



BTE Program Evaluation

BTE Program Evaluation Contents

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EXECUTIVE SUMMARY

Bridges to Excellence (BTE), a not-for-profit organization dedicated to creating significant advances in the quality of healthcare, undertook an evaluation of its initial three pay-for-performance programs focused on improving office practice information systems, diabetes patient care, and cardiac patient care. These three programs provide financial incentives to physicians, practices, and patients to improve healthcare quality, resulting in reductions in overall healthcare costs, as depicted in the following healthcare rewards-outcomes model:



In order to evaluate the impact of the Bridges to Excellence initiative and test the assumed causal model underlying the program, a series of Research Questions were developed and assessed in the four BTE pilot markets:

- RQ1: Do the BTE programs engage physicians?
- RQ2: Do the BTE programs engage patients?
- RQ3: What market factors were related to successful implementation of BTE?
- RQ4: Does participation in the BTE programs result in healthier patients and reduced healthcare costs?

Overall, physician participation increased over time, with more physicians demonstrating a high level of performance in program areas in the BTE markets than in non-BTE markets. Further, those physicians who participated in BTE had higher reward potential than did those physicians who did not participate.

More patients were impacted by BTE over time as a result of obtaining services from high performing physicians, either because more physicians obtained performance recognition or due to switching to high-performing physicians. In contrast, relatively few diabetic patients participated in the on-line self-care disease management program during its first year.

A number of critical factors were observed that affected the impact of BTE in its initial two years of implementation in the pilot markets: 1) markets had to overcome initial physician skepticism about the program, 2) many physicians had limited resources available to obtain performance recognition, and 3) differences in physician organization (e.g., large vs. small practices) impacted ability to participate.

In terms of healthcare costs, diabetic patients treated by physicians who have demonstrated high quality diabetes care have lower overall healthcare costs than do those patients treated by physicians who have not demonstrated high quality diabetes care.

I. INTRODUCTION

A. Background

In the late 1990's, a number of research investigations identified serious shortcomings in the quality of healthcare in the United States (Chassin, Galvin, & The National Roundtable on Health Care Quality, 1998; Jencks et al., 2000), including underuse and overuse of specific healthcare interventions, as well as the frequent occurrence of preventable treatment complications. Research documented that U.S. adults receive only about half of the recommended care for both acute and preventive treatment (McGlynn et al., 2003).

In 2001, the Institute of Medicine (IOM) published a seminal report entitled *Crossing the Quality Chasm*, which drew national attention to the serious quality issues facing the American healthcare system. To bridge the chasm, the IOM recommended six key attributes around which the healthcare system should be redesigned. The IOM stated that the system needs to be safer, timely, effective, efficient, equitable, and patient centered (STEEEP). To meet this challenge, the IOM recommended that purchasers and insurers begin by redesigning payments for care to encourage providers to make positive changes to their care processes, which then will result in improvements in care at all levels.

Bridges to Excellence (BTE) was formed in response to this challenge by a group of employers, physicians, and health plans, based on three primary beliefs about the healthcare system:

1. Reengineering care processes to reduce mistakes will require investments, for which purchasers should create incentives.
2. Significant reductions in defects (misuse, underuse, overuse) will reduce the waste and inefficiencies in the healthcare system today.
3. Increased accountability and quality improvements will be encouraged by the release of comparative provider performance data, delivered to consumers in a compelling way.

The IOM and others have observed that improving the quality of patient care fundamentally involves changing the behavior of individual physicians (Epstein, Lee, & Hamel, 2004). Research has generally supported the premise that monetary payments positively affect physician behavior (Hellinger, 1996; Robinson, 2001). In its 2001 report, the IOM recommended that financial incentives to physicians be aligned with the implementation of best practice care processes and patient outcomes. That is, payments for care should be redesigned to encourage providers to make positive changes to their care processes. Indeed, the IOM specifically noted that “[q]uality could be rewarded by using direct payment mechanisms”. Consistent with the IOM's recommendations, there has been an emergence of incentive-based physician quality improvement initiatives, typically referred to as pay-for-performance (P4P) programs. Bridges to Excellence is one such P4P initiative.

BTE embraced the P4P concept and developed its incentive and reward programs around the following guiding principles:

- Performance measures must be evidence-based, focus on quality care, and be important to providers.
- Meeting the performance measures indicates clear, demonstrable, better performance in effectiveness.
- Actuarial analyses support the expectation of reduced healthcare costs resulting from improved quality of care (better performance).

BTE developed three P4P programs based on these principles, and, in 2003, embarked on a three-year pilot project to test those programs in four initial markets (Cincinnati, Louisville, Boston, and Albany/Schenectady, NY). The three pilot programs are:

- Physician Office Link (POL), which enables physician office sites to qualify for bonuses based on their implementation of specific processes to reduce errors and increase quality. Physician practices can earn up to \$50 per year for each patient covered by a participating employer or plan. In addition, a report card for each physician office describes its performance on the program measures and is made available to the public.
- Diabetes Care Link (DCL), which enables physicians to achieve one-year or three-year recognition for high performance in diabetes care. Qualifying physicians receive up to \$80 for each diabetic patient covered by a participating employer and plan. In addition, the program offers a suite of products and tools to help diabetic patients get engaged in their care, achieve better outcomes, and identify local physicians who meet the high performance measures. The cost to employers is no more than \$175 per diabetic patient per year with savings of \$350 per patient per year.
- Cardiac Care Link (CCL), which enables physicians to achieve three-year recognition for high performance in cardiac care. Qualifying physicians are eligible to receive up to \$160 for each cardiac patient covered by a participating employer and plan. The cost to employers is no more than \$200 per cardiac patient per year with savings up to \$390 per patient per year.

To earn bonuses in any of the three BTE reward programs (POL, DCL, or CCL), eligible physicians must demonstrate that they provide high quality care in the applicable program area by obtaining performance recognition through performance assessment programs administered by the National Committee for Quality Assurance (NCQA). In particular, to obtain POL rewards, physician office practices must obtain performance recognition in NCQA’s Physician Practice Connections (PPC) program. To obtain DCL rewards, physicians must obtain performance recognition in NCQA’s Diabetes Physician Recognition Program (DPRP). And, to obtain CCL rewards, physicians must obtain performance recognition in NCQA’s Heart/Stroke Recognition Program (HSRP).

