the Group Health (later

HealthPartners) and Park Nicollet medical groups as the third founding member of the planned organization.

In response to the BHCAG RFP, the ICSI coalition submitted a proposal that defined its plan for the merged health plan and the integration of its related medical practices. The plan was developed through a formal, facilitated process, led by the president and chief executive officer of Park Nicollet Health Services, that included collaboration of over 70 individuals associated with the health plans and clinics. It proposed that the merged health plan and the previously competing group practices would operate as a fully integrated care system to measure outcomes, develop practice guidelines, and meet other BHCAG requirements. The proposal was awarded by BHCAG, and, within months, official plans were made for the incorporation of ICSI, which took place in January 1993. This collaborative organization crossed the boundaries of three major medical organizations, two large health insurance plans, and the business community. Although BHCAG served as a catalyst for the formalization of the HealthPartners/ICSI plan, the leadership and vision from within the merging health plans and group practices were instrumental to its formation and development.

Development of Goals and Strategy

The mission of the ICSI collaboration today is “to champion the cause of health care quality and to accelerate improvement in the value of the health care [they] deliver.” ICSI seeks to improve statewide health care outcomes through the consistent use of evidence-based practice protocols that are developed by physicians and sponsored by all major health plans. Sponsors do not view or use ICSI for advertising purposes or competitive advantage, nor do they ask that member data be publicly reported. It is clear from the tone and direction of the ICSI board that the goal of the collaboration is improvement, as opposed to public reporting, and that there is a valid, moral, common motivation among the sponsoring plans to improve health care in the region.

ICSI’s initial goals were to standardize health care processes; improve health care outcomes; maintain high levels of patient, purchaser, and provider satisfaction; and embed information systems in the daily practice of health care providers. ICSI’s strategy has been to uniquely position itself by fostering (1) buy-in across all stakeholders, through actively involving physicians, nurses, health care managers, health plans, purchasers, and consumers at all stages of decisionmaking processes, and (2) quick and efficient implementation of findings through the active participation of member medical groups in the development of ICSI products and services.

Implementation of Initiatives

The ICSI program has four principal components: scientific groundwork for health care, core commitment (from members), support for improvement (from ICSI), and the Minnesota health quality agenda.

The first component of the ICSI program is *scientific groundwork for health care*, which consists of two major initiatives: (1) health care guidelines and (2) technology assessment reports. The health care guidelines have been a cornerstone of ICSI activity since its inception. To date, over 50 guidelines have been developed, providing a common foundation for care and improvement initiatives across ICSI’s member medical groups. For each guideline, an appropriate work group is formed from the pool of ICSI members to gather the best available evidence on the specified

topic and draft a guideline. Technology assessment reports provide clinicians with information about the safety and efficacy of emerging medical technologies. They are written by member physicians and other health care providers and are continuously reviewed. To date, over 60 technology assessment reports have been produced.

The second component of the ICSI program is the *core commitment cycle*. The core commitment cycle consists of ICSI members each choosing clinical and/or service-related topics for intensive improvement efforts each year. All members submit a statement of goals and measures of attainment for each separate initiative. At the end of the year, members report their results, which are shared across the ICSI membership. During the first two years of membership (Phase I), only one or two topics are chosen for improvement, but longer-term members (Phase II) choose four or more topics per year. Clinical topics are often supported by ICSI clinical guidelines, while service-related topics usually pertain to the consumers' experience in obtaining care.

The third major component of the program is ICSI's *support for improvement* across its membership, which is carried out through a variety of activities: education and training in continuous improvement theory and methods, clinical improvement resources and coaching, structured improvement collaboratives, and knowledge products. Additionally, a Phase I training course has been developed for new member groups to ensure that they possess the capacity and capability to participate in ICSI as full-fledged (Phase II) members.

The fourth ICSI program component is the *Minnesota health quality agenda*—an outreach initiative designed to champion health care quality throughout the state. ICSI's health quality agenda focuses on improving the environment for supporting the delivery of high quality health care by advocating for health care quality and serving as an advisor and active participant in community health care quality decisionmaking. Additionally, many ICSI knowledge products are available to the public on its website. ICSI staff members regularly present ICSI activities at conferences, and ICSI-related work is published in health care journals, all of which contribute to ICSI's health quality education and advocacy agenda.

In order to be more responsive to its membership and more effective in its programming and mission, ICSI's activities, especially those falling under the *support for improvement* component, are continuously shaped by the quality improvement concepts and techniques that they espouse. Educational needs assessments are conducted annually across ICSI membership to determine topic areas for the following year's workshops and other educational programming. Finally, each year since its inception, ICSI has hired the same consultant to interview and/or survey a variety of ICSI members and provide feedback on its programming effectiveness, responsiveness to member needs, and ICSI approaches and direction, as well as related membership thoughts, expectations, and experiences.

Organizational Structure and Support

In spring 2002, ICSI was sponsored by five Minnesota health plans. HealthPartners, Inc. (the founding sponsor), Blue Cross and Blue Shield of Minnesota, and Medica are principal sponsors, providing the majority of financial support to ICSI. PreferredOne and UCare Minnesota are associate sponsors. Each principal sponsor contributes \$1 million annually, and associate sponsors contribute \$50,000, for a total ICSI annual operating budget of \$3.1 million.

ICSI is an independent, nonprofit organization (Internal Revenue Code 501[c][3]) with a 17-member board of directors. The composition of the board is outlined in the ICSI bylaws and includes seven appointed directors, four ex-officio directors, and six other elected or appointed directors. The board includes two directors each from the three founding member provider groups, the medical directors from the three principal sponsor health plans, the executive director of ICSI, representatives from other provider groups and two others who are either the health plan enrollees or employers who purchase insurance from the health plans.

Decisions of the board of directors are made by a majority vote among directors present, provided that at least one such vote comes from each of the pairs of representatives from each of the founding medical groups. A quorum for the transaction of business is constituted by a majority of the directors currently holding office, which must include one director from each of the three founding medical groups and the Medical Director of HealthPartners, Inc.

The ICSI board of directors appoints three officers for the corporation—an executive director, an executive secretary, and a chief financial officer. All other ICSI staff are hired under the purview of the executive director. There are a total of 21 ICSI staff members. These 21 positions include the three appointed officers described above, a medical director, four managers (for health care evidence analysis, health care guidelines, collaboratives and patient-centered improvement, and education and resources for improvement), a health care evidence analyst, three guideline work group facilitators, three care improvement facilitators, one operations coordinator, three technical specialists/assistants, and two senior administrative secretaries.

ICSI provides health care quality improvement services to 33 member medical groups. These groups range in size from eight to over 1,000 practitioners, representing over 5,300 physicians (60 percent of all Minnesota physicians) and 60 percent of Minnesota insured citizens. ICSI member groups are located across Minnesota, western Wisconsin (River Falls) and eastern North Dakota (Fargo). Most are multispecialty practices, but a few are specialty care clinics and/or hospitals.

ICSI does very little or no marketing of its programming and services within the community. Generally, medical groups come to ICSI with inquiries regarding membership requirements and benefits. Any medical group or hospital holding a contract with any of the ICSI sponsoring health plans is eligible to apply for ICSI membership. Eligible groups, however, must go through a thorough application process, illustrating both a commitment of staff time for ICSI participation and a commitment to quality improvement. The application process does not proceed if the potential member organization does not demonstrate that it is capable of meeting ICSI obligations. By the time an application gets to the board for approval, it is evident that the applicant is committed and prepared to undertake the tasks ahead. Once board approval is obtained, ICSI members are expected to complete Phase I training, if deemed appropriate, and are held accountable for maintaining their core commitment to ICSI.

Major Milestones

The following events have been identified as major ICSI milestones across its first 10 years of existence.

- 1992 Planning conference held to give shape to a new partnership of medical groups, health plans and employers (July); formation of the Institute for Clinical Systems Integration (ICSI) is announced (November).
- 1993 ICSI Articles of Incorporation filed and first meeting of board of directors held; process developed to create peer-reviewed, evidence-based medicine guidelines; 16 guidelines and seven technology assessment topics developed; by year-end, 12 medical groups participating in ICSI program.
- 1994 First guideline impact studies initiated to determine if implementation of ICSI guidelines improves quality and reduces costs.
- 1995 First guideline impact studies completed; nine new guidelines developed.
- 1996 Evidence orientation in guideline development is strengthened; Six of the original medical groups have implemented 24 guidelines, as required by BHCAG.
- 1997 BHCAG discontinues its 15 percent funding sponsorship of ICSI; emphasis shifts from guideline development to support for medical groups implementing guidelines for clinical improvement; action groups formed to help medical groups implement guidelines; structured member training programs developed for guideline implementation and continuous improvement; conference cosponsored with Institute for Healthcare Improvement (IHI).
- 1999 Name changed from Institute for Clinical Systems *Integration* to Institute for Clinical Systems *Improvement* to better reflect newly focused mission; ICSI member medical groups begin “core commitment” cycle (four or more topics annually for intensive improvement).
- 2000 ICSI takes training on location to medical groups; BHCAG no longer involved in ICSI activities or represented on ICSI committees; first service-related action group formed.
- 2001 Sponsorship expanded to include Blue Cross and Blue Shield of Minnesota, Medica, PreferredOne, and UCare Minnesota, creating a “Minnesota Model” (statewide) for improving health care; at year-end, there were 27 medical groups participating in the ICSI program.

Important Changes Over Time

Sponsorship: Although an integral part of the ICSI program in its early years, BHCAG gradually withdrew its involvement. In 1997, when BHCAG discontinued its 15 percent funding sponsorship of ICSI, the coalition was able to drop BHCAG’s excessive and often counterproductive reporting requirements and focus specifically on quality improvement efforts. Without BHCAG’s sponsorship, however, ICSI was solely funded and thus appeared to be driven solely by HealthPartners, Inc., as opposed to the wider regional coalition it had been and still aspired to be. The leadership of HealthPartners and the Executive Director of ICSI went to work on expanding sponsorship and building greater community momentum toward becoming a Minnesota model for health care improvement. In March 2001, four leading Minnesota health plans joined HealthPartners in sponsoring ICSI. Two of the plans, Blue Cross and Blue Shield of Minnesota and Medica, joined as additional principal sponsors, and PreferredOne and UCare Minnesota joined as associate sponsors.

Leadership: The expansion of health plan sponsorship of ICSI in 2001 resulted in a related change in the structure of the ICSI board of directors. The ICSI bylaws state that the board must

always maintain a majority of provider member organizations and that only a provider member organization representative can serve as board chairperson. Thus, when representatives from the two new principal sponsoring plans were given seats on the board, additional provider member organization seats were also created to maintain the required majority.

Membership: Following discontinuation of BHCAG's sponsorship in 1997 and the subsequent initiation of ICSI's "core commitment cycle," ICSI member groups were asked to choose whether they would be designated as Phase I or Phase II members. Phase I members were newer ICSI members with less quality improvement experience, while Phase II members were longer standing members with a history of quality improvement experience. Phase I members did not have to perform the full core commitment for the first two years of membership, but rather committed to four ICSI learning sessions each year that centered on training in measurement for improvement and strategic planning.

As a result of its expanded sponsorship, ICSI's membership increased significantly. In 2001 alone, ICSI grew from 18 members representing 3,200 physicians and five hospitals to 27 members representing 4,500 physicians and 16 hospitals. To accommodate this vast new membership, Phase I training was further enhanced to include such topics as building consensus, implementation structures, change management, and patient empowerment and communication. Training was designed as an interactive process across member groups. This expanded focus on implementation support for both Phase I and Phase II members has increased the sense of value of the coalition among participating medical groups.

Goals, Programs, and Process: Not long after the formation of ICSI, the organization abandoned one of its original goals—to develop and implement a common, integrated information system to be used in the daily practice of health care providers across member provider organizations. This goal was determined to be unrealistic, both technically and financially.

As BHCAG began withdrawing from ICSI, the organization shifted its focus from supporting clinical guideline development to supporting guideline implementation and the assessment of related patient outcomes. Member organizations were no longer required to implement all ICSI guidelines and report specified data requirements for each to BHCAG. Rather, they were required to choose four topic areas per year as improvement efforts (initially, a set of four ICSI clinical guidelines) and to report progress back to ICSI as deemed appropriate, with guidance provided within the guidelines themselves and through ICSI contact and training. This was the beginning of the "core commitment cycle."

To reflect the shift toward a greater emphasis on the implementation of care improvement efforts, ICSI changed its name in 1999 from the Institute for Clinical Systems Integration (which had reflected the original goal to virtually integrate all member medical groups) to the Institute for Clinical Systems Improvement. The name change was indicative of the program modifications that had occurred subsequent to the ending of BHCAG sponsorship in 1997.

The adoption of the action group/collaborative model fostered a forum for shared learning across member organizations working on the same topic areas as part of their core commitment. These were originally only clinical guidelines topic areas but have since been expanded to include other topics of importance suggested by members, such as access and patient safety. Action groups include both physicians and QI representatives from member organizations and always include at least three Phase II members, to ensure adequate experience and to maximize learning across the

participating Phase I groups. Collaboratives produce reports that are shared with ICSI staff and the rest of the ICSI membership.

One outgrowth of the expanded sponsorship in 2001 was the formation of the Member-Sponsor Council, which is tasked to focus improvement efforts on one or two topics across all ICSI members and sponsors each year. The topic chosen for 2002 is the care of patients with diabetes. This collaboration around diabetes has brought the core commitment component of ICSI to an entirely new level. Every major health plan in the State of Minnesota and each ICSI member organization are implementing the same clinical guidelines, sharing process information and evaluations, and centralizing data collection and impact analyses toward unmatched statewide improvements in diabetes care. The commitment to ICSI made by the additional four health plans in March 2001 was in the form of a three-year contract, and it is understood that the contract renewal decision will partly depend upon improvements in diabetes outcomes across its membership.