B. Primary Evaluation Objectives

The BTE initiative is built on a series of assumptions about the impact of incentives on both providers and patients. The assumptions, briefly stated, are that the provision of incentives will lead to the adoption of behaviors that will result in better health outcomes and ultimately in lower costs and lower utilization rates. For example, the provision of incentives to physicians will result in higher physician participation in the Diabetes Physician Recognition Program (DPRP) which will in turn result in better diabetes care, leading to better health outcomes, lower utilization rates, and lower costs. Similarly, the provision of incentives (CareRewards), information, and support to diabetic patients, is assumed to lead to higher levels of patient knowledge and skill in managing their diabetes, the use of higher performing physicians, which will then lead to better diabetic control and ultimately to lower utilization and lower costs. In short, the assumed healthcare rewards-outcomes causal chain examined in the program evaluation is the following:



The evaluation of BTE is designed to empirically examine this assumed causal chain. If incentives are in place, does the assumed chain of events occur? If the assumed intermediate and ultimate outcomes do occur, what factors affect the rate of their occurrence and at what levels do they occur? If the assumed intermediate and ultimate outcomes do not occur, the evaluation is designed to assess various possible reasons or barriers that would allow for future corrections in the program. For example, physician awareness of the BTE programs and their view of the value of participation (both the financial incentive and their perceived value of the program for improving care) will be examined. Assessing the links in the assumed causal chain will help us to understand what is working and what is not. Of course, we will also assess the degree to which program elements are implemented and in place as they were planned and the overall participation rates by both providers and patients.

In addition to assessing the links in the healthcare rewards-outcomes chain, we will also assess possible additive and multiplicative effects. For example, does the impact of going to a high-performing diabetes physician and patients' participating in the consumer diabetes care management program result in better health outcomes and greater cost saving than just participating in one of the elements? Are the effects simply additive or are they multiplicative? That is, does the combination of participating in both result in more than just the added gains from participation in either one of the two components alone?

A quasi-experimental design is used in the evaluation, relying on pre- and post-measurement and a non-equivalent comparison site. The design will allow for comparisons of outcomes (e.g., costs and utilization rates) prior to the implementation of the program and after the implementation. It will also allow the comparison of outcomes across sites, comparing changes in costs and utilization rates across intervention and control sites. Establishing a control site, which shares market characteristics with the pilot sites but lacks an organized P4P program, will help to assess the degree to which observed changes in outcomes are attributable to the intervention versus to larger secular trends.

C. Research Questions

In order to evaluate the impact of the Bridges to Excellence initiative and test the assumed causal model underlying the program, a series of Research Questions have been formulated to assess physician and consumer engagement in the BTE programs and whether participation results in improved care management and reduced healthcare costs.

Research Question 1	<p>Do the BTE programs engage physicians?</p> <p>A. Did physician/market awareness about the program increase over time?</p> <p>B. Did physician participation in BTE increase over time?</p> <p>C. What factors and barriers affected physician participation?</p> <p>D. Did physician healthcare behaviors change in the market over time?</p>
Research Question 2	<p>Do the BTE programs engage patients?</p> <p>A. Did the number/percent of patients seeing recognized physicians increase over time?</p> <p>B. Did patient participation in the consumer rewards program increase over time?</p>

Research Question 3	<p>What market factors were related to successful implementation of BTE?</p> <p>A. Are there any factors that affected program success differentially in the BTE pilot markets?</p> <p>B. What barriers were encountered in implementing the program?</p>
Research Question 4	<p>Does participation in the BTE programs result in healthier patients and reduced healthcare costs?</p> <p>A. Did patient healthcare behaviors and outcomes change in the market over time?</p> <p>B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?</p>

RQ1: Do the BTE programs engage physicians?

The first research question is designed to determine whether the incentives offered through the BTE programs motivate physicians to participate in the programs and improve their healthcare practices. In order to assess this, the following sub-questions will be tested.

- A. Did physician/market awareness about the program increase over time?**
- B. Did physician participation in BTE increase over time?**
- C. What factors and barriers affected physician participation?**
- D. Did physician healthcare behaviors change in the market over time?**

First, we will examine overall market awareness in the BTE pilot markets to determine if physicians' awareness of the existence of the BTE programs, specifically NCQA's performance recognition programs used by BTE to qualify physicians for rewards, increases over time. BTE's implementation involves various outreach efforts to physicians in the pilot markets, including press releases and targeted mailings to physicians. The effectiveness of these efforts in promoting the BTE programs will be assessed.

Second, we will assess whether more physicians participated in the BTE programs over the course of the three-year pilot. In order for major changes in the healthcare system to occur, it is necessary that more and more individual physicians and practices change their healthcare patterns. By participating in BTE, physicians demonstrate that they deliver high quality care and meet evidence-based clinical guidelines of care.

Third, we will identify what issues were raised by physicians during the implementation phase that prevented or impeded their willingness and/or ability to participate in the program. Factors that relate to initial perceptions/attitudes about the BTE program and its financial incentives as well as specific logistical implementation details will be examined.

Fourth, we will assess the extent to which physicians' care management practices changed during the course of the 3-year pilot. Market-wide physician behaviors will be examined, not just the care patterns of those who elected to participate in the BTE programs. It is possible that non-participating physicians also may modify their practice patterns over time as the general climate of care changes as more physicians participate in BTE and are recognized for delivery of high quality care.

RQ2: Do the BTE programs engage patients?

The second research question is designed to determine whether patients were more involved in the BTE programs over time, both through receiving care from higher quality care physicians and through their own self-care management behavior. Specifically, the following sub-questions will be tested.

A. Did the number/percent of patients seeing recognized physicians increase over time?

B. Did patient participation in the consumer rewards program increase over time?

First, we will determine whether more of the BTE participating employers' patients were treated by high-performing (recognized) physicians over the course of the BTE pilot. In order for large-scale changes to occur in the healthcare systems, increasing numbers of patients must be impacted by the improved physician care practices.

Second, we will track whether more patients participate in the BTE consumer rewards program over the course of the three-year pilot. This program directly utilizes incentives to motivate patients to improve their own self-care management practices.

RQ3: What market factors were related to successful implementation of BTE?

The third research question is exploratory in nature and intended to elicit insights into the key factors related to successful implementation of the BTE programs. Specifically, the following two sub-questions are addressed:

A. Are there any factors that affected program success differentially in the BTE pilot markets?

B. What barriers were encountered in implementing the program?

First, we will assess the factors that were related to successful program implementation and the relative impact that each factor had on success. We will gauge the extent to which various factors, including both market-specific and program-specific issues, were related to uptake of the BTE programs in each of the pilot markets.

Second, we will identify and document barriers that were encountered during the course of the pilot program implementation, including specific issues related to physician and patient engagement. Mid-course adjustments to correct identified deficiencies that were made during the 3-year pilot program will be described along with subsequent results.

RQ4: Does participation in the BTE programs result in healthier patients and reduced healthcare costs?