Organizational Infrastructure: When sponsorship expanded in early 2001 and membership requests began rising, ICSI met the challenge of integrating the new health plan members and their associated medical groups by the hiring additional staff members, acquisition of additional office space, development of an enhanced Phase I education and integration program, and formation of member cohorts and staggered start dates.

What is notable about ICSI is that, ultimately, it has not really changed that much over time, aside from its course change after BHCAG's sponsorship withdrawal in 1997. Otherwise, the changes over time reported here merely represent expansions and enhancements to ICSI's original plan and basic principles developed in 1992. The coalition has managed to "stay the course" while still remaining flexible and adaptive in carrying out its plan.

Key Events Since June 2002

Since June 2002, ICSI has expanded to become truly statewide (including some additional spillover into bordering North Dakota and Wisconsin). In December 2002, the Metropolitan Health Plan joined ICSI as the sixth health plan (associate) sponsor, making ICSI's sponsorship as coming from *all* Minnesota-based health plans. ICSI total membership has grown from 27 members at the end of 2001, to 34 members at the end of 2002, to 40 members currently in mid-2003. The number of participating hospitals has increased as well. There were 16 hospitals participating in ICSI at the end of 2001, 35 at the end of 2002, and there are currently 37 in mid-2003. This growth in membership has led to an increase in the number of physicians affiliated with ICSI. In 2002, there were 5,300 physicians affiliated with ICSI, whereas today there are 6,000 (two-thirds of all Minnesota physicians). ICSI's total population area has increased from 3 million for the Twin Cities MSA to about 5 million for the State of Minnesota.

A notable new member of ICSI is the University of Minnesota's Academic Health Center, which joined in March 2003, mainly as a result of community pressure. All five of the Center's clinic sites are participating in ICSI programs and activities. With the University of Minnesota on board, Minnesota's County Hospital System is the only large system in the state not participating in ICSI.

While the ICSI program is very much the same as it was a year ago, enhancements have been made to the initial member orientation and training series, the action groups, the coaching

program, and outreach to the community (e.g., to state agencies, the legislature, and the press). Additionally, the Member-Sponsor Council is working on two topics this year. Along with the continuation of its work on evaluating diabetes outcomes, the Council is evaluating access (e.g., wait time for appointments) across ICSI membership.

5. Rochester Health Commission—Evolution and Change

Coalition Environment

The Rochester, New York, area has a long history of strong community interest in and influence over its health care system. Local businesses, led by Eastman Kodak Company and Xerox Corporation, that were concerned about rising health care costs created a strong base for community health planning in the 1970s. Blue Cross/Blue Shield was established as the principal health insurance carrier, covering more than 70 percent of the privately insured population. Capital investments by local hospitals were subject to community approval, health insurance premiums were community rated, and all-payer systems for paying providers were tested. Under this system, insurance premiums and payments to providers were kept below the national average, while hospitals in the Rochester area operated in a relatively risk-free financial environment.

The current Rochester health care market reflects these origins, and also the more recent active competition among health care providers, which was introduced by the same business leadership that had earlier created the community-based planning model. With the introduction of competition in the late 1980s, the 13 to 15 independent hospitals serving the market consolidated into three health care systems through hospital closures and mergers or takeovers. The largest of these systems, the University of Rochester Medical Center (URMC) and Strong Memorial Hospital, has a 60 percent share of the health care market. Blue Cross/Blue Shield, now part of the larger Excellus Corporation, covers 80 percent of the privately insured population. The remaining 20 percent of the insurance market is covered by Preferred Care, a managed care plan and, until recently, the only other coverage option in the area. During the past year, Aetna entered the market, brought in by Strong Memorial Hospital to expand competition among insurers. HMOs operated by these insurers currently have an estimated 70 percent penetration of the market.

Coalition Formation

The chain of events leading to the formation of the Rochester Health Commission (RHC) was stimulated by a report about the Rochester health system published by the General Accounting Office (GAO) in 1990. At the same time, there was growing discontent in the business community about escalation of health care costs and premiums. Business leaders faced an undesirable combination of issues—market consolidation with no resulting efficiencies or savings, along with sometimes acrimonious competition among providers and insurers that defeated attempts at collaboration for improvements.

Drawing on the community's strong foundation of stakeholder engagement and its history of health care improvement initiatives, a *Vision 2000* Committee was formed under the leadership of the Industrial Management Council (IMC) (an association of businesses in the Rochester area) to begin planning for the future of the Rochester health care system. This effort led to the formation of the Rochester Health Commission in 1995. The purpose of RHC was to develop data on local health care issues, provide education, and serve an oversight function. It was not

given power to mandate change but was envisioned as a small group to govern health care in Rochester.

Development of Goals and Strategy

The Rochester Health Commission defines itself as “a broad-based, independent, non-profit, community organization.” RHC is “dedicated to increasing the value provided by the health care system, as measured by health care quality, access, and cost, and to improving the health of the community.” Implicit in these statements is a philosophy of involving multiple stakeholders from all segments of the health care system, including consumers, business leaders, providers, and community interests. RHC’s mission is to bring stakeholders together, to provide them with objective information, and to enhance their ability to reach consensus on actions that are needed to continuously improve the Rochester health care system. RHC seeks to achieve this mission through three strategies: (1) providing data on health care performance for use by employers, consumers, and health care providers; (2) identifying opportunities for health system improvement and catalyzing efforts to address them; and (3) serving as an advocate for the health interests of the entire community.

The first initiative undertaken by RHC involved reporting on health plan and provider performance. When RHC began to collect data on hospitals, however, it met with some resistance. The hospitals were not happy with having to provide data on their own performance, especially since they were helping to support RHC financially. These concerns led to withdrawal of financial support and extended debates among RHC stakeholders regarding its role and authority. Two changes emerged from the debate. The first was to finance RHC operations from health insurance premiums, at a rate of 0.06 percent of premiums. The second was to create the Health Care Forum, an extension of RHC, as a platform for community debate and consensus-building on key issues, using a public forum process. The goals of the Health Care Forum were to convene stakeholders, drive innovation, build consensus, and establish accountability for quality and cost results.

The formation of the Health Care Forum shifted RHC’s focus away from a quality accountability role toward serving more as a facilitator for collaborative interventions to improve the local health care system. RHC continued to carry out the performance reporting function by publishing annual reports, but this function became less visible as more attention was focused on the Forum initiatives. In addition, RHC remained involved in the higher-level policy issues of health care costs and efficiencies. In this area, opinions among RHC stakeholders continue to vary regarding the role RHC should play in major negotiations among the powerful market players—the health systems and health insurance plans.

From the numerous projects that were identified and created through the Forum, the “Rochester Model” concept evolved as a foundation for all improvement initiatives. The “Rochester Model” uses the One Text process, originally developed through the Harvard Negotiation Process (Fisher, Ury, and Patton, 1991) and was introduced to RHC by Eastman Kodak. This process, which facilitates interest-based negotiation and consensus building across diverse stakeholder groups, was used to formulate the first Health Care Forum agreement and to establish priorities and strategies for future initiatives.

Implementation of Initiatives

The RHC program of work falls under two major areas—Community Performance Assessment and Health Care Forum Initiatives.

Community Performance Assessment encompasses a variety of data collection, analysis, and standard development activities designed to assess and improve health care performance across the community. Activities include the following:

- *Health System Performance Reports*—Annual reports are published on the performance of Rochester HMOs, addressing health care quality, member satisfaction, utilization of health services, and costs. A white paper on quality was published in 1997, followed by the first report on Health Plan Employer Data and Information Set (HEDIS) quality measures for local health plans and providers. RHC also published a report that examines the factors driving increases in the 2001 health plan premiums.
- *Clinical Guidelines*—RHC was approached by local providers and payers to provide a platform for the development of community-wide clinical guidelines. This work is guided by a Community-Wide Clinical Guidelines Steering Committee of representatives from physician groups, payers, and health systems with support from RHC and is intended to set community standards of care. A total of 14 clinical guidelines have been established to date.
- *Employer Health Benefits Survey*—Health benefits data are collected annually from area employers in cooperation with the Rochester Business Alliance (formally the IMC). Employers are provided with benchmark information on health plan offerings, employee eligibility, pricing structures, premium increases, and other benefits issues.
- *Premium Reports*—Data suggesting trends in health insurance premiums and the components of change contributing to premium increases are analyzed and reported.

Health Care Forum Initiatives now comprise the majority of RHC's work. In January through March 2000, an extensive public forum process was used to stimulate debate regarding health care issues in Rochester. Participants included broad representation from hospitals, physicians, other health professionals, insurers, the business community, local and county government personnel, consumers, and others. From this process, the Forum Leadership Group defined an overarching continuous improvement strategy for the Rochester health care system, which was reported to the community in a written report released on August 1, 2000. The One-Text Process was used to select and prioritize initiatives, yielding 10 initiatives that were to be undertaken collaboratively by the participating parties. Each initiative has one or more designated lead organizations, which are required to report back regularly to the community on progress in achieving their goals and objectives. The 10 original Forum initiatives are:

- Support community-wide clinical guidelines
- Reduce medical errors
- Address health care worker shortages
- Support Monroe County's HealthAction program
- Control growth in health system capacity
- Appoint a task force to remove barriers to reducing capacity

- Increase the efficiency of health care delivery by eliminating unnecessary administrative burdens
- Appoint a task force on access to care
- Benchmark health care quality and use incentives to enhance improvement efforts
- Report publicly on health system performance and stimulate use of the reports.

Two more initiatives were added later: improvement of end-of-life and palliative care and support of the national Leapfrog program. An initiative addressing end-of-life and palliative care that had already been developed by a local grass-roots coalition of community and provider organizations was integrated into the RHC initiative because its leadership felt RHC offered a vehicle for connecting all relevant parts of the system. The Leapfrog program, which had originally been a part of the larger medical errors initiative, was later developed as a separate initiative because the combined initiative was too large and the Leapfrog program involved its own set of activities.

Work began in 2002 to establish indicators for use in monitoring performance of the various initiatives in meeting their objectives and achieving desired effects on the health care system. The RHC has made measurement a priority so that it can assess the extent to which it is achieving meaningful progress toward its larger goal of enhancing health care value in Rochester.

RHC has invested substantial effort in communicating effectively with its various stakeholder groups. Public Health Care Forum meetings with the community are held twice a year to report progress on the Health Care Forum initiatives and to continue the dialogue on health care issues. Quarterly written progress reports also are prepared by the initiatives and published on the RHC website. Periodic updates are published in both paper and electronic format for distribution to a mailing list of interested parties. In addition, RHC website posts meeting minutes, press releases, and other newsworthy items. A good portion of the senior RHC staff's time is spent in meetings or other communications with RHC participants and other stakeholders.

RHC serves as a catalyst and leader of community-wide health care improvements by providing compelling reasons, structures, and processes for all stakeholders to come together to develop and implement quality improvement solutions and initiatives. RHC has been successful in bringing together competing organizations around a common problem or issue of concern. Its One Text process prevents participants from being positional, an important factor in keeping negotiations moving forward and building overall consensus.

Organizational Structure and Support

The Rochester Health Commission was organized under New York law in 1995 as a not-for-profit corporation (Internal Revenue Code 501[c][3]). RHC bylaws specify that it will provide community leadership for the planning, promotion, and development of a continuously improving local health care system. Bylaw restrictions state that RHC will not have regulatory powers or directly provide health care services.

A board of commissioners of between 16 to 25 members is specified in the bylaws. The original board of 15 members was expanded to 22 in order to include a broader representation of stakeholders. According to the bylaws, the board must include no less than four members from

each of four categories: business, consumers, providers, and representatives of other interest groups (e.g., labor, government, insurers). Members serve rotating three-year terms and may only serve two consecutive terms, although a member may be returned to the board after an absence of one year. RHC uses a structured nomination process in which the nominating committee solicits nominations. New commissioners are elected at each annual meeting of the commissioners.

According to the bylaws, the board makes decisions by majority vote of the commissioners present at the time of the vote, assuming a quorum is present. Actions may be taken by the board or any of its committees if all members of the board or committee consent in writing to the adoption of a resolution authorizing the action. In practice, the board tends to work by consensus vote.

The staff members of RHC provide day-to-day support for the work of the board of commissioners and the initiatives operating under the RHC's auspices. The chief executive officer of RHC started in this position in 1996, coming from a professional background of executive management in hospitals in the Rochester area. For several years, the only staff members were the chief executive officer and one other person. Now RHC has a total of 3.75 full-time-equivalent staff, including the chief executive officer, a full-time director of quality management, a director of forum initiatives, a project manager, an administrative assistant, and a secretary.

RHC makes substantial use of community involvement through sub-board level working and advisory groups. For example, the Forum Leadership Group is comprised of high-level community executives and is responsible for identifying and prioritizing Forum initiatives. There are also broad-based working groups associated with each of the Forum initiatives, as well as ad hoc groupings and advisory boards such as the Premium Data Gathering Group.

There is no other membership or sponsorship in RHC other than membership on the board of commissioners. However, interested parties can be placed on distribution lists to receive materials generated by the RHC, Health Care Forum initiatives, or other related activities, thus reflecting RHC's community-based structure and purpose.

The current annual budget of RHC is \$385,000. The management leadership believes it is unrealistic to expect additional support because the funding issue has been controversial and inevitably entwined with the continuing debate over which roles are appropriate for RHC. There also have been disagreements regarding appropriate mechanisms for generating funds to support RHC activities, an issue which also is inextricable from questions of RHC's role.

Major Milestones

The following events have been identified as major milestones for RHC over time:

- 1990* GAO publishes its report on the Rochester health system. IMC and other business leaders begin to discuss the future of health care in Rochester through the *Vision 2000* planning process.
- 1994* The Interim Health Committee (called the Griner Committee, after its chair) is created with the task of forming the Rochester Health Commission, whose original purpose and functions are to analyze and oversee the health care system and introduce programs to improve efficiencies (e.g., data analysis and reporting, joint purchasing).

- 1995 The Rochester Health Commission is incorporated as a not-for-profit corporation. Through a community-wide nominating process, a board of 15 commissioners is established with all stakeholders represented.
- 1996 RHC hires a chief executive officer to support its work and manage its operations. Funding is primarily provided by stakeholders—Blue Cross/Blue Shield, Preferred Care, hospitals, medical society, and the University of Rochester—with some additional funding from the state.
- 1997 RHC releases a white paper on quality as well as its first reports on HEDIS quality measures of provider performance.
- 1998 RHC begins work on community-wide clinical guidelines, initiated by providers (not insurers) that wanted to be held to a consistent performance standard for all care. A forum on community rating is held early in the year.
- 1999 Disagreements arise about the role of RHC, with withdrawal of some funding support. Provider groups lobby the state successfully and persuade it to withdraw its funding. Funding was converted to premium-based support at a rate of 0.06 percent of the health insurance premiums paid for employees of local businesses. The Health Care Forum is created.
- 2000 Forum educational sessions are held throughout the community. The Forum Leadership Group develops a set of 10 collaborative initiatives to be undertaken to improve the Rochester health care system. Groups designated to lead the initiatives begin work midyear.
- 2002 The 10 initiatives have grown to 12, and they begin to yield observable results. RHC formalizes its review of the initiatives, requesting each team to develop and use indicators to measure the initiative’s effects on outcomes. A strategic planning process for RHC is initiated. Debate continues about RHC’s role, and alternative funding mechanisms continue to be explored.

Important Changes Over Time

Leadership: RHC’s board of commissioners has evolved along with its focus and activities. The board was expanded specifically to allow more physicians to serve. Board leadership has strived to strategically select RHC interventions that enable it to “make a difference,” while maintaining a third-party facilitator role. The board does not want RHC to be viewed as a partisan advocate on local health care issues. An example was an RHC decision not to take a position regarding the closure of the Genesee Hospital, which was a controversial issue in the community. RHC received criticism for this noninvolvement, but the board concluded that taking a position would yield little in the way of health system improvements, while incurring the risk of substantial political costs for RHC.

Goals, Programs, and Process: Early in its development, controversy grew over the role of RHC, culminating in active debates and disagreements during 1999 as well as the withdrawal of financial support by many of the provider organizations. The challenges of a voluntary approach were experienced fully during this time, with many providers unhappy that reports were being published on their performance. With its future at risk, RHC emerged from the negotiations with its role and priorities modified. The Health Care Forum was created as a community-based

mechanism to (1) seek consensus among stakeholders on priorities for health system improvements and (2) undertake collaborative initiatives to address those priorities.

In more recent years, the market environment in which RHC functions has become increasingly hostile as disagreements have escalated between the dominant providers and insurer. Parties on both sides have been concerned about market power and potentially negative financial consequences. Business leaders have strived to intervene in these conflicts (sometimes with RHC involvement and other times not), meeting with mixed results. Even as these conflicts continued, however, a sense grew among various stakeholders that tangible progress needed to be made somewhere. Their sense of frustration and urgency appeared to contribute to the strong support given by many stakeholders to the Health Care Forum process of community dialogue and to the 12 initiatives that emerged from that process. Individuals from a broad range of interests and organizations have participated enthusiastically, contributing hours of work to one or more of the initiatives. At the same time, others have been critical of the initiatives because they do not address aggressively the most serious issues of system capacity, health care costs, and hospital financial viability.

Organizational Infrastructure: The creation of the Health Care Forum added a new committee structure for which RHC provided operational and technical support. This included the Forum Leadership Group as well as the task forces responsible for the 12 initiatives. Two entirely different financial provisions have been established for RHC thus far: first funding through a combination of contributions from providers and business participants and state grants, and then a premium-based approach at the initiative of the business leadership. Funding was established at 0.06 percent of health insurance premiums for those insured by BCBS. This mechanism was intended to be temporary, however, so RHC funding issues are not yet resolved.

Key Events Since June 2002

Beginning in the summer of 2002, RHC began the process of formalizing its strategic plan for the next five years, including defining its mission, vision, and strategies for addressing key areas of interest (e.g., quality, access, cost, health status, and the overall effectiveness of the organization). As a follow-up to the strategic planning process, in the fall of 2002, RHC began to develop a series of metrics by which the community could measure its progress toward the agreed upon goals in its key areas. Although selection of specific measures has been delayed until funding for the data effort is obtained, a group of stakeholder representatives assembled by the Rochester Business Association (RBA) has defined a set of health care “Dash Board Indicators” and has asked RHC to coordinate the collection of those data.

In accordance with the 2002–2003 Forum work plan, a consensus has been developed on several new priority areas, including a chronic disease initiative that addresses the high cost of chronic diseases and seeks to increase quality, coordination, and access to services while reducing costs. This work will be supported by a RWJ Foundation grant to RHC; Excellus, Inc.; and RIPA that will encourage physicians to use an automated reminder system to ensure adherence to community care guidelines for chronic conditions such as diabetes, asthma, depression, and coronary artery disease. Additional community-wide implementation teams are working on health care worker shortage issues and medication safety.

RHC is also spearheading the development of tools that will connect its guidelines with increased patient and physician access to health information; focusing on issues related to health care disparities; and developing a physician survey to assess reactions to guidelines.

Following the publication of the first Premium Report, the IMC called for a deeper understanding of the drivers behind the recent premium increases. RHC assembled a Data Gathering Group that identified six areas of opportunity for the community to raise quality and lower costs, including a consolidation of reference laboratory resources and a community approach to pharmaceutical policy. With respect to the latter, a group of pharmacists from across the community has developed a work plan that builds on and expands separate initiatives currently spearheaded by individual organizations with the goal of increasing the use of generic drugs and lower-cost therapeutic alternatives community wide.

Following the merger of the IMC and the Chamber of Commerce (forming the RBA), a former IMC leader, who now is a key staff person at RBA and an Excellus board member (and continues to serve as an RHC Commissioner), withdrew support for the RHC, suggesting that the RBA was a better organization to facilitate community collaboration on health care issues. In mid-2003, Excellus announced that it was discontinuing the premium-based funding that supported the RHC activities. Thus, the loss of support for the RHC by one key business leader shifted the power balance among stakeholders, giving Excellus the leverage to attempt its termination. A key issue that may have helped to stimulate these actions was information in a draft RHC premium report that showed insurance premiums were increasing faster than hospital costs. As of September 2003, all the Commissioners except those affiliated with Excellus had taken a strong position in support of continuing the RHC and finding alternative financial support. The business support appears to be re-establishing itself and seeking different leadership. RHC has sought emergency foundation funding to provide short-term support while working with business leaders and other insurers and health plans to establish stable funding to sustain its activities.

6. Pittsburgh Regional Healthcare Initiative— Emerging and Framing

Coalition Environment

In Southwestern Pennsylvania, health care is the largest sector of the economy, employing one in eight workers and accounting for more than \$7.2 billion in business. Currently, the Southwestern Pennsylvania health care market is dominated by two large health systems, UPMC Health System (with approximately 12 hospitals and 40 to 45 percent of the inpatient market) and West Penn Allegheny Health System (with 6 hospitals). Competition between these two systems is strong, especially in the Greater Pittsburgh area. In the outlying communities, a few independent hospitals are strong competitors. Highmark Blue Cross Blue Shield is the dominant insurer in Southwestern Pennsylvania, with 70 to 72 percent market share. Health America is the second largest insurer, followed by UPMC Health Plan and Aetna. Intense competition and public rivalry between Highmark and the UPMC Health System is a well-known trademark of the Pittsburgh health care market.

Coalition Formation

The stimulus for the creation of a regional health coalition in Pittsburgh was the publication of an economic development plan by the Allegheny Conference, an organization of top business and community leaders in the region, which was completely silent on the health care sector. The president of the Jewish Healthcare Foundation (JHF) convinced the Allegheny Conference to consider a health care initiative under the umbrella of the Working Together Consortium (WTC), a multipoint effort to coordinate regional development. The JHF staff had long been discouraged about the quality of health care in the region and were eager to develop a large-scale effort that would bring fundamental change to the health care delivery system. A high-level business leader agreed to provide leadership for this effort, bringing vision, experience, and commitment to achieving the initiative's goals of making a safer and more efficient health care system.

The timing was ripe because clinicians, too, were ready for a change. They had been frustrated by their increasing inability to spend the majority of their time doing what their education and training had prepared them to do. Inefficiencies in the system were requiring excessive attention be paid to nondirect patient care tasks. They also acknowledged that patient outcomes and safety were inadequate, and wanted to take ownership of outcomes and practice improvement.

In December 1997, a group of community leaders, including purchasers, providers (mostly hospital executives), a small number of physicians, and representatives from several local insurers and health plans met for the first time to discuss issues and plans for the health care initiative. A yearlong planning process (1998–1999) ensued under the umbrella of the WTC and with support from the Allegheny Conference. Three priority areas were determined: (1) buying health care value (capacity); (2) improving quality of care in specific clinical areas; and (3) improving patient safety.

In 1999, the WTC health care initiative became the Pittsburgh Regional Healthcare Initiative (PRHI). The PRHI Corporate Statement and Charter were signed by the region's major health care stakeholders (e.g., chief executive officers of large employer organizations, hospitals, and insurers/health plans), representing an important symbol of commitment to the essential components of a common system for regional collaboration.

Development of Goals and Strategy

The principles of the PRHI approach are based on two questions: (1) What does the patient (e.g., the organizing focus of the system) need? and (2) How do health systems, plans, and purchasers meet that need? The PRHI strategy includes a commitment to pursuing the theoretical limits of care perfection, through the elimination of medication errors and achieving ideal patient outcomes in five key clinical areas.

Within this framework, PRHI formulated goals for clinical quality, capacity reconfiguration, and patient safety. While preparing for the clinical initiatives, PRHI leadership began to work with hospitals on health care capacity issues, spurred by local concerns about rising health care costs and insurance premiums. The group identified several highly visible issues regarding excess capacity in the region: cardiac surgery centers, helicopters, and pediatric intensive care units. However, it soon became apparent that PHRI leaders erred in pursuing the capacity goal before working on the clinical care goals. When asked to reduce the scope of the identified services, providers felt threatened by the possible loss of competitive position and revenues, which led to defensive reactions and conflict. The hospitals made a counterargument that effective capacity decisions could be made only with a good understanding of the outcomes being achieved by the programs of interest. Thus, the region's health care stakeholders needed to come together collaboratively around quality issues that were clinically relevant to providers and that could be measured objectively with data.

PRHI strived to develop a "precompetition" environment where providers could feel safe working together on quality improvements and where employers would agree to be patient on the realization of results and commit to a shared learning process. They chose quality and safety as the moral ground of shared human values on which everyone in the system could be engaged. PRHI leaders and staff identified three entry points for change: (1) achieving the goal of perfect patient outcomes in five clinical areas: maternal and infant health, orthopedic surgery, advanced cardiac care, depression, and diabetes; (2) improving the patient safety goal of eliminating medication errors and nosocomial (i.e., hospital acquired) infections; and (3) providing support for quality improvement in the delivery system through working groups and registries and by adapting to health care one of the most successful business improvement models in the world: the Toyota Production System (TPS) and its Pittsburgh derivative, the Alcoa Business System.

Implementation of Initiatives

Multidisciplinary committees of diverse stakeholders assume direct responsibility for designing and implementing key components of PRHI's initiatives. Physician leadership and engagement have been particularly essential and are intended to balance specialty medical interests and hospital affiliations with nonspecialty issues and concerns (e.g., co-chairs of committees are selected from competing health systems). Key business, labor, and civic leaders also participate

as members of leadership committees and working groups, but they play more of a supportive and endorsement, rather than a hands-on, role.

A Leadership Obligation Group (LOG) meets on a quarterly basis and serves as an important platform for discussion and communication among all key stakeholders (health care providers, business, insurers/health plans), keeping attention focused on the goals and issues of the Initiative at the highest levels of community leadership. By naming two chief executive officers of competing local banks to co-chair the LOG (each of whom is on the board of one of the two largest health systems) PRHI sent a strong signal to the community that the Initiative is about collaboration and cooperation, not competition.

Key PRHI programs and initiatives are described below.

Clinical Initiatives: An underlying objective of PRHI's clinical initiatives is to create a climate where physicians can share information and learn from each other about how to improve clinical care processes, and to engage purchasers in these efforts, as appropriate. A Clinical Advisory Committee (CAC) was established to provide an agenda and timetable for work to be done across the five targeted clinical areas, with co-chairs from each of the major health care systems (e.g., UPMC and West Penn Allegheny). The CAC meets on a monthly basis, but most of the activities are performed by working groups of physicians with expertise in each of the five targeted clinical areas.

Overall, the clinical initiatives have stimulated working relationships among physicians within and across systems. One unique asset that contributed to these initiatives was the availability of the Pennsylvania Health Care Cost Containment Council (PHC4) data, which gave participants access to a rich data source without being dependent on providers to supply the data.