The fourth research question tests the final links in the assumed rewards-outcomes healthcare chain: whether improved healthcare practices lead to better patient outcomes and reduced healthcare costs. This long-range issue will be assessed via two specific sub-questions.

A. Did patient healthcare behaviors and outcomes change in the market over time?

B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?

First, we will assess the extent to which patients' care management practices and health outcomes changed during the course of the 3-year pilot. Market-wide patient behaviors will be

examined, as well as the self-care practices of patients participating in the BTE diabetes consumer reward program.

Second, we will test the final link in the model by examining actual healthcare costs for patients who were impacted by the BTE programs vs. those who were not. Specifically, we will identify medical costs for patients treated by physicians who demonstrated they provide high quality care, as identified through the BTE programs, vs. those physicians who did not demonstrate the higher standard of care.

II. METHODS

A. Pilot Markets

To test the assumed healthcare rewards-outcomes causal chain, Bridges to Excellence (BTE) engaged in an initial 3-year pilot project in four distinct geographic market areas:

- Cincinnati, Ohio
- Louisville, Kentucky
- Boston and the greater Massachusetts area
- Capital Region of New York (Albany/Schenectady area)

BTE elected to implement only one of the three BTE programs, Diabetes Care Link (DCL), in two of the markets (Cincinnati and Louisville) and to implement all three BTE programs in the other two markets (Boston and the NY Capital Region). This approach was intended to provide feedback regarding the relative success of a pay-for-performance program focused only on specific patient outcomes (e.g., diabetes) vs. a P4P program focused on the relationship between structural healthcare changes (i.e., office system practices) and patient outcomes.

The pilot market locations were selected because they included a critical mass of covered lives among the initial founding employers of the Bridges to Excellence coalition. Estimates indicated that these initial project participants' populations in the four target geographic locations have a fairly high prevalence of the two specific chronic conditions under study in the pilot program: diabetes and cardiovascular disease. Critical mass of covered lives is important because it affects the size of rewards for which physicians can qualify. Research indicates that, for any pay-for-performance program, reward size is a critical component to motivate physicians to undertake the effort (and possibly the cost) involved in the desired behavioral shift (Baker, 2004).

Beyond critical patient mass, each of the four pilot markets was selected because they exhibit variability on dimensions thought to be related to the potential success of the Bridges to Excellence initiative. For instance, the way in which physicians organize (e.g., at the group level) may be a variable that affects the relative success of a P4P program such as BTE. The diversity among the markets was anticipated to facilitate the collection of important lessons about the adaptability of a P4P program like BTE, and its ability to be adopted and disseminated broadly.

Cincinnati, Ohio (DCL program only)

The Cincinnati market has a mix of a few large provider groups that dominate certain segments of the delivery system, and a large number of individual practitioners. There is a mix of Hospital systems (the Alliance) and independent hospitals that, apart from Cincinnati Children's Hospital Medical Center (CCHMC), do not dominate any care niche. There is a well-established purchaser group that has launched a number of initiatives over the years, from health plan quality evaluation to care quality improvements. Here also, a few plans dominate the managed care market, with Humana ChoiceCare, Anthem Blue Cross Blue Shield, and United HealthCare holding a 61% share. Project participants do not dominate the market from a revenue share standpoint, but are recognized leaders.

Louisville, Kentucky (DCL program only)

The Louisville market is highly fragmented on the provider side, despite the presence of Jewish and Baptist Hospitals and world-renowned heart transplant and cardiac surgery units. There is no formal healthcare purchasing group, and although Louisville is the headquarters for Humana, the plan does not have a dominating position within its market with about a 35% share. As such, this market can be considered to have less provider consolidation compared to the other three

pilot markets. BTE project participants Ford, GE, and UPS are the largest private employers in Louisville, and Humana is one of the largest health plans.

Boston, Massachusetts (DCL, CCL [introduced in Pilot Year 2], and POL programs)

The Massachusetts healthcare market is strongly influenced by a few major healthcare systems (e.g., Partners Community Health Care, Lahey Clinic, etc.), which represent about 50% of the hospitals (including academic medical centers) and physicians in the state. Blue Cross Blue Shield of Massachusetts, Tufts Health Plans, Harvard Pilgrim Health Plans, and Fallon Health Plan represent 80% of all health plan enrollments in the state. The Group Insurance Commission and the Massachusetts Health Care Purchasing Group represent 25% of all the covered lives in the state. Despite this consolidation (and partially because of it), Boston has been recognized in a recent publication by the National Health Care Purchasing Institute (NHCPI, 2002) as one of the key markets recommended for a quality incentive program demonstration project. The advantage of the consolidation is that adoption and implementation of incentives and rewards tied to performance can be broader and swifter than in a highly fragmented market. Organizations participating in this project represent the leaders of the market on the purchaser, plan, and provider sides.

NY Capital Region (DCL, CCL, and POL programs)

The fourth pilot market region, the Albany/Schenectady area of eastern New York, also was selected because of its critical mass of covered lives among participating employers. This market is very well organized at the physician level, and is dominated by three large independent physician associations (IPAs), CapitalCare Medical Group, Community Care Physicians, and Prime Care Physicians. Additionally, this market area had already initiated several local and area-wide quality improvement initiatives.

B. Control Markets

In order to provide a basis of comparison for the adoption of better care practices, two geographic market areas were selected to serve as non-implementation controls for the BTE pilot initiative:

- Erie, Pennsylvania
- North/Central Indiana (Bloomington, Fort Wayne, Indianapolis)

Both markets were selected in part because of their similarity to the pilot test markets, in terms of the prevalence of the target chronic conditions (diabetes and cardiovascular disease). Additionally, both market areas include a significant population from one of the initial BTE project participants, GE.

Erie, Pennsylvania (control for the physician engagement component of BTE)

Erie was selected as a control market for the physician engagement component of the BTE project for two primary reasons. First, this market was similar in provider configuration to two of the key pilot markets: Cincinnati and Louisville. In particular, the Erie market is made up of a few large medical groups and many individual practitioners. The market is not dominated by major healthcare systems or IPAs. Second, Erie was identified as a market that has not and is not likely in the near future to implement major quality improvement (e.g., pay-for-performance) initiatives. As such, Erie seemed suitable to serve as a comparison market where physician healthcare behaviors would progress without external (quality improvement) intervention.

Indiana (control for the patient engagement component of BTE)

Three major urban areas in central and northern Indiana (Bloomington, Fort Wayne, Indianapolis) were selected as the control market for the patient engagement component of the BTE project for two primary reasons. First, one of the pilot market employers (GE) had a significant employee

population with similar healthcare coverage and work activities in Indiana as project participants' employee populations in the BTE pilot markets. GE's covered lives with diabetes or cardiovascular disease in the Indiana control market were specifically targeted to receive a survey regarding their healthcare behaviors and attitudes overall and with regard to their specific chronic condition (the market-wide patient survey is described in the Evaluation Methods section below). Second, similar to Erie, Indiana was identified as a market that has not and is not likely in the near future to implement major quality improvement (e.g., pay-for-performance) initiatives. As such, the urban Indiana area seemed suitable to serve as a comparison where patient healthcare behaviors would progress without external (physician quality improvement) intervention.

C. Participants

Three types of participants in the BTE programs can be identified: employers, eligible physicians, and eligible patients. Employers are the project participants who put forth the financial incentives for physicians to improve their care management practices and performance. Eligible physicians are the individual providers whose healthcare behavior is targeted by the BTE program. Eligible patients are BTE project participants' covered lives who are targeted for improved patient outcomes, both as a function of being treated by higher performing physicians and by their own improved self-care practices. A summary of these three types of BTE program participants is provided in the following table.

PARTICIPANTS					
Market	Pilot Year	Employers	BTE Program	Eligible Physicians	Eligible Patients
Cincinnati	Year 1	CCHMC City of Cincinnati Ford	DCL	892	4,985
	Year 2	Humana GE P&G UPS	DCL	1,097	5,405
Louisville	Year 1	Ford Humana	DCL	411	3,757
	Year 2	GE UPS	DCL	582	3,767
Boston	Year 1	GE Raytheon Verizon	DCL	2,355	3,664
			POL	11,729	86,297
	Year 2	AstraZeneca GE Raytheon Verizon IBM	CCL	703	1,616
			DCL	1,924	4,541
Capital Region (Albany/Schenectady, NY)	Year 1	GE Golub Hannaford Bros Verizon	CCL	271	961
			DCL	638	2,083
			POL	1,861	43,302
	Year 2		CCL	227	717
			DCL	607	2,216
		POL	1,656	44,829	

Employers (Project Participants)

At the launch of each of the four pilot BTE markets, a total of 10 employers were engaged as project participants. Subsequently, three additional employers joined the program: City of Cincinnati (Cincinnati, mid-Year 1), AstraZeneca (Boston, Year 2), IBM (Boston, mid-Year 2).

Eligible Physicians

Eligible physicians were those MD/DO physicians within the target geographic pilot market areas who have provided applicable healthcare services to one or more project participant covered life during a period of approximately 15 months. For the DCL program, only primary care physicians (PCPs) or endocrinologists who provided diabetes-related services were eligible to participate. For the CCL program, only primary care physicians (PCPs), cardiologists, or neurologists who provided cardiac-related services were eligible to participate. For the POL program, only primary care physicians (PCPs), endocrinologists, cardiologists, or neurologists who provided healthcare services in an office-based setting were eligible to participate.

Eligible Patients

Eligible patients were those current covered lives of the project participants within the target geographic area at the time when health plans extracted patient count information for the program year. Eligible patients for the DCL program were those covered lives with a diabetes claim during the preceding 15 months. Eligible patients for the CCL program were those covered lives with a cardiac claim during the preceding 15 months. Eligible patients for the POL program were all current project participant covered lives.

D. Evaluation Methods

Evaluation of the impact and effectiveness of the BTE initiative was based on multiple methodological approaches:

- Program participation metrics
- Market-wide surveys
- Reward surveys
- BTE project participant and vendor observations
- Cost analyses

Each of these methods was used to obtain data to directly address the Research Questions posed in the evaluation, as summarized in the following table:

RESEARCH QUESTION DATA SOURCES							
Research Question		Data Source					
		Program Participation Metrics (Appendix B)	Market-Wide Surveys (Physician) (Appendix C)	Market-Wide Surveys (Patient) (Appendix D)	Reward Surveys (Appendix E)	BTE Project Participant & Vendor Observations (Appendix F)	Cost Analyses (Appendix G)
I	A		X				
	B	X					
	C		X		X	X	
	D	X	X			X	
II	A	X		X			
	B	X					
III	A					X	
	B					X	
IV	A	X		X			
	B						X

1. Participation Metrics

During the course of the pilot program, BTE collected and reported various metrics related to physician and patient participation in the BTE programs, including number of new physicians who obtain performance recognition in each of the targeted BTE program areas and changes in the number of patients seeing physicians who obtained performance recognition. These metrics were reported to BTE leadership and to the BTE project participants regularly during the pilot implementation, and allowed close monitoring of program progress as well as the ability to identify lower than expected progress. An example of the type of participation metrics tracked and reported by BTE is provided in Appendix B.

Key participation metrics collected by BTE were used to address, in entirety or in part, several of the research questions posed in the evaluation of the initiative.

RQ1B. Did physician participation in BTE increase over time?

The number of physicians with performance recognition at the start of the BTE programs in each market was identified. Subsequently, the number of new physicians recognized each month after program launch was tracked in order to monitor the impact of the program's incentives on increasing the number of physicians who demonstrate high standards of healthcare behaviors through participation in the BTE programs.

RQ1C. What factors and barriers affected physician participation?

The relationship between physicians' BTE reward potential and their participation in the BTE program was assessed. Each physician's eligible BTE reward amount was identified at the start of the BTE program and updated annually. Specifically, physicians' eligible count of BTE participating employers' patients being treated was used as a measure of BTE reward potential, since physicians were rewarded by BTE a fixed dollar amount per employer patient treated.

In order to assess whether the potential size of the reward is related to physicians' participation in BTE, t-tests were conducted in each market and for each program to compare the difference in reward potential for NCQA-recognized vs. non-recognized physicians. Because reward potential is a direct function of the patient count attributed to each physician, patient count was used as the dependent measure in this analysis. For recognized physicians, their eligible patient count that was the basis of their initial reward at the time of recognition was used in the analysis. Physicians who had already obtained NCQA performance recognition prior to the launch of BTE in each market were excluded from this analysis, since these physicians were clearly unaffected by any potential BTE reward in their decision to obtain performance recognition. For non-recognized physicians, their current eligible patient count was used.

Due to limited physician recognitions to date for several of the programs in Boston (CCL) and the NY Capital Region (DCL and CCL), analyses were conducted only for the following programs and markets:

- Cincinnati DCL
- Louisville DCL
- Boston DCL
- Boston POL
- NY Capital Region POL

RQ1D. Did physician healthcare behaviors change in the market over time?