Working with the PHC4, a state public reporting organization, PRHI analyzes public health care data to determine key areas for region-wide clinical performance improvement. To date, five regional reports have been commissioned by PRHI from PHC4. Follow-up process improvement activities have proceeded most significantly in the areas of advanced cardiac care (e.g., development of region-wide cardiac registries) and diabetes and depression (e.g., use of physician performance measurement sets and tools region-wide to improve outpatient treatment of these diseases).

Participating physicians have sought to learn from other organizations working in the same areas. As work proceeded on the clinical initiatives, a group of physicians visited Intermountain Health Care, the Institute for Clinical Systems Integration, the Maine Medical Assessment Foundation, and the Northern New England Cardiovascular Disease Study Group. The models used by these organizations have had an ongoing influence on the PRHI improvement designs.

Patient Safety Program: The PRHI patient safety program, authorized by the Leadership Obligation Group in early 1999, began in 2000 (approximately six months after the clinical initiatives were started). This initiative seeks to engage health care workers at the leadership and operational levels in process improvements that cut across specific clinical areas. The PHRI Patient Safety Executive Committee identified and agreed to implement two region-wide reporting systems: (1) the Centers for Disease Control and Prevention's (CDC's) National Nosocomial Infection Surveillance system (NNIS) and (2) U.S. Pharmacopeia's Medmarx for tracking medication errors and their causes. Drawing on data provided voluntarily by hospital partners to these systems, PRHI develops and sends quarterly infection and medication error

reports to each participating hospital, including data specific to that facility, as well as regional and national aggregate data. This information sharing is then used to develop process improvements region-wide, and increasingly in real time. A Nosocomial Infections Advisory Committee, a Medication Administration Advisory Committee, and five regional working groups meet on a monthly basis to perform the work of the Patient Safety Executive Committee.

Toyota Production System: PRHI's principal lever for achieving cultural transformation in health care is the Toyota Production System (TPS) process improvement model. The TPS redesign methodology begins with the recognition of systems problems and offers a scientific method for decentralized problem solving with everyone learning in the course of work (e.g., the signature TPS "learning line"). Individual problems are solved to root cause, within 24 hours, using real-time information. TPS is a values-based approach, so it requires fundamental changes in the way people think and how organizations operate. It can be applied to both behavior and processes. With the goal of improved outcomes, TPS focuses on the process and needs of the patient by building relationships based on trust. Increased efficiency and better quality are the natural byproducts of the system. PRHI offers TPS training to participating hospitals upon evidence of their complete support of TPS principles and methodology. To date, PRHI has successfully implemented a small number of learning lines in various hospital units across the region.

Organizational Structure and Support

PRHI functioned as a program within the Jewish Healthcare Foundation until January 2003 and thus had no independent board. At the beginning of its initiative, however, PRHI established a Leadership Obligation Group. The LOG serves as the mechanism through which local business and health care leaders shape the direction of PRHI initiatives.

PRHI staff work as a team to carry out the Initiative's programs as established by its committees. The staff members are widely recognized as credible and strongly committed. At the time of our interviews, the small, but growing staff included an executive director, medical advisor, associate director of clinical initiatives, director of patient safety, director of communications, a lead TPS instructor, and several field managers and other staff assistants.

PRHI's governance and operations are based on inclusiveness, trust, collaboration, and mutual support, while at the same time attempting to maintain both private- and public-sector accountability for the Initiative's objectives. PRHI members include 40 hospitals in 12 counties in Southwestern Pennsylvania; hundreds of physicians, individually and through their organizations; four major insurers covering 85 percent of the commercial market; 32 major and small business health care purchasers representing more than 200,000 local employees; organized labor; and dozens of civic leaders, including the Attorney General of Pennsylvania. Media are also considered to be a collaborator, and the three local papers are regularly informed of the Initiative's progress and are invited to PRHI meetings. Additional public outreach efforts include a PRHI website, monthly PRHI Executive Summary newsletters, and periodic news flashes to hospital chief executive officers.

Funding for PRHI comes from local and national contributions to support staff salaries and other core operating costs, as well as grants (mainly federal) for specific project initiatives. The PRHI annual operating budget is approximately \$2.5 million, including primarily staff salaries, rent, and overhead costs. Total awarded funding to date (2000 through 2004) is approximately \$7.5 million. Principal national supporters include the Agency for Healthcare Research and Quality,

the Robert Wood Johnson Foundation, the Center for Medicare Services, and the CDC. Principal regional supporters include the Jewish Healthcare Foundation and a consortium of local foundations, health plans, and employers.

Major Milestones

Major milestones for PRHI thus far have been identified as the following:

- 1997 Working Together Consortium of Allegheny Conference agrees to focus on health care as part of its regional development plan; first planning meeting held in December.
- 1998 Planning year to build regional collaboration, set vision and goals, and decide on initial activity scope, including clinical quality and capacity. Initial efforts addressing excess capacity fail; coalition sets this goal aside to first pursue its clinical quality goals.
- 1999 PRHI Corporate Statement and PRHI Charter signed by regional stakeholders. The PRHI Leadership Obligation Group meets for the first time. Clinical Initiatives get under way, with first reports published. PRHI clinical leaders perform site visits to examine “best of class” in nation’s health care improvement efforts.
- 2000 Patient Safety Initiative begins with identification of Medmarx (for medication errors) and NNIS (for nosocomial infections) reporting systems. Thirty regional hospitals agree to use NNIS for reporting nosocomial infections. Slow rollout of Medmarx begins in March. First TPS universities convened in June, July, and September.
- 2001 Data collection on infections begins in April. Learning lines initiated across several hospital units.
- 2002 Patient safety work accelerates with support from AHRQ and the CDC; clinical initiatives also are invigorated through support of American Medical Association [AMA] and the Centers for Medicare and Medicaid Services [CMS]; shared cardiac registry created.

Important Changes Over Time

Leadership: In 2000, PRHI lost an important leader when its very committed and visionary business leader left for a federal appointment. His commitment to PRHI continued, however, as witnessed by his 2001 visit to Pittsburgh with a small contingent of key U.S. senators, which helped increase the visibility of the PRHI at the national level.

Although business leadership was a very visible component in the early formative years of the PRHI, recently business participation has become less prominent in day-to-day operations and decisionmaking. The PRHI initiatives are being driven by hospitals, physicians, nurses, and pharmacists in the local medical community, with oversight and low profile participation of business representatives on the initiative committees. Meetings of the LOG also have become less frequent. At the time of this study in 2002, the business leaders still have expectations that these efforts are to yield improvements in the health care system, but it is not clear what role business may play in the future. It remains to be seen how business leaders will act on these expectations to insist on accountability by the health care community.

Membership: Since its inception, PRHI has professed to be a “region-wide” coalition. Efforts to expand beyond the Greater Pittsburgh area to include health care organizations across all 12

counties of Southwestern Pennsylvania led to an increase from the original 30 hospital partners to 40 partners and a resulting increase in the membership of the LOG.

Goals, Programs, and Processes: While PRHI's ultimate goal of "leading the world in patient outcomes" has remained constant over time, the strategies for achieving this goal have shifted in response to the willingness of stakeholders to take requisite action. Goals were established early in its work to address health care quality and capacity. Initial efforts to address the regional proliferation of cardiac surgery centers and emergency helicopters failed, due to lack of consensus among key providers and purchasers. Learning from this experience, PHRI placed its emphasis on the quality goal by making the patient the most important of all competing interests in health care. PRHI partners work together across institutional boundaries to improve clinical care quality and patient safety. Increasing emphasis is being placed on using TPS as a model for achieving perfect patient care.

Organizational Infrastructure: Initially supported in large part by core funding from the JHF and the RWJF, the bulk of PRHI's current support now comes from several large federal grants. The recent substantial influx of federal grant support has enabled PRHI to significantly increase the number of its full-time staff. However, with the grant support being time-limited, PRHI faces the need to establish sustainable funding streams for the future.

Key Events Since June 2002

PRHI functioned as a program within the Jewish Healthcare Foundation (JHF) until January 2003, when it became an independent, non-profit organization (Internal Revenue Code 501[c][3]) with a 10-member board of directors. It now is a supporting organization of the JHF, whereby the JHF appoints the PRHI board of directors. The board includes the president of the JHF (as chair), the executive director of PRHI (as president), and local business and health care leaders (two of whom serve as secretary and treasurer).

The PRHI staff has grown to include 16 full-time employees who work as a team to carry out the work of the Initiative's committees. Staff positions include executive director, medical advisor, director of strategy and execution, director of operations and business development, director of communications, TPS learning line instructor, director of clinical initiatives, clinical analyst, four regional learning/working group and data registries field managers, three real-time data use team members, and a CDC fellow.

Programmatically, PRHI has placed an increased focus on encouraging and supporting the deployment of leadership-driven "real time" error reporting as an essential step in organizational transformation. They view real-time error reporting as a natural bridge from conventional improvement approaches to the implementation of TPS principles. In particular, PRHI staff members have been working to secure centralized support for decentralized problem solving and the attainment of zero-error goals.

Other key events since 2002 include Pittsburgh business leaders beginning to track PRHI progress more closely through the LOG and the return of Paul O'Neill, PRHI's primary business leader, subsequent to his serving a U.S. federal government appointment. Business leaders are now applying pressure for accelerated improvement by asking for written goal statements from each hospital leader, and Mr. O'Neill has reengaged with PRHI and renewed his commitment to continuing its work.

7. Synthesis and Model Development

In this chapter, we synthesize the information drawn from our four case studies described above with the literature on the organization of systems to develop a conceptual model for the formation and operation of regional health quality improvement coalitions. We first present a summary of the organizational characteristics of the four coalitions for ready reference by the reader. Next we delineate key factors that appear to be essential for the formation and longer-term progress of regional health quality improvement coalitions. Then we present a brief review of the literature on theories of open systems as a foundation for the development of our conceptual model. Finally, we describe our conceptual model of regional health quality improvement coalitions, which we conceptualize as complex adaptive systems.

Summary of Comparisons Across Coalitions

The four regional health quality improvement coalitions included in this study are located in regions with moderate-sized populations that share a number of demographic and socioeconomic characteristics (refer to Table 1). They also have health care systems with similar characteristics. For example, consolidated health systems and strong university-based medical centers are common at each site. Additionally, the residential and business communities of each region share a concern for their communities and the well being of community residents. This concern contributed to the formation of each regional health quality coalition.

However, the cultures of each region's residential and business communities differ substantially, and the characteristics of the regional health quality coalitions they established reflect those differences. The specific features of the four coalitions are summarized in Table 3, extracted from the coalition descriptions provided in Chapters 3 through 6. Again, we note that the information with which we are working is current as of mid-2002, and the coalitions have continued to progress since then.

Key Factors in Coalition Success

One of the goals of this study was to begin to identify which conditions or factors are important to the formation and longer-term progress of regional health quality improvement coalitions. Listed here are a number of factors that appear to be important for enabling the four coalitions to organize and progress toward their goals. Enablers often "play out" differently across the various coalitions. This provides additional insight into the nature and importance of each with respect to the successes or challenges of regional health coalitions.

Strong leadership has been a key factor for all the coalitions. The perseverance of one business leader and support by others enabled CHQC to be formed and operate, despite the reluctance of hospitals to participate. When that business leadership dissipated, the CHQC weakened and ultimately was discontinued. The success of ICSI also is widely attributed to visionary leadership, in this case by two individuals who guided and championed its formation and an executive director who has guided the coalition throughout its life. RHC's respected and representative board membership, together with strong leadership and support from the local business community, has enabled RHC to

effectively navigate a changing and contentious regional health care market. For PRHI, the role of charismatic leaders was instrumental in initiating and establishing the credibility of the coalition, as well as enabling the group to stay the course, while being sufficiently resilient in refocusing its objectives to meet stakeholders' concerns. Special characteristics of coalition leaders were emphasized as essential for success during our site visit inquiries. These characteristics included integrity, credibility, commitment, tenacity, objectivity, flexibility, and high self-esteem coupled with little personal ego.

- ***Broad-based community commitment*** is a second key enabler for regional health quality coalitions. During the first years of the CHQC, its quality reports were strongly supported by business and highly visible in the residential community. This support created pressure for the hospitals to participate, despite the risk of scoring poorly on the quality indicators. The risk was highest for the facilities with the strongest reputations, which could be harmed if they did not perform better than other area hospitals on indicators in the reports.

The continued involvement of ICSI members following the pullout of BHCAG underscored the value of ICSI membership to provider groups and their long-term commitment to improving the quality of health care in the region. The subsequent expansion of ICSI sponsorship helped to convince providers that plans were willing to collaborate in the name of quality improvement and sent a message to the larger community that this was truly a statewide collaboration.

In Rochester, the proactive support and involvement of the business community, as well as the concern and commitment of the residential community, have greatly facilitated the development of RHC. The use of public forums as a mechanism for getting all the facts and issues on the table for stakeholders to observe together, followed by the creation of collaborative improvement initiatives for participants at all organizational levels, have been particularly effective in engaging a wide range of community stakeholders.

- For PRHI, building strong relationships based on collaboration and trust has been essential for involving a wide range of stakeholders in the change process, as well as for co-opting potential obstructers. By bringing all interested parties to the table (e.g., hospitals, employers, physicians, insurers, business leaders), PRHI has been able to convince purchasers to be patient while providers work together to improve health care. The participation of the business community helps to keep providers focused on the ultimate need for accountability. The participation of a growing group of strong leaders from the medical community has brought reputation and credibility to the process.
- ***Availability of financial resources and incentives*** has a primary influence on a coalition's ability to achieve its purposes. In the coalitions under study, annual budgets range from \$385,000 to \$3.1 million. Startup and ongoing operational costs will vary depending on coalition goals and initiatives.