Data pertaining to the POL program was used in part to determine if physician office practices were changing their healthcare behaviors over the course of the 3-year pilot project. In particular, the POL program consists of three categories of office practice care that are related to improvements in patient health: clinical information systems, patient education and support, and care management systems. Within each of these three categories of care, three levels of implementation, termed modules, are available. For instance, within the clinical information systems category, the three modules are use of patient registries (level 1), electronic prescription and test ordering systems (level 2), and electronic medical records (level 3).

In order to obtain rewards through BTE, practices are only required to implement at least one level of practice improvement in each of the three care categories during the first pilot program year. In subsequent program years, rewards are reduced unless the practice continues to make process improvements by implementing additional improvements and meets the standards for additional levels within the three categories of care. By monitoring the number of levels within each care category that have been passed, we are able to assess if practice healthcare patterns are changing over time.

Additional data to address this research question was obtained from a market-wide physician survey as well as project participant and vendor observations.

RQ2A. Did the number/percent of patients seeing recognized physicians increase over time?

The number of eligible patients being treated by high performing physicians at the start of the BTE programs in each market was identified. Subsequently, the number of additional patients being treated by newly recognized physicians each month after program launch was tracked in order to monitor the impact of changes in physician healthcare behaviors on patients through their treatment by high performing physicians. Patients may be impacted either by their current physician changing healthcare behaviors and obtaining performance recognition or by patients themselves switching from non-recognized to recognized physicians. In both cases, more patients will be treated by the high performing physicians and should in the long-term achieve better healthcare outcomes.

Additional data to address this research question was obtained from a market-wide patient survey that asked patients about their familiarity with BTE and the physician performance recognition programs.

RQ2B. Did patient participation in the consumer rewards program increase over time?

BTE monitored the number of diabetic patients over time who participated in the DCL diabetes consumer rewards programs (Diabetes CareRewards). Through their participation in this program, patients become more directly involved in their own diabetic care through self-management practices guided by the web site.

RQ4A. Did patient healthcare behaviors and outcomes change in the market over time?

BTE monitored healthcare outcomes for diabetic patients through their self-reported data in the on-line Diabetes CareRewards program. In particular, patients were asked to provide their HbA1c levels. Changes in patients' levels were monitored over time, and compared among those patients who were seeing physicians recognized for their high performing diabetes care vs. non-recognized physicians.

Additional data to address this research question was obtained from a market-wide patient survey regarding patient healthcare behaviors.

2. Market-Wide Surveys

Two types of market-wide surveys were conducted in the four BTE pilot markets and in the BTE control markets: a physician survey and a patient survey. Both surveys were intended to assess healthcare behaviors and attitudes in the larger population of physicians and patients in the market, not just among those who were directly participating in the BTE programs. Both types of surveys were conducted at the initial launch of BTE in the pilot markets (baseline), and twice more during the course of BTE's implementation. This longitudinal approach to data collection was used in order to allow assessment of possible changes in the market behaviors/attitudes over time.

The same surveys were conducted in the BTE pilot markets (Erie for the physician survey and Indiana for the patient survey) over the same 3-year pilot period, in order to allow a comparison of physician and patient responses in the pilot markets to markets in which the BTE initiative is not present.

Physician Survey

The physician survey was designed to assess physicians' current healthcare behaviors, including use of both electronic office-based systems and patient care management systems, attitudes toward changing their behaviors/systems, and their awareness of and attitudes toward the NCQA performance recognition programs used in the Bridges to Excellence project. The physician survey instrument is included in Appendix C.

The sample of physicians who received the survey in each market were selected from a larger list of physicians provided by one or more health plans of the participating employers in each market. Only physicians with the same targeted specialties of interest in BTE (i.e., primary care physicians, endocrinologists, and cardiologists/neurologists) were selected for the survey. The sample of physicians was chosen at random from the pool of available physicians. With the limited number of certain specialists available (e.g., endocrinologists), all such specialists were typically included in the final sample, with the remaining survey recipients consisting of randomly sampled primary care physicians.

Surveys were distributed by mail in a single survey mailing. In most cases, the surveys were sent in the name of the BTE program. In some cases, one or more major healthcare system, medical

group, or IPA in the market agreed to distribute the surveys to their affiliated physicians under their system's or group's name, in an effort to increase the response rate. In one case, a large healthcare system had a sufficient number of physicians within their system to constitute the entire market sample, and this healthcare system agreed to distribute the survey with a small incentive (PCHI in Boston). The highest response rate (33.1%) was observed with this methodology. A summary of the physician surveys conducted as part of the BTE evaluation is provided in the following table:

PHYSICIAN SURVEYS						
Market	Program	Survey Type	Mail Date	Number Mailed	Features	Response Rate
Erie [Control Market]	DCL & POL	baseline	Sep-03	263	34 dist by a medical group; <i>BTE</i> letterhead; sample of Highmark Erie Physicians	10.3%
	DCL & POL & CCL	follow-up	Jan-06	601	<i>BTE</i> letterhead; sample of Highmark Erie Physicians	6.7%
Cincinnati/Louisville	DCL	baseline	Jun-03	1,000	<i>BTE</i> letterhead; participants - Humana PCPs and Endocrinologists	8.2%
	DCL & POL	follow-up	Jan-05	2,000	<i>BTE</i> letterhead; participants - PCPs and Diabetes Specialists	5.5%*
Boston	DCL & POL	baseline	Jan-04	1,195	\$2 Dunkin' Donuts; <i>PCHI</i> letters from CEO; participants - <i>PCHI</i> PCPs & Endocrinologists	33.1%
	DCL & POL & CCL	follow-up	Jun-05	1,150	\$2 Dunkin' Donuts; <i>PCHI</i> letters from CEO; participants - <i>PCHI</i> PCPs Carios, & Endocrinologists	30.1%
Capital Region (Albany/Schenectady, NY)	DCL & POL & CCL	baseline	Apr-04	1,140	<i>BTE</i> letterhead; participants -1,000 HP physicians and 140 dist. by 3 medical groups	13.5%
	DCL & POL & CCL	follow-up	Nov-05	1,350	<i>BTE</i> letterhead; participants -1,000 HP physicians and 350 dist. by 3 medical groups	6.4%

* Based on total number of surveys delivered rather than number of surveys mailed.

The market-wide physician survey was used by BTE to address, in entirety or in part, several of the research questions posed in the evaluation of the initiative.

RQ1A. Did physician/market awareness about the program increase over time?

The physician survey asked a question regarding physicians' awareness of the NCQA performance recognition programs, including a response option to indicate whether they have performance recognition. Responses to this question will be used to determine if physicians' awareness of the performance recognition programs has changed over the course of the 3-year BTE pilot.

RQ1C. What factors and barriers affected physician participation?

The physician survey included several items to assess physicians' attitudes towards NCQA performance recognition (e.g., whether recognition indicates high quality care), reasons why they would consider seeking recognition, motivations to seek recognition, and motivations to invest in changes in their office practice systems. Physicians' responses to these questions will be used to assess the factors that may affect their willingness to participate in BTE and what barriers might prohibit participation.

Additional data to address this research question was obtained from a reward survey of physicians who obtained BTE rewards and from observations noted by the BTE project participants and vendors during their implementation of the program.

RQ1D. Did physician healthcare behaviors change in the market over time?

The physician survey included questions directly related to physicians' healthcare behaviors, including methods and tests they employ in specific situations (e.g., methods to prevent drug interactions, frequency of performing diabetic tests), the existence of patient registries and

electronic systems in their practice, their use of patient referral programs, and the types of quality improvement programs they have in place.

Additional data to address this research question was obtained from specific physician recognition program participation metrics and from BTE project participant and vendor observations.

Patient Survey

The patient survey was designed to assess patients' current knowledge, attitudes, and behaviors regarding their condition (diabetes or cardiovascular disease), their level of involvement in their own healthcare, and their awareness and perceptions of BTE and the associated NCQA physician performance assessment programs. The patient survey instrument is included in Appendix D.

The sample of patients who received the diabetes or cardiac care survey in each market were selected based on lists of diabetic or cardiac patients generated by the project participants' health plans. In each market, one health plan agreed to have the patient survey mailed to BTE project participants' diabetic/cardiac patients who were covered by the health plan, and for the mailing to be sent under the health plan's name. Surveys were distributed by mail in a single survey mailing. A summary of the patient surveys conducted as part of the BTE evaluation is provided in the following table:

PATIENT SURVEYS						
Market	Program	Survey Type	Mail Date	Number Mailed	Features	Response Rate
Indiana [Control Market]	DCL	baseline	Oct-03	548	BCBS letterhead; participants - diabetes patients	36.7%
Cincinnati/Louisville	DCL	baseline	Apr-03	2,998	mailed by Humana; participants - Humana health plan members	25.3%
	DCL	follow-up	Mar-05	3,627	mailed by Humana; participants - Humana health plan members	19.1%
Boston	DCL	baseline	Mar-04	1,158	health plans' letterhead; participants - BCBS-AL & Tufts Health members	26.0%
Capital Region (Albany/Schenectady, NY)	DCL & CCL	baseline	Apr-04	1,671	CDPHP letterhead; participants - 1,214 diabetes patients and 457 cardiac care patients	30.0%

The market-wide patient survey was used by BTE to address, in entirety or in part, several of the research questions posed in the evaluation of the initiative.

RQ2A. Did the number/percent of patients seeing recognized physicians increase over time?

The patient survey asked patients whether they were aware of physician quality improvement programs in their community and whether they had heard of the NCQA diabetes or cardiovascular physician performance assessment program. The survey also asked patients how important they felt it was for their physician to be recognized by one of these programs. Although these items do not directly determine the number of patients seeing recognized physicians, responses to these questions will help determine the extent to which patients are aware of the program's existence and their likelihood of seeing physicians who meet the performance standards.

Additional data to address this research question was obtained from specific patient participation metrics (BTE participants seeing recognized physicians and/or participating in the consumer Diabetes CareRewards program).

RQ4A. Did patient healthcare behaviors and outcomes change in the market over time?

The patient survey asked patients a series of questions regarding their own knowledge, attitudes, and behaviors concerning the management of their condition. Patients' responses to these items will be used to determine whether their own self-care management practices are changing over time.

Additional data to address this research question was obtained from self-reported health status data of diabetic patients participating in the consumer Diabetes CareRewards program.

3. Reward Surveys

Concurrent with receipt of their BTE reward check, all BTE-rewarded physicians or practices also received a reward survey asking them a series of questions regarding their reasons for participating in BTE and their perceptions of various aspects of the NCQA performance assessment programs and the BTE rewards and communication processes. The reward survey instrument is included in Appendix E. A summary of the reward surveys obtained as part of the BTE evaluation is provided in the following table:

REWARD SURVEYS			
Market	Program	Number Mailed	Response Rate
Cincinnati	DCL	26	62%
Louisville	DCL	19	79%
Boston	DCL	23	78%
	POL	37	76%
	CCL		
Capital Region (Albany/Schenectady, NY)	DCL	3	67%
	POL	29	34%
	CCL		

A total of 51 reward surveys were returned from the DCL program and 38 reward surveys were returned from the POL program.

The reward survey was used by BTE in part to address one of the research questions posed in the evaluation of the initiative.

RQ1C. What factors and barriers affected physician participation?

The reward survey asked physician and practice BTE reward recipients to evaluate specific aspects of the BTE reward programs, including assessing the ease of completing the performance assessment process and clarity of BTE's communications regarding how to participate and obtain rewards. Reward recipients' responses to these questions will be used to determine some of the factors that promoted their participation in the program and barriers that they encountered during the participation process.

Additional data to address this research question was obtained from the market-wide physician survey and from BTE project participant and vendor observations.

4. BTE Project Participant & Vendor Observations

A survey was conducted of key participants involved in administering the BTE program and outreaching to physicians and practices. A total of 41 people were identified to complete the survey, including individuals working on behalf of BTE, BTE partners in program operations (e.g., Medstat and NCQA), project representatives from participating employers, and practice administrators and managers for large physician groups in the markets. Of the 41 targeted individuals, 22 completed the survey (54% response rate). The project participant and vendor observations survey instrument is included in Appendix F.

This survey was used by BTE to address, in entirety or in part, several of the research questions posed in the evaluation of the initiative.

RQ1C. What factors and barriers affected physician participation?

The participant survey asked about reasons physicians provided for deciding to participate in BTE. Additional data to address this research question was obtained from a reward survey of physicians who obtained BTE rewards and from the market-wide survey of physicians.

RQ1D. Did physician healthcare behaviors change in the market over time?

The participant survey asked about the types of changes that were adopted by physicians and practices to improve their office practice systems of patient care behaviors in order to meet the NCQA performance requirements.

Additional data to address this research question was obtained from specific physician recognition program participation metrics and from the market-wide survey of physicians.

RQ3A. Are there any factors that affected program success differentially in the BTE pilot markets?

The participant survey included a question regarding factors that positively impacted the success of the BTE program. Responses to this question are examined in light of any differences in program success noted in the different markets.

RQ3B. What barriers were encountered in implementing the program?

The participant survey asked about any barriers or obstacles encountered in implementing the BTE program, and any changes that were made to overcome these barriers.

5. Cost Analyses

In the Cincinnati and Louisville markets, a BTE participating health plan (United Healthcare and subsidiary Ingenix) conducted an analysis of healthcare costs as a function of diabetes provider recognition. This analysis was used to address the following research question:

RQ4B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?