**Table 3:
Comparisons of the Four Regional Health Quality Improvement Coalitions**

	CHQC	ICSI	RHC	PRHI
Years in existence	1990–1999	1993–present	1995–present	1997–present
How established	Business leaders approached local hospitals for joint quality reporting	Response to RFP from purchaser coalition that set new requirements for contracts	Business group and leaders formed a coalition to respond to rising health insurance premiums	Community leaders used economic development plan to achieve a brand of quality for the region
Conditions driving establishment	Study that showed high cost of care in Cleveland; local businesses unhappy with premium costs	Increasing health care costs; no information on quality/value; vision of medical group integration	Increasing costs of health care; need to improve quality of care; disparities in care for minorities and the poor	Recognition of the importance of health care for the economic development of the region and the need to improve quality and safety in health care
Board composition	Representatives from business, local hospital association, medical society (15 members)	Member provider groups, health plan sponsors, enrollees in sponsoring plans (17 members)	Business leaders, providers, consumers, and others (e.g., labor, insurers) (22 members)	Business and health care leaders (e.g., physicians, purchasers, hospitals, insurers) (10 members)
Major goals	Publish regular reports on hospital performance based on specific quality indicators; businesses direct purchasing to high performing hospitals	Improve health care in state through best practices and collaborative improvement work across all medical groups and hospitals	Enhance health of the Rochester area; increase access to health care; improve quality of health care; reduce health care costs for all	Achieve perfect patient care by identifying and solving problems at the point of care
Key activities	Develop method to calculate and risk adjust quality measures; collect data and survey; publish reports	Develop, implement clinical guidelines; develop technology assessment reports; action groups or collaboratives	12 major initiatives selected through community forums, quality reports, clinical guidelines, health benefit reports	Three major initiatives for improving patient safety, clinical outcomes, and real-time problem solving
Structure for carrying out goals/activities	Board committees designed the measures; each hospital provided data for measures; vendor conducted survey	Member-sponsor council chooses improvement foci; Action Groups develop topic-based implementation solutions; ICSI staff provide training and coaching to member provider groups	Participating organizations lead initiatives; oversight by Leadership Group; other activities by RHC	Committees are linked to activities; various regional partnerships formed
Staffing	Two full-time; contracts for some services	21 full-time	Two full-time; three part-time	16 full-time
Funding sources	Local businesses funded operating costs; hospitals paid data collection costs	Six Minnesota health plans	Percentage of local health insurance premiums (interim mechanism through early 2003)	Foundations, corporations, federal government research initiatives

Limited funding of the CHQC operations resulted in its having inadequate staff resources to support its activities. Further, the in-kind funding of data collection by participating hospitals made the CHQC vulnerable to hospitals' decisions regarding continuing participation. ICSI established appropriate and stable funding through the financial support of the original sponsoring health plan and the BHCAG (15 percent funding from 1993 to 1997), which allowed it to move forward steadily on the substance of its work with adequate staff support. This funding was expanded in 2001 with contributions made by the newly participating health plans.

RHC's ongoing struggle to establish a stable funding base was a symptom of basic disagreements among stakeholders regarding its role, as well as underlying conflicts among some providers and insurers. Since its inception, RHC has been funded sequentially by local hospitals, stakeholders, grants from New York State, and now through insurance premiums, each withdrawing funding along the way for one political reason or another. Serious threats to funding have diluted the capacity of RHC staff to support its goals, and tensions created by funding conflicts have diverted leaders' energy and attention away from the substance of its work.

The premium-based funding that most recently supports RHC was established as an interim measure through early 2003, but a viable longer-term alternative had not yet been identified as of the time of our site visit. RHC faces the challenge of developing enough political support to secure future funding while still maintaining a reputation for objectivity, independence, and fairness. This threat became reality in 2003 when Excellus terminated the premium-based funding, and although RHC leaders are pursuing alternative funding, the prospects for its financial survival are uncertain.

For PRHI, the financial support provided by the Jewish Healthcare Foundation as its founder, as well as by local businesses, other foundations, and government grants, was instrumental for rapidly building an operational infrastructure and subsequent early progress on the substantive work of the initiatives. Financial support from hospital members will not be forthcoming, however, until PRHI can make a business case for hospital investments in quality and safety. A recent influx of federal grant support enabled the organization to increase staff and enhance activities, but PRHI staff members are concerned about having to limit the agenda to programming that meets federal grant requirements. There is a need to establish sustainable funding streams to support PRHI work in the future.

- ***Adaptability and flexibility*** by the regional coalitions' leadership and staffs have contributed to the survival and viability of the three coalitions that continue to operate but were markedly absent in the case of CHQC. The CHQC did not modify its program to adapt to changing issues and priorities over time, even as business and community interest in its quality reports weakened. The failure to define a new direction appears to have been a key contributor to its discontinuation. With waning political pressure for quality reports, and no new quality or cost initiatives pending, hospitals could leave the coalition without incurring harmful political repercussions.

The three coalitions still in operation have a track record of adjusting to stakeholders' needs, diagnosing challenges during critical periods, and finding creative ways to resolve

them. ICSI allowed time and support for the maturation of its program, seeking feedback regularly from stakeholders and acting on that feedback to strengthen its flexible, yet ever-focused work. RHC reinvented itself at key points in time in response to concerns expressed by one or more of its stakeholder groups, showing a willingness to adapt to new approaches while remaining true to its community-based mission. PRHI de-emphasized its focus on issues of excess capacity, instead emphasizing its other initiatives focused on clinical quality and patient outcomes, which were meaningful to physicians. Several physicians were engaged as leaders of the PRHI initiatives.

- ***Dissemination of credible, objective, and actionable data-driven information*** has been essential to inform debates and guide decisions regarding which key areas to target for improvement. The entire CHQC quality report system was grounded in establishing data and methods for reporting consistent, comparative measures of hospital performance. RHC used data to prepare descriptive profiles of health care use and costs in the greater Rochester area and to assess contributions to increases in premium costs, which provided information for public forum discussions of issues. For PRHI, the availability of the public PHC4 data was the linchpin for the success of its clinical initiatives, and the establishment of region-wide reporting systems has fueled its patient safety program.

Unlike the other coalitions, ICSI itself did not undertake performance measurement, but rather purposefully left this important effort to a separate organization—first to the Minnesota Health Data Institute and now to the collective Minnesota health plans (through the Member-Sponsor Council). Still, dissemination of other types of information has been central to ICSI’s program. ICSI members developed evidence-based practice guidelines, and they measure and share with one another care process effects and quality improvement experiences.

- ***Physician leadership in initiative development*** for particular clinical issues was helpful for gaining broader buy-in for initiatives from the medical community. Although not present in CHQC, physician leadership is present in all three of the currently operating coalitions. ICSI’s practice guidelines were developed by member physicians, and guideline implementation initiatives are led by member group physicians, nurses, and administrators. Several of RHC’s initiatives and its community guideline activities are led by physicians or physician organizations. The PRHI clinical initiatives are completely driven by physicians.
- ***Establishing the motivation and active involvement of major providers*** often is difficult for voluntary coalitions because coalitions lack the formal authority needed to ensure participation. The CHQC overcame initial resistance on the part of area hospitals by threatening to proceed with developing quality reports using indicators measured with publicly available data, which could have misrepresented the hospitals’ actual quality performance. Even after the hospitals had participated for several years, they were quick to discontinue involvement when the business commitment to CHQC activities waned.

ICSI was, until recently, primarily sponsored by HealthPartners Health Plan. (The only other funding for ICSI came from BHCAG at 15 percent between 1993 and 1997.) HealthPartners made a concerted effort to ensure that the founding group members (e.g., Group Health, Park Nicollet, Mayo Clinic) truly acted jointly in establishing the platform for ICSI. The provider members’ secured majority representation on the ICSI board, and

their key role in the coalition's formation and development has brought along with it motivation and active involvement for making ICSI work.

In Rochester, conflict among the leaders of major health care systems and insurers has hindered collaborative approaches attempted by RHC, even as personnel from within those organizations participated in RHC initiatives. Progress has been stymied, particularly with respect to health care costs and the need to achieve greater efficiency in health care services. For PRHI, engaging the interest and involvement of hospital chief executive officers remains a challenge. Many continue to have strong reservations about sharing information across institutional boundaries, and they are skeptical that the coalition will last or will provide meaningful results. Depth of commitment from the general business community also has been uncertain.

- ***Achieving measurable outcomes of improvement*** appears to be a major challenge for regional health quality improvement coalitions. All three of the active coalitions operate under high expectations by stakeholders that they demonstrate achievements toward the intended improvements in health care quality and costs. At the same time, the coalitions' programs could falter if they work with incomplete or invalid data or they interpret the data inappropriately. Despite the reluctance of hospitals to participate in the CHQC quality reports, they worked together carefully to establish meaningful measures of quality, and the performance of hospitals improved over time for many of the indicators. Former CHQC participants (including hospital representatives) believe that the CHQC reports stimulated actions by the hospitals to achieve these improvements.

For ICSI, the continuation of the joint sponsorship by the newer sponsors beyond the first three-year contract will partly depend on being able to document improvements in diabetes outcomes (the first topic of choice by the Member-Sponsor Council) across its membership. Given the planned timeline for longitudinal diabetes outcome measurement, ICSI faces the challenge of collecting sufficient data to show improvement by the end of the contract in 2003. Additionally, the sponsors will consider other outcomes in their decision to renew ICSI sponsorship, including other care outcomes, public relations benefits, improved relations with contracted medical groups, and economies of scale for producing clinical guidelines and technology assessments.

Many RHC participants have noted that community judgments regarding the effectiveness of the coalition will be shaped by the extent to which its initiatives accomplish tangible results in 2002 and 2003. Accordingly, RHC has begun to develop performance indicators that will be used to monitor implementation progress of the 12 Forum initiatives

For PRHI and its constituencies, it soon will be necessary to produce publicly defensible data that show improvements in health care quality and patient outcomes (and related cost savings), if key stakeholders are to remain engaged in PRHI initiatives. Business leaders are expecting PRHI initiatives to show that improving health care quality in the community is possible and that it can also help to contain health care costs. A danger, however, is that this pressure to show results will cause PRHI staff and stakeholders to forget that it takes time to achieve lasting region-wide change, because the diffusion of new methods into the routine practices of clinicians is a gradual and cumulative process.

- ***Managing the various facets of growth and expansion*** is also a challenge for the three existing coalitions (CHQC did not pursue such expansion). ICSI's growth through expanded sponsorship has forced it to meet an increasing quantity and diversity of management demands, including how to continue offering services that are of value to older member medical groups while focusing on getting new member groups "up to speed" on growth curves already traveled by older members. To defend against the more experienced groups becoming restless and resentful of newer members, it will be crucial for ICSI to define appropriate services and benefits for the more established groups. In addition, these experienced members are involved in mentoring and training for the new members as part of their "ramping up" into the ICSI program.

For RHC, the involvement of an increasing diversity of stakeholder interests creates resource costs for managing the process and adds to the complexity of negotiations. At the same time, RHC continues to work to counter public perceptions that it is an agent of the business community rather than a convener of a broad range of stakeholders.

In contrast, the challenge for the PRHI initiatives is to achieve greater diffusion on several levels: gaining a greater regional presence by expanding and strengthening the participation of organizations outside Allegheny County; shifting some of its work to community hospitals and placing less of an emphasis on the two large health systems; better engaging the broader physician population in its efforts; and spreading the TPS culture of shared learning within and across organizations.

Conceptual Model of Regional Health Quality Improvement Coalitions

Many different models from a variety of natural, behavioral, and social science disciplines describe the nature of systems and their relationship with the environment. Systems theory is concerned with relationships, structure, and interdependence through space and time rather than the simple constant attributes of individual objects or entities (Katz and Kahn, 1978). In general, these models can be categorized as describing either closed or open systems.

Phenomena of the physical sciences lend themselves to closed systems, where self-contained structures can be treated independently of external forces. Living systems (such as social organizations), however, are dependent upon the external environment and thus are conceptualized as open systems.

Theories of Open Systems

Katz and Kahn (1978) describe characteristics that are common to all open systems: the exchange of energy and products between the system and its environment; the use of external information and feedback; continued existence and potential quantitative and qualitative growth and expansion; a tendency to move from generalized to specialized functions; the ability to reach the same final state from differing initial conditions and through a variety of pathways; the unification of system components through coordination of activities and integration of common norms and values.

Although the literature has often applied various forms of open systems theory to individual complex organizations, it less typically has applied the theory for understanding networks or coalitions of organizations. Using a socioecological approach, Trist (1983) conceptualized the

notion of interorganizational networks. He defined interorganizational networks as “functional social systems that occupy a position in social space between the society as a whole and the single organization” (Trist, 1983, p. 270). A limited literature on the development and continuation of community health alliances also exists. This literature utilizes an ecological perspective, which purports that such systems reach a steady state or equilibrium through adaptation to feedback from the environment. For example, Mays and colleagues (1998) developed a conceptual model of a community health alliance’s life cycle using an open system ecological perspective. The regional health quality improvement coalition is a specialized form of community health alliances. While the majority of community health alliances are informal collaborations of health departments with hospitals, health centers or managed care plans that focus on service delivery (Mays, Halverson, and Kaluzny, 1998), regional coalitions focus on community-wide improvements in health care quality, reductions in costs, or both.

The formation of interorganizational networks has been explained as a response to “meta problems” (Chevalier, 1966) or “messes” (Ackoff, 1974). Generally speaking, these are complex problems that defy precise definition, have no simple solutions, and are too extensive and many-sided to be tackled by any one single organization (Trist, 1983; Chisholm, 1996). The response must be multi-organizational and involve collaborative problem resolution. These “meta-problems” grow out of an increasingly complex, turbulent environment that can only be regulated through collaboration, as opposed to competition (Trist, 1983; Gray, 1985).

In our review of systems models in the literature, we focused upon those that provided a framework for understanding the ongoing behavior of systems of organizations. Given the complex and dynamic quality of interorganizational networks, we selected complexity theory as the model that best describes the evolutionary nature of regional coalitions for health care quality improvement and the relatively autonomous activity of its participants.

Complexity theory defines a hierarchical structure, referred to as a complex adaptive system, in which the system or coalition as a whole interacts with its environment; at the same time the system entities or individual participants interact with each other and the external environment (Eidelson, 1997). Complexity theory does not assume that complex adaptive systems strive for a stable state or that only one stable state exists for any individual entity within the system (Eidelson, 1997; Stacey, 1995). Complexity theory allows for relative autonomy in the functioning of the participants in a complex adaptive system (the coalition), and it accommodates their ongoing co-evolution without the constraint of a specified stable state. In particular, the flexibility of complexity theory allows each coalition participant to have its own goals and objectives that are separate from, and perhaps conflicting with, those of the coalition as a whole.

The hierarchical structure of a complex adaptive system, along with the relatively autonomous activity of its individual components, allows the system the flexibility to exchange information among its participants, adapt to a changing environment, reorganize and adjust to compensate for the discontinuation of involvement by any one or more of its participants, and balance between proven past activities and new behaviors that may be valuable or costly (Eidelson, 1997). The connectivity within the system can be a source of instability; research suggests a system with low numbers of links between its components may result in stable behavior, but that large numbers of links result in an unstable system (Stacey, 1995; Potts, 2000). In more complex systems, a seemingly minor event can start a chain reaction and the co-evolutionary nature of the system limits the linkages between cause and effect to short-term predictability (Stickland and Reveal,

1995; Eidelson, 1997). Hence, long-term outcomes in complex adaptive systems may not be linked clearly to specific events (Stacey, 1995).

The adaptation that occurs within this type of open system may result in either continuous or abrupt changes that alter the structure of the system. Large, abrupt changes occur when the value of a critical parameter reaches a point where a transformation takes place (Eidelson, 1997; Potts, 2000), causing the system to reorganize into a substantially different entity. For example, the rate of growth in health insurance premiums may decrease to a point that causes a regional coalition to restructure and shift its focus from the costs of health care to quality of particular health care measures.

Regional Health Quality Improvement Coalition as Complex Adaptive Systems

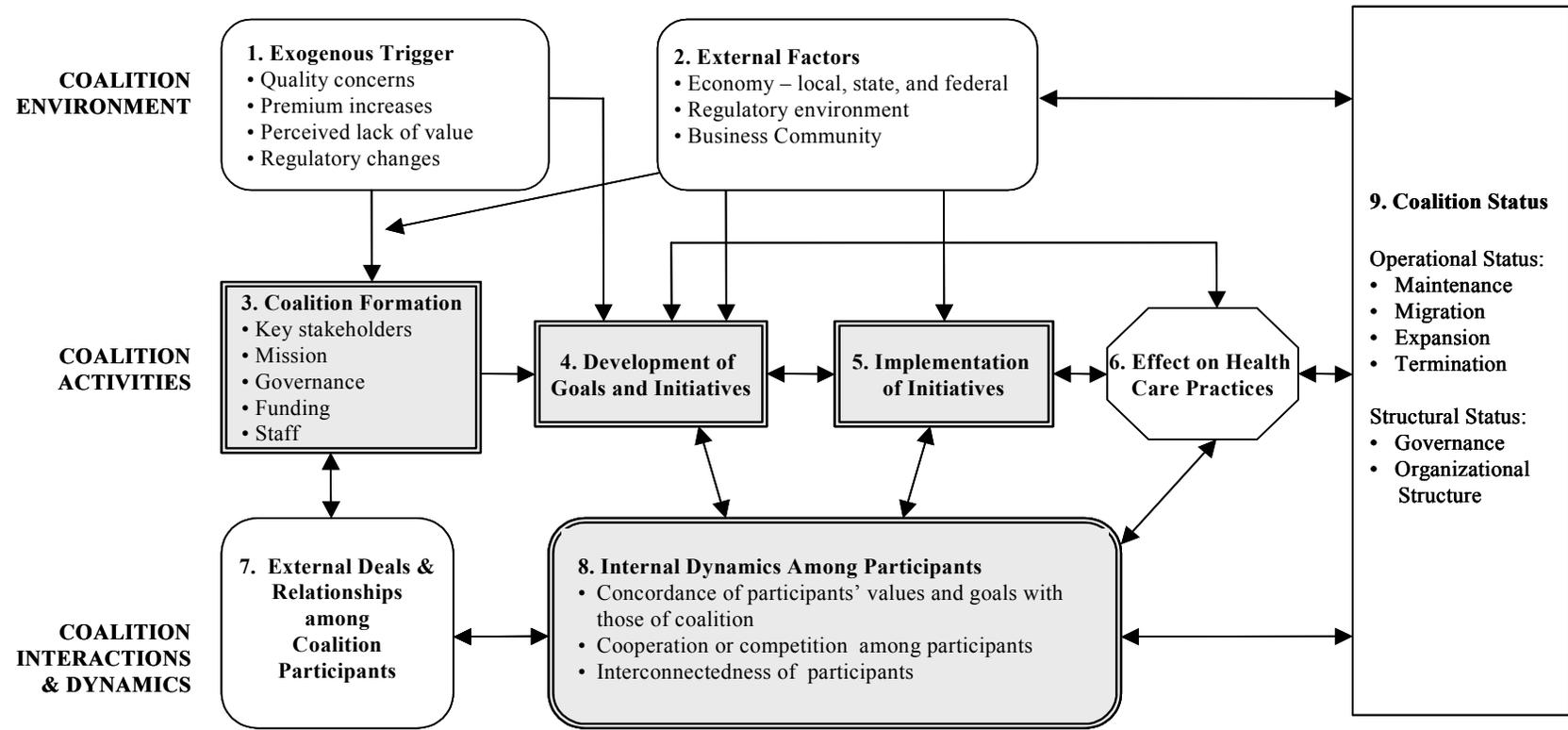
Figure 1 depicts our model of regional health quality improvement coalitions conceptualized as a complex adaptive system. The shaded portions of the model highlight the components belonging to the complex adaptive system. The rounded-edged rectangles portray the environment in which the regional coalition resides. The octagons represent the outcomes of the coalition's activities and resulting coalition status. External and environmental factors make up the first category of model components. The formation, operational activities of the regional coalition and its effects on health care practices comprise the second category of model components. These components typically follow a linear progression, with timing for each stage dependent upon the nature of the coalition environment, activities, and interactions and dynamics. Interactions among the stakeholders in the coalition, both within and external to the coalition framework, are represented in the third category of model components. The coalition's status is a cumulative result of the coalition environment, its activities, and its interactions and dynamics. The following discussion addresses each of the model categories and their respective components in turn.

Coalition Environment

The first category of model components represents the coalition's environment. It includes the exogenous trigger prompting the coalition's development (Box 1) and external factors related to the coalition's functioning (Box 2). Regional health quality improvement coalitions typically are created in response to an exogenous trigger in the local health care environment, which may be rapidly increasing health care costs, a concern about the quality of care being provided, a perception of a lack of value for insurance premiums, or regulatory changes. The goal of forming a regional coalition is to use a collaborative approach among diverse stakeholders to effect change in the local health care system that will improve its status relative to the issue(s) that triggered formation of the coalition.

External factors to the regional coalition, including the economy; the regulatory environment at the local, state and federal levels; and the regional business community, act upon the coalition at every point in its life cycle. These external factors will determine, in part, whether the coalition is ever created. For example, the magnitude of reactions by purchasers and community members to a substantial increase in health care premiums (a potential trigger) may depend on external factors like the local and national economy or a preexisting infrastructure and record of coordination across the business community. The costs of health care were an important driver in the formation of CHQC and ICSI in the early 1990s, while concern about health care's role in regional economic development was the driving factor in the formation of PRHI in 1997. In

MODEL COMPONENT CATEGORIES



Shaded items are components of the complex adaptive system.

Figure 1: Conceptual Model of Regional Health Quality Improvement Coalitions

addition, external factors may either facilitate or impede the success of the coalition in carrying out its initiatives and achieving its goals.

Coalition Activities

The second category of model components depicts coalition activities, including the formation of the coalition (Box 3), the development of its goals and strategy (Box 4), the implementation of coalition initiatives (Box 5), and the effect the coalition has on regional health care practices (Box 6). A wide variety of stakeholders potentially could be participants in such a coalition, depending on its goals and scope of activity. By definition, a regional health coalition must have the participation of at least one type of provider group (e.g., physicians, hospitals). Other stakeholder groups that may be participants include leaders of the local business community, consumers, health plans, insurers, governmental bodies, community service organizations, and other organizations unique to a region. The formation of a regional coalition may be initiated by health care providers that share a commitment to improving health care in the region, or it may be stimulated by a strong business community that strives to bring together hospitals, physicians, and other providers to address performance and cost issues of concern to the business leaders.

Existing relationships and interdependencies among various parties may also affect the initiation or nature of coalition formation. For instance, various provider groups and other natural competitors may agree to work together to secure business, on which they are dependent, from the business community. Likewise, time-consuming variations in insurance contract reporting requirements lead to resource drains on providers and less time for quality improvement efforts, valued by the insurers. The ability of a coalition to provide consolidated reporting requirements, as ICSI currently does, could motivate providers and insurers to support its formation.

As the coalition is organized, its mission, governance structure and membership, funding, and staffing are established. Funding sources will vary and may include grant support, contributions from coalition participants, or increases in health insurance premiums designated to support the coalition. Staff may be employees of the coalition's participants, or the coalition may be incorporated and have its own paid staff. The stakeholder groups participating in the regional coalition and the exogenous trigger leading to its creation will determine the coalition's goals and shape its initiatives.

Basic challenges that regional coalitions face are achieving demonstrable effects on health care practices and ensuring that coalition activities are continuously aligned with coalition and individual participant's goals. Coalitions are able to have an effect on health care practices if the information they provide (guidelines, technology assessments, report cards, etc.) is adopted by its participants. Efforts that enhance the adoption of information include persuading providers that the information is valuable, which may involve starting with opinion leaders or individuals who are able to influence other individuals' attitudes and behaviors (Rogers, 1995). The rate of adoption of new practices or technologies is affected by a number of attributes. These include the extent to which the new information is perceived as having a relative advantage over current practice, whether it is compatible with providers' beliefs, and whether it is not too complex to understand or implement on a trial basis (Rogers, 1995). In addition, the extent to which the new practice has an observable influence on patient outcomes increases adoption.

Collaborative efforts that are nonthreatening to the participants will enhance the coalition's efforts. Comparative reporting techniques that are punitive toward providers fall under what has

been termed the “theory of bad apples” of quality improvement, which places providers on the defensive, anxious to justify any deviations in their patterns of care (Berwick, 1989). The approach taken by CHQC with its goal of directing the business community toward better performing hospitals is an example. The defensive reaction can be ameliorated by approaching the process with a spirit of striving together to achieve better health care and a focus on the process or system rather than the providers (Berwick, 1989). This is the approach PRHI has taken, allowing its members to select the clinical and/or service areas to focus upon for intensive improvements for the year and by comparing members to themselves and not one another.

Coalition Interactions and Dynamics

The third category of model components, coalition interactions and dynamics, includes the internal dynamics among coalition participants (Box 8) and external deals and relationships among coalition participants (Box 7). At every point in its life cycle, the regional coalition is affected by the dynamics among its participants. These interactions will determine in part whether or not organizations choose to participate in the regional coalition. Coalition formation and the internal dynamics of the coalition are affected, in part, by the previous and current external activities of the coalition participants separate from the coalition activities, including external agreements and relationships.

Interactions among the stakeholders of a regional coalition will influence its progress in pursuing its intended programming and outcomes as well as its success in achieving a manageable rate of evolution. These interactions are at the heart of the complex adaptive system, driving its evolution as stakeholders negotiate priorities, roles, relationships, and power balances on a continuous basis. Factors affecting the extent and nature of stakeholder interactions include the level of concordance between the values and goals of each participating organization with those of the coalition as a whole; the level of interconnectedness among individual organizations participating in the coalition; and the degree of cooperation or competition among those participants.

According to complexity theory, very high rates of interaction generate multiple and rapid changes in the coalition or its activities that increase the risk of the coalition becoming unmanageable. Very low rates of interaction bring risk of stagnation due to inadequate stakeholder involvement and inertia. Outcomes at both extremes will lead a coalition to failure. Different interactions can occur among coalition participants both internally and externally to the coalition.

The organization and ongoing operation of regional health coalitions inherently involves conflict among participating stakeholders. Conflict is a natural and potentially beneficial component of regional coalitions as its participants with differing objectives and priorities are brought together to address a common goal. While the coalition needs to be able to manage the conflict, it wants to manage the conflict as a constructive process. Conflicting ideas on an issue force more careful examination of the various strategies to address it, resulting in a more carefully thought out approach than might have otherwise occurred. In addition, conflict can spark creativity, leading to alternative approaches that would never have been considered without the existence of the conflict (Worchel, Coutant-Sassic, and Wong, 1993).

Attempts to eliminate conflict may disenfranchise a subgroup of the coalition, which increases the likelihood of participants withdrawing from the coalition. Eliminating conflict also can result

in “groupthink,” which can damage group processes and productivity and is most likely to occur in a cohesive group with a strong leader. Groupthink may result in a stagnant organization that does not adapt to changes in its environment.