To address this research question, Ingenix utilized UHC's physician database for the Cincinnati and Louisville market areas. Based upon a list of physicians, primary care physicians (PCPs) and endocrinologists, who were identified as eligible for BTE Diabetes Care Link rewards by BTE partner Thomson Medstat, Ingenix divided physicians into those eligible physicians who had obtained DPRP recognition and those eligible physicians who had not obtained DPRP recognition as of May 31, 2003. Due to the relatively small number of physicians who had obtained DPRP recognition at the time, the data from the Cincinnati and Louisville markets was combined in order to increase the sample size (power) of the analysis. Only those physicians with attributable

diabetes treatment episodes between October 1, 2002 and September 30, 2004 were included in the study.¹

Assessment of physician resource utilization was conducted using the Episode Treatment Group (ETG™) methodology.² Individual diabetes treatment episodes were attributed to physicians based on a specific set of ETG™ attribution guidelines (e.g., episodes were attributed to treating physicians whose professional claims represented a significant percentage of professional claims within an episode and whose professional claim costs accounted for at least 25% of total “eligible provider” claims in dollar terms).

All professional services were included in the analysis; hospital, facilities, laboratory and pharmacy costs were excluded. In order to isolate the costs between inpatient and outpatient services, separate analyses were conducted including both inpatient and outpatient services together vs. outpatient services only.

For this analysis, physician resource utilization was measured based on health care services’ “allowable charges” based on claims data. Standardized costs were calculated after removing the lowest and highest 5% of costs. Differences in costs between recognized and non-recognized physicians were compared separately for generalists (primary care physicians) and specialists (endocrinologists).

¹ An “episode” of care is defined as all clinically relevant services for a discrete diagnostic condition (e.g., diabetes) from the onset of symptoms until treatment is complete.

² The ETG™ method is a patented case-mix adjustment and episode-building system designed to provide a consistent and reliable tool to measure the provision and financing of healthcare services.

III. RESULTS

The following section provides the results obtained in the BTE pilot evaluation pertaining to each of the four primary research questions. Results are organized according to specific Research Question and sub-question below.

Research Question 1	<p>Do the BTE programs engage physicians?</p> <p>A. Did physician/market awareness about the program increase over time?</p> <p>B. Did physician participation in BTE increase over time?</p> <p>C. What factors and barriers affected physician participation?</p> <p>D. Did physician healthcare behaviors change in the market over time?</p>
Research Question 2	<p>Do the BTE programs engage patients?</p> <p>A. Did the number/percent of patients seeing recognized physicians increase over time?</p> <p>B. Did patient participation in the consumer rewards program increase over time?</p>
Research Question 3	<p>What market factors were related to successful implementation of BTE?</p> <p>A. Are there any factors that affected program success differentially in the BTE pilot markets?</p> <p>B. What barriers were encountered in implementing the program?</p>
Research Question 4	<p>Does participation in the BTE programs result in healthier patients and reduced healthcare costs?</p> <p>A. Did patient healthcare behaviors and outcomes change in the market over time?</p> <p>B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?</p>

A. RQ1: Do the BTE programs engage physicians?

RQ1A: Did physician/market awareness about the program increase over time?

This research question concerned whether overall physician awareness about the BTE program increased over time. This question was addressed through a market-wide physician survey administered to a sample of physicians in each pilot market and the control market immediately prior to BTE implementation and again following program implementation. The survey included a specific question pertaining to physicians' degree of familiarity with the NCQA performance assessment programs used by BTE for the DCL program (DPRP in all markets) and for the CCL program (HSRP in Boston and the Capital Region). Unlike the DPRP and HSRP programs which are national NCQA recognition programs available for all physicians who meet the standards, the PPC program was initially developed specifically for the BTE POL Program and was limited only to those physicians who were eligible for POL rewards. As a result, overall market physician familiarity with the PPC program was not assessed.

As seen in **Table 1**, physicians' overall familiarity with NCQA's DPRP and HSRP performance assessment programs was low in all markets, with fewer than 15% of surveyed physicians being either very familiar with these programs or having performance recognition. The least familiar physicians were those in the BTE control market (Erie). Based on the first follow-up survey,

physicians in the Cincinnati/Louisville markets as well as the Boston and the NY Capital Region markets showed an increased level of familiarity with the DPRP program.

TABLE 1: Physician Familiarity with NCQA's DPRP and/or HSRP Program			
Market	Not at All Familiar	Somewhat/Moderately Familiar	Very Familiar/Recognized
BASELINE			
Erie	78%	19%	4%
Cincinnati/Louisville	43%	34%	13%
Boston	56%	30%	9%
Capital Region	48%	32%	14%
FOLLOW-UP			
Erie	58%	33%	3%
Cincinnati/Louisville	35%	34%	20%
Boston	37%	43%	12%
Capital Region	24%	56%	19%

RQ1B: Did physician participation in BTE increase over time?

This research question focused on measuring whether more physicians in the BTE pilot markets participated in BTE over time by obtaining performance recognition in NCQA’s programs (PPC, DPRP, and HSRP). This question was addressed through specific BTE program participation metrics tracked over time, specifically, the number of physicians with NCQA performance recognition.

Table 2A provides the number of new physicians obtaining NCQA performance recognition each quarter, and **Table 2B** presents the cumulative count of physicians with NCQA performance recognition, by BTE reward program. Physician participation in the DPRP program increased by around 600% in both Cincinnati and Louisville in just under 2 years of program implementation. In just over 1 year of implementation in Boston, participation in the PPC program increased from 34 to 548 physicians and participation in the DPRP program increased from 66 to 234 physicians. In contrast, there was no change in physician participation in the DPRP or HSRP programs in the Erie control market (note that the PPC program was not available to physicians in Erie).

TABLE 2A: Physician Participation by Market & Program - Quarterly											
Market	Program	Q203	Q303	Q403	Q104	Q204	Q304	Q404	Q105	Q205	Q305
		#	#	#	#	#	#	#	#	#	#
Erie	DPRP	0	0	0	0	0	0	0	0	0	0
	HSRP	0	0	0	0	0	0	0	0	0	0
Cincinnati	DPRP	10	1	1	27	5	11	3	19	0	41
Louisville*	DPRP	5	2	1	0	1	3	-1	23	2	4
Boston	PPC				34	1	409	21	83	0	0
	DPRP				66	9	115	43	1	0	6
	HSRP								29	0	1
Capital Region	PPC					0	0	0	10	111	1
	DPRP					10	26	0	0	0	0
	HSRP					0	0	0	0	0	0

* Note: One physician's Louisville DPRP recognition was temporarily pended in Q404.

TABLE 2B: Physician Participation by Market & Program - Cumulative											
Market	Program	Q203	Q303	Q403	Q104	Q204	Q304	Q404	Q105	Q205	Q305
		#	#	#	#	#	#	#	#	#	#
Erie	DPRP	0	0	0	0	0	0	0	0	0	0
	HSRP	0	0	0	0	0	0	0	0	0	0
Cincinnati	DPRP	10	11	12	39	44	55	58	77	77	118
Louisville*	DPRP	5	7	8	8	9	12	11	34	36	40
Boston	PPC				34	35	444	465	548	548	548
	DPRP				66	75	190	233	234	234	240
	HSRP								29	29	30
Capital Region	PPC					0	0	0	10	121	122
	DPRP					10	36	36	36	36	36
	HSRP					0	0	0	0	0	0

* Note: One physician's Louisville DPRP recognition was temporarily pended in Q404.

Consistent with BTE's findings, NCQA also reports a significant difference in uptake of the DPRP program in the BTE pilot markets vs. nationally. Specifically, between June 2003 (just prior to BTE implementation in Cincinnati and Louisville) and March 2005, NCQA reports a 212% increase in the number of DPRP-recognized physicians from the BTE pilot market areas vs. a 34% increase in DPRP-recognized physicians nationally.³

RQ1C: What factors and barriers affected physician participation?

This research question was aimed at identifying any issues raised by physicians during BTE implementation that impacted their willingness and/or ability to participate in BTE. This question was addressed through four methods: 1) physician participation metrics identified physician participants as a function of their BTE reward potential, 2) the market-wide physician survey included several items to assess physicians' attitudes toward NCQA performance recognition, their motivations for seeking recognition, and their motivations to invest in system change; 3) the physician reward survey completed by rewarded physicians asked reward recipients to rate specific aspects of the BTE program, including NCQA performance recognition, the reward administration process, and BTE communications; and 4) the BTE project participant and vendor survey asked those involved in implementing the BTE programs about their observations of issues that may have impacted physician participation.

Table 3 reports the results of comparisons (t-tests) of the BTE reward potential (eligible patient counts) between physicians who obtained NCQA performance recognition and those who did not. In order to control for conducting multiple t-tests, significance was set at the .01 level for each t-test conducted. Across all markets and programs, physicians who participated in BTE by obtaining NCQA performance recognition had a higher overall reward potential (as indicated by higher patient counts) than did non-participating physicians.

TABLE 3: Non-Recognized vs. Recognized Physicians' BTE Reward Potential				
Market & Program	t-value	p-level (.01 = sign.)	Non-Recognized Physician Mean Patient Count	Recognized Physician Mean Patient Count
Cincinnati DCL	4.33	<.0001	5.2	10
Louisville DCL	3.35	0.0021	5.2	17.9
Boston DCL	2.47	.0166*	2.2	4.1
Boston POL	13.1	<.0001	10.7	31.9
NY Cap. Reg. POL	8.68	<.0001	18.9	82.8

* marginally significant

³ NCQA, *Bridges to Excellence Incentives & Rewards Workshop* presentation, May 19-20, 2005.

Tables 3A-3E provide results obtained from the market-wide physician survey regarding physicians' attitudes and motivations concerning performance recognition and investment in office system change.

Table 3A reports physicians' attitudes concerning NCQA's performance recognition programs and whether clinical information systems (CIS) improve patient care. Results reveal that about one-third of physician respondents feel strongly and about half feel somewhat/moderately that the NCQA recognition programs demonstrate high quality care and are important to patients, and that clinical information systems improve patient care. Based on follow-up data in Cincinnati/Louisville, Boston and the Capital Region, physicians' perceptions do not appear to have changed over time.

TABLE 3A: Physician Perceptions of Quality Measures/Tools									
Market	DPRP/HSRP Indicates High Quality Care			Importance of DPRP/HSRP Recognition to Patients			Use of CIS Improves Patient Care		
	Not at All	Somewhat/Moderately	Very Much/Extremely	Not at All	Somewhat/Moderately	Very Much/Extremely	Not at All	Somewhat/Moderately	Extremely
BASELINE									
Erie	15%	37%	48%	7%	59%	33%	0%	59%	36%
Cincinnati/Louisville	2%	59%	35%	7%	55%	34%			
Boston	11%	54%	24%	9%	61%	20%	4%	56%	36%
Capital Region	6%	51%	30%	5%	58%	25%	6%	53%	36%
FOLLOW-UP									
Erie	20%	40%	28%	15%	53%	25%	5%	63%	28%
Cincinnati/Louisville	5%	48%	35%	9%	55%	25%			
Boston	7%	61%	20%	8%	59%	20%	3%	51%	42%
Capital Region	2%	45%	49%	4%	61%	32%	0%	56%	36%

Table 3B provides the percentage of physicians who indicated specific reasons why they would seek performance recognition. The majority of physicians indicated that they would seek recognition in order to improve patient care, and most also would do so to demonstrate to their patients that they provide high quality care. There appeared to be no substantial shift over time in physicians' reasons why they would seek recognition, based on Cincinnati/Louisville, Boston and the Capital Region follow-up data. Interestingly, though, the largest change between baseline and follow-up in Cincinnati and Louisville was in the percentage of physicians indicating they would seek recognition in order to indicate to purchasers that they provide high quality care, increasing from 28% at baseline to 35% at follow-up. In Boston the largest change was in the percent of physicians reporting that they would seek recognition to make it easier to respond to external reporting requirements, increasing from 28% at baseline to 39% at follow-up. In the Capital Region the largest change was in the percent of physicians reporting that they would seek recognition to improve their patients' care, increasing from 69% at baseline to 89% at follow-up.

TABLE 3B: Physicians' Reasons Why They Would Seek Performance Recognition						
Market	Improve Patient Care	Indicate Quality to Patients	Indicate Quality to Providers	Indicate Quality to Purchasers	Feedback for Quality Improvement	Ease Response to Reporting Requirements
BASELINE						
Erie	89%	70%	33%	37%	63%	41%
Cincinnati/Louisville	74%	61%	48%	28%	46%	28%
Boston	73%	54%	33%	30%	39%	28%
Capital Region	69%	62%	43%	42%	51%	34%
FOLLOW-UP						
Erie	73%	58%	35%	40%	53%	40%
Cincinnati/Louisville	72%	58%	47%	35%	49%	22%
Boston	71%	58%	36%	36%	43%	39%
Capital Region	89%	80%	57%	49%	66%	49%

Table 3C provides the percentage of physicians who indicated specific reasons why they would consider adopting a new clinical