A regional coalition may face numerous potential sources of conflict as it defines and implements its goals and initiatives. The main potential sources of conflict include discord and competition among participating organizations, a lack of alignment between the regional coalition’s values and goals and those of the participating organizations, and disagreement over the best strategy to accomplish the goals of the regional coalition.

The benefits of conflict demonstrate the keen need for a coalition to have tools to facilitate understanding of the sources of conflict and consensus building—in particular, tools and skills for negotiation and bargaining (Worchel, Coutant-Sassic, and Wong, 1993; Fisher, Ury, and Patton, 1991). These tools include separating the people from the problem, focusing on interests rather than positions, inventing options for mutual gain, and using objective criteria in the evaluation of alternative strategies (Fisher, Ury, and Patton, 1991). Open communication and focusing on compatible interests and incentives is also critical to maintaining cooperation (Parker et al., 1998; Scott and Thurston, 1997; Mays, Halverson, and Kaluzny, 1998). In addition, focusing on ways to utilize the unique skills of the various participants in the coalition’s initiatives will ameliorate the potentially destructive nature of conflict (Worchel, Coutant-Sassic, and Wong, 1993).

Insights into the behavior of individual participants may be gained from game theory’s description of iterative games. If coalition participants are committed to the ideals of the coalition and its activities, they are likely to engage in cooperative games. If the participants have similar amounts of power in the community, they may engage in tit-for-tat behaviors, in which they mirror the behavior of the individual making the first move (Eidelson, 1997). Thus if the first overture is a cooperative one, other participants are likely to follow with cooperative behaviors. However, if the initial action on the part of a participant is a competitive behavior, this will be followed by competitive behavior from other participants. Conversely, if there is an imbalance of power among the participants in the coalition, other patterns of behavior may emerge, such as a parasitic relationship in which one participant is consistently cooperative and another participant consistently takes advantage of the cooperative party (Worchel, Coutant-Sassic, and Wong, 1993).

Coalition Status

The operational and structural status of a regional coalition (Box 9) at any given point in time will be the net result of its environment, activities, and interactions and dynamics. Successful implementation of initiatives increases the likelihood of achieving observable effects on health care practices and outcomes and facilitates momentum toward subsequent actions that should lead to development of “next generation” goals and initiatives. A coalition that has met with a great deal of success may expand its activities and alter its structure to fit new conditions, while a coalition that has failed to show an effect from its activities may cease to exist. For example, ICSI, a regional coalition that has successfully increased its membership, has broadened its activities beyond the initial focus of developing and implementing clinical guidelines to supporting implementation of quality improvement and the measurement of clinical outcomes. As sponsorship has expanded and membership grown, ICSI also has altered the makeup of its

governing board and its organizational structure to respond to consequent changes. In contrast, the activities of the now-defunct CHQC failed to motivate business to direct its purchasing power to the higher performing hospitals, one of its initial goals.

Having a positive effect on health care practices also has the potential of improving relationships among participants and influences the nature of their collaboration toward achieving common goals. Documented effects on practices and outcomes that are consistent with participant's goals will increase the likelihood that the coalition can secure future funding and commitments from its participants. The interaction of all these factors will determine the direction in which the coalition evolves over time, and that evolution will shift in response to the coalition's cumulative experience, external events, and changes in stakeholder goals and priorities.

If the regional coalition fails to expand and grow through complex adaptation, it will not be able to respond to the constantly changing health care environment around it. For example, as the health care priorities of a community change, a nonadaptive regional coalition will not be able to shift its focus to the new priorities. As a result, participating organizations may feel the regional coalition is not having an adequate effect on costs or quality of care and may disband the regional coalition, as happened in Cleveland. The CHQC fell into a "competency trap," becoming highly skilled at a specific activity (e.g., generating and distributing report cards on hospital performance) that addressed an old health care priority and being reluctant to develop new skills and activities to address new health care priorities. Similarly, if a regional coalition cannot maintain sufficient commitment of its participants to the coalition's goals and activities, it will encounter greater internal conflict and risk moving into chaos and disbanding.

8. Conclusion

In this report, we have provided detailed descriptions of the organization and activities of four regional coalitions for the purpose of shedding light on these relatively new and little-studied entities. In addition, we have developed a conceptual model of regional health quality improvement coalitions that may serve as a useful framework for the generation of hypotheses regarding the factors that contribute to the evolution, successes, challenges, and outcomes of these coalitions.

In this concluding chapter, we present a set of general observations followed by testable hypotheses organized by the categories of the conceptual model (Figure 1) discussed in Chapter 7. These hypotheses can be tested in further study of these coalitions or examination of other coalitions elsewhere. However, given the small number of locations covered by this study, it may not be possible to generalize all of our findings to other locations with different community or health care characteristics, an issue that is considered at the end of the chapter.

General Observations

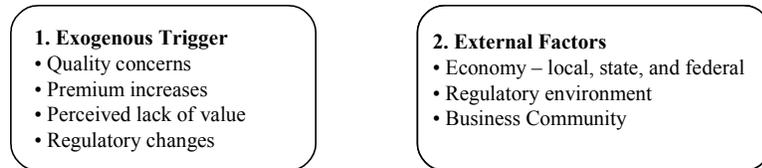
Although only four coalitions are examined in this study, they represent four different stages in the life cycle of an organizational effort, and they yield rich information from which a number of general observations can be made.

- The role, structure, and membership of coalition governance will reflect the coalition's underlying philosophy and approach; choice of board and committee members from among stakeholder groups signifies the relative importance of various groups in the coalition.
- The size and source of financial support for coalition operations is a signal regarding the extent of commitment being made to the coalition as well as its independence.
- The basic approach and strategy of a coalition is driven by the perspectives of its leaders and the stakeholder groups they represent, while also reflecting external factors such as market competition, local health care issues, or the state regulatory environment.
- A variety of methods may be effective for decisionmaking by a coalition, depending on the sensitivity of the issues being considered and who is participating in the negotiations.
- The presence of an adequately resourced and stable coalition management staff will help ensure that initiatives are carried out and the coalition remains on its defined course.
- A coalition may be representative of a broad range of participants, but providers and insurers will be affected most directly by its decisions and initiatives and therefore must be an integral part of the quality improvement work.
- Achievement of measurable quality improvements will be determined in part by how well clinical initiatives are disseminated from a coalition's active participants to the broader medical community.

Testable Hypotheses

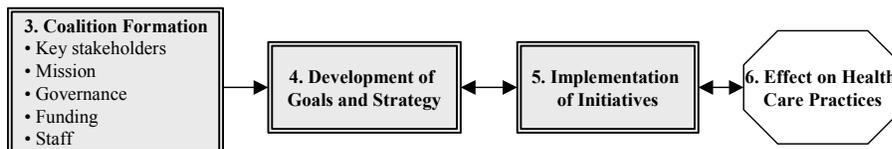
One of the goals of this study was to identify a set of hypotheses that could serve as a foundation for future research and an information base for potential new coalitions being initiated in the field. Based on the findings from our four case studies, and framed within the context of our conceptual model, we offer the following hypotheses regarding the formation and operation of regional health quality improvement coalitions.

Coalition Environment



- Some external catalyst, typically the business community, is needed to give a sense of urgency to coalition formation, but this stimulus does not necessarily have to continue once formation occurs. (Box 1)
- Coalitions supported by a preexisting collaborative infrastructure (from the business community, government agencies, etc.) will be formulated and accepted more quickly. (Box 2)

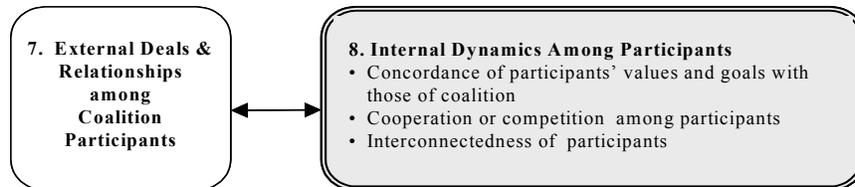
Coalition Activities



- One or two strong leaders with vision and charisma are needed to bring stakeholders to the table and then to keep them engaged and willing to risk participation during a coalition's uncertain formative years. (Box 3)
- Successful quality improvement collaborations require funding mechanisms that are sustainable for the long term but do not have an undue effect on coalition objectivity or independence. (Box 3)
- A coalition is likely to have substantial effects on health care in its region only when top-level representatives of the major health systems and insurers are genuinely supportive of the coalition and are participants in its decisionmaking. (Box 3/4)
- By carefully selecting initiatives that stakeholders agree are both important and feasible to implement, a coalition can achieve early successes that build its credibility, while gaining experience in successful collaborative efforts among the stakeholders. (Box 3/5)
- Coalitions cannot be capable of effective decisionmaking without the guidance of objective sources of (quantitative or qualitative) data. (Box 4)

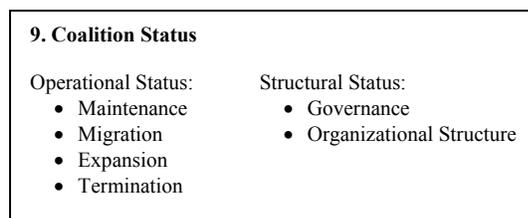
- Motivation for providers to proactively participate and internalize initiatives depends on their being a part of the coalition formation and development process, being treated as respected equal partners, and recognizing the benefits of participation. (Box 4/5)
- The leadership of clinicians and their commitment to the coalition’s interventions are key to achieving adoption of the interventions in the medical community. (Box 5)

Coalition Interactions and Dynamics



- A coalition in which there are a large number and diversity of external and internal interactions among individual stakeholders will have a greater risk of not being able to achieve its goals. (Box 7/8).
- The ability of coalition participants to reconcile the coalition’s collaborative activities with their individual competing roles in the market will enable them to work together effectively (e.g., collaborate on achieving improved clinical processes while competing on outcomes in service delivery). (Box 7/8)
- The early tone and working environment in which a coalition operates, including the style of its negotiations, persuasion, and relationship building, will affect its ability to progress; a sense of fairness, respect, objectivity, and safety in sharing confidential information is necessary for creating an environment of mutual trust. (Box 8)
- When a coalition is driven by groups external to health care, the motivation of coalition participants will evolve from initially defensive postures to being genuinely participative and internalized, if the coalition achieves collaborative successes and stakeholders see value in the coalition’s work. (Box 8)

Coalition Status



- An “evolutionary” coalition that effectively modifies its goals and strategies over time in response to changes in members’ priorities and the external environment, while adhering to its basic structure and program principles, will be more sustainable than a coalition with more static functions. (Box 9)

- Alignment of coalition vision, mission and activities with its stakeholders' clinical practices, financial incentives, or organizational values is necessary for coalition sustainability. (Box 9)
- A coalition will be sustainable if it continues to yield benefits for the most actively involved stakeholder groups. (Box 9)

Generalizability

While many of the lessons learned from this study may generalize to coalition efforts in other regions with similar characteristics, it is more difficult to speculate on generalizability to different types of regions.

The community culture of some of the regions in this study may limit the ability to generalize the experiences of their coalitions to other regions. For example, Minnesota is known for a low-key culture of cooperation, often referred to as “Minnesota nice,” in which it is relatively easy for providers to work together collaboratively. Similarly, the Rochester area has a strong sense of community “ownership” in its health care system, with concomitant desire for active involvement by consumers in a coalition’s activities, which might not be the case elsewhere.

Community size also may be a factor in generalizing beyond the four regions in this study. All four regions consist of moderate-sized cities and surrounding rural areas, with total populations of 1 to 3 million each. A number of stakeholders reported that the smaller community size contributes to a high level of trust and collaboration among participating stakeholders, because people in the town know each other, trust each other, take pride in their local work, and hold each other accountable for getting things done. This dynamic may be difficult to reproduce in a large city.

The competitiveness and other characteristics of the local health care market will have important effects on the strategies used by coalitions to engage providers and their successes in achieving changes in practices. In general, the health care markets in the four regions in this study had consolidated during the 1990s, with the result that a few large health systems held most of the market share for service delivery in each region, at least one of which was an academic health center with a teaching hospital providing tertiary care services. Similarly, the insurance sector in each market had consolidated to the point where several of the markets had two to three dominant insurers or health plans. While such consolidations contributed to conflicts and tensions associated with market positioning, they also enabled coalitions to readily identify the stakeholders that should be participating in their work.

Next Steps

The rich information generated through this study of four regional health quality improvement coalitions highlights the diversity of the goals and programmatic approaches undertaken by these coalitions. At the same time, it underscores a number of features, methods, and issues that are common to most or all of them. These commonalities are of particular interest, given that the overall goal of this study is to gain an understanding of which factors contribute to the successes or failures of regional coalitions and to assess implications for similar coalitions in other locations.

The hypotheses generated from this study merit further examination, both for the three coalitions described herein that are continuing to evolve and for other coalitions operating in other

locations. Hypotheses regarding the longer-term sustainability of the coalitions can be tested by tracking their evolution over time, testing our hypotheses against subsequent activity changes and outcomes, and refining our understanding of the life cycle of these organizations.

It also will be important to examine the extent to which new clinical practices or other interventions generated by a coalition actually diffuse into general practice in the region's health care systems. One of the issues identified in all three of the operating regional coalitions is that substantial time and effort are required to disseminate new actions or practices that are generated as part of coalition activities to individual clinicians working on the "front lines" of health care.

To further examine hypotheses regarding the formation of regional health quality improvement coalitions, it will be necessary to replicate the information collection we performed in this study to other regional coalitions. Through such an approach, it will be possible to test how well the lessons learned from this study generalize to other locations, where they differ, and which operating and/or environmental factors may contribute to those differences.

Meanwhile, the information presented in this report should be of use for organizations that are considering launching a regional health quality improvement coalition. The coalitions in this study are among the current leaders in the country, and others can "go to school" on their stories and experiences, just as each of them did by studying their own predecessors and each other.

Appendix A: Discussion Topics for Site Visits and Telephone Interviews

1. BACKGROUND

Who they are in their organization (general role, role in relation to coalition)
Who they are in the coalition (relationship to the coalition)

2. IMPETUS FOR THE COALITION

Who stimulated it
Who else was involved
The underlying issues needing attention at the time
Sources of pressure for change

3. HISTORY OF THE COALITION DEVELOPMENT

When your organization became involved in coalition activities
When coalition development started
What the initial goals were, and how they have changed over time
The story of the initial startup activities
Important or controversial issues that arose
How these issues were resolved
First activities undertaken and reasons for these choices
Other major activities undertaken over time

4. SUCCESSES AND CHALLENGES

What were the most important successes
What challenges affected progress
How those challenges were addressed
What is the current status of these issues
What factors contributed to successes or failures

5. IMPLICATIONS FOR YOUR ORGANIZATION

How the organization has been participating (past and currently)
How it has changed the way you do business (changes institutionalized or not)
What your organization has gained from participation (payoff)
What cost there has been to your organization (resources or time)
Has it been worth it
What would make it more useful for your organization

6. IMPLICATIONS FOR THE COMMUNITY AND HEALTH SERVICES

How the new program was introduced to the consumer or health care communities
How information is disseminated during activities (audiences and methods)
How the consumer or health care communities are responding to the coalition activities
Resulting changes in the way health care is delivered or financed

7. CHANGES NEEDED TO IMPROVE THE OPERATION

Goals and priorities

Structure and processes

Financing

8. WHAT DIRECTION THE COALITION SHOULD BE GOING

Which health policy goals are most important

Which of these should be addressed first (greatest return for the effort)

Types of programs

Types of organizations participating

9. LESSONS FOR OTHER COMMUNITIES

If you were asked to advise another community or region about to undertake a regional effort for quality improvement, what would you tell them? What lessons have you learned that could benefit them?

Appendix B: Schedules of Site Visits and Telephone Interviews

Cleveland Health Quality Choice

Telephone Interviews

December 5, 2001	Mitchell Balk, President, Mt. Sinai Health Care Foundation
December 11, 2001	Patrick Casey, Executive Director, Cleveland Health Action Council
January 4, 2002	Joan Mazzolini, Reporter for <i>The Plain Dealer</i>
January 10, 2002	David Baker, Case Western University
January 11, 2002	Victor Gelb, Vice Chair of CHQC
January 28, 2002	Dwain Harper, CEO of CHQC
April 18, 2002	Carl Sirio, M.D.
April 24, 2002	Sam Houston, former President of St. Luke's Hospital, Cleveland
May 7, 2002	Buz Buzogany, Wyse Landau Public Relations
May 15, 2002	Dale Shaller, formerly of the Center for Policy Studies

Institute for Clinical Systems Improvement

Wednesday, March 13, 2002

- 8:00 Jane Gendron, Manager, Collaboratives and Patient-Centered Improvement, ICSI
- 9:30 Nancy Jaeckels, Manager, Education, ICSI
- 11:00 Gary Oftedahl, M.D., Medical Director, ICSI
- 1:00 Brian Rank, M.D., Medical Director, HealthPartners Medical Group, ICSI Board Chair
- 4:15 William Gold, M.D., Chief Medical Officer, Vice President Health Management, Blue Cross Blue Shield of Minnesota, ICSI Board Member

Thursday, March 14, 2002

- 8:00 George Isham, M.D., Medical Director, Chief Health Officer, HealthPartners Health Plan, ICSI Board Member

George Halvorsen, Chairman and CEO, HealthPartners, Inc.
- 11:00 Robert Nesse, M.D., Vice Chair, Board of Governors, Mayo Clinic, ICSI Board Member
- 12:30 John Sakowski, Chief Operating Officer, ICIS
- 2:00 Gordon Mosser, Executive Director, ICSI, ICSI Board Member

Friday, March 15, 2002

- 9:00 Tom Luchi, M.D., CEO, Family HealthServices Minnesota
- 11:00 Milo Brekke, Ph.D., Consultant, Brekke and Associates
- 12:45 Ted Loftness, M.D., Vice President and Medical Director for Care Management, Medica; ICSI Board Member
- 4:00 Patrick Courneya, M.D., Medical Director, North Suburban Family Physicians

Tuesday, June 4, 2002

- 12:00 George Isham, M.D., Medical Director, Chief Health Officer, HealthPartners Health Plan, ICSI Board Member
- 1:30 ICSI Fifth Annual Forum

A Review of 2002: John Sakowski, Chief Operating Officer, ICIS

Overview of Member and Sponsor Council: Dawn Blomgren, M.D., Member and Sponsor Council Chair, Northwest Family Physicians

Panel Discussion from New Phase I Members of ICSI

Technology Assessment on Hospitalist Systems: Nancy Greer, Ph.D., ICSI; Russell Holman, M.D., HealthPartners Medical Group

Sleep Apnea Guideline and Patient Focus Group: Jenell Meyer, ICSI Guideline Facilitator

Success Stories: Safety for Patients on Bloodthinners: Dawn Ulvenes, RN, CPHQ, Quality Manager, Fairview Red Wing Medical Center

Innovative Ideas in the Management of Depression in Primary Care: Dennis Clark, Mayo Clinic

Management of Acute Myocardial Infarction: Jackson Thatcher, M.D., FACC, Director CCU and Acute Myocardial Infarction Care Improvement Initiative, Park Nicollet Heart and Vascular Center, Methodist Hospital

ICSI: Looking Forward: Gordon Mosser, M.D., Executive Director, ICSI, ICSI Board Member

Telephone Interviews

March 6, 2002 Jim Miller, Administrator, River Falls Medical Clinic

April 3, 2002 David Abelson, Medical Director, Vice President Strategic Improvement, Park Nicollet Health Services, ICSI Board Vice-Chair

Rochester Health Commission

Monday, February 4, 2002

- 8:30 Industrial Management Council (IMC) representatives
Sandy Parker, President of IMC; Forum Leadership Group Member
Robert Volpe, Director, Public Affairs, IMC; Lead Contact for Forum Initiative to Remove Barriers to Reducing Excess Capacity; Forum Facilitator (on loan from the IMC to RHC)
- 9:45 Orientation with RHC Staff
Al Charbonneau, President
Jim Garnham, Director of Quality Assessment
Mary Jane Milano, Director of Forum Initiatives
Sharon Palmiter, Project Manager
Jan Howe, Administrative Assistant
- 11:45 Mary Eileen (Mel) Callan, RN, NP; RHC Board Member—Provider Representative; Chief of Staff, Office of Senator Richard Dollinger; Family Nurse Practitioner
- 1:30 Mark Cronin, Manager of Provider Relations, Rochester Individual Practice Assoc. (RIPA); Lead Contact on Forum Initiative to Increase Efficiency
- 2:30 Howard Beckman, M.D., Medical Director, RIPA; Member of Forum Initiative to Develop Community-Wide Clinical Guidelines
Thomas Mahoney, M.D., President, RIPA, Practicing Physician, Forum Leadership Group Member
- 4:00 Kevin Hill, President and Chief Operating Officer, BlueCross BlueShield of Rochester Area; RHC Board Member—At-Large; Lead Contact for Forum Initiative on Controlling Capacity Growth; Forum Leadership Group Member
- 5:00 Patricia Bomba, M.D., Medical Director of Geriatrics, Excellus; RHC Board Member—Provider Representative; Lead Contact for Forum Initiative to Increase Quality of End-of-Life/Palliative Care

Tuesday, February 5, 2002

- 9:00 Kevin Crerand, Assistant County Executive, RHC Board Member—At-Large
- 10:30 Douglas Brush, CEO and Chairman, Sentry Corporation; Chairman of the Board, IMC; RHC Board Member—Business Representative; Forum Leadership Group Member
- 1:20 Sarah (Sally) Trafton, J.D.; Associate Chair for Education and Director, Master of Public Health Program, Community & Preventive Medicine, University of Rochester; Forum Leadership Group Chair
- 2:30 University of Rochester Medical Center Leadership
Jay Stein, M.D., Senior Vice President & Vice Provost for Health Affairs,

- Peter Robinson, Vice President and Chief Operating Officer; Vice President, Strategic Planning/Marketing and Operations, Strong Health; RHC Board Member—At-Large; Forum Leadership Group Member
- 3:30 Robert Panzer, M.D.; Chief Quality Officer, Strong Memorial Hospital; Lead Contact for Forum Initiative to Reduce Medical Errors & Improve Patient Safety
- 4:30 Edgar Black, M.D.; Vice President and Chief Medical Officer, BlueCross BlueShield of the Rochester Area; Lead Contact for Forum Initiative Supporting Leapfrog
- 5:30 Leapfrog Advisory Committee Meeting

Wednesday, February 6, 2002

- 8:00 End-of-Life/Palliative Care Meeting, Work Group on Exploring and Communicating Patient Wishes
- 10:00 Thomas Richards, Chairman of the Board and President/CEO, Rochester Gas and Electric Corporation; RHC Board Member—Business Representative; Forum Leadership Group Member
- 11:30 Bryan Hetherington, Esquire, Chief Counsel, Public Law Office of Rochester; RHC Board Secretary—Consumer Representative; Forum Leadership Group Member
- 12:50 Howard Berman, President, Excellus
- 2:30 Ronald Knight, Executive Vice President and President, Business and Consulting Services, Harris Interactive, Inc.; RHC Board Treasurer—Business Representative
- 3:45 Wrap-up with RHC Staff

Telephone Interviews

- December 20, 2001 Al Charbonneau, President, Rochester Health Commission
- April 1, 2002 John Urban, Director of Provider Services, Preferred Care
- April 2, 2002 Bonnie DeVinney, Executive Director
Finger Lakes Health Systems Agency (HSA)
- April 4, 2002 Alexander Strasser, M.D., Private practice physician
- April 6, 2002 Elisabeth Hager, M.D., Psychiatrist
President, Monroe County Medical Society
- April 6, 2002 Tim McCormick, CEO, Unity Health System
- April 8, 2002 R. Carlos Carballada, Chair, RHC Board of Directors

Pittsburgh Regional Healthcare Initiative

Monday, April 15, 2002

3:00 Karen Wolk Feinstein, President, Jewish Healthcare Foundation, PRHI Chair

Tuesday, April 16, 2002

11:30 West Penn Allegheny Health System

Dan Sacco, Vice President,

Marlene Garone, Vice President, Operations, West Penn Hospital

1:30 Mark Laskow, CEO Greycourt and Company, Inc.

2:30 Martin McGuinn, Chairman and CEO, Mellon Financial Corporation, Co-Chair, PRHI Leadership Obligation Group

Wednesday, April 17, 2002

1:00 Meeting with PRHI Staff

Jon Lloyd, General Surgeon, PRHI Medical Advisor, Co-Chair of PRHI Clinical Improvement

Ed Harrison, PRHI Director, Patient Safety

Geoff Webster, PRHI Associate Director, Clinical Initiatives

Naida Grunden, PRHI Director, Communications

Vickie Pisowicz, PRHI Director, Center for Shared Learning

Thursday, April 18, 2002

8:00 Latrobe Area Hospital

Douglas A. Clark, Executive Director,

Thomas Gessner, Medical Director, Latrobe Area Hospital

9:30 Carl Sirio, Associate Professor of Anesthesiology, Critical Care Medicine, and Medicine, University of Pittsburgh School of Medicine

11:00 Cliff Shannon, President, SMC Business Councils

12:00 Pittsburgh Foundation—Gerri Kay, Vice President; Annette Green, Program Officer

1:00 Marc Volavka, Executive Director, Pennsylvania Health Care Cost Containment Council

2:00 Charles M. O'Brien, President and CEO, West Allegheny Health System

3:00 University of Pittsburgh Medical Center Health System

Loren Roth, Vice Chancellor

Gail Wolf, Vice President of Nursing

6:00 Grant Planning Meeting, UPMC Presbyterian Hospital

Friday, April 19, 2002

- 9:00 James Rohr, CEO, PNC Financial Services Group
10:30 Rick Shannon, Chief of Medicine, Allegheny General Hospital
1:45 Anthony Lombardi, CEO, Monongahela Valley Hospital
3:00 Tom Smitherman, Professor of Medicine, Medical Director, Cardiac Intensive Care
UPMC

Telephone Interviews

- April 11, 2002 Ken Segel, Senior Staff, Jewish Healthcare Foundation
Director, Pittsburgh Regional Health Initiative (PRHI)
April 22, 2002 Paul O'Neill, Secretary of the Treasury, former CEO of Alcoa
Former Co-chair, PRHI (Follow-up interview on May 3, 2002)
April 25, 2002 Marc Volavka, Executive Director
Pennsylvania Health Care Cost Containment Council
May 6, 2002 Scott Becker, Vice President, Provider Strategies
Highmark Blue Cross Blue Shield
May 9, 2002 Joanne Narduzzi, M.D., Executive Vice President of Medical Affairs,
Mercy Health; active on AHRQ patient safety program, medication errors
May 13, 2002 Rick Stafford, Executive Director, Allegheny Conference
May 20, 2002 Naida Grunden, Director of Communications, PRHI/JHF
May 20, 2002 Vicki Pisowicz, Director, Center for Shared Learning, PRHI
May 22, 2002 Jon Lloyd, M.D., General Surgeon
PRHI Medical Advisor and Co-Chair of PRHI Clinical Initiatives

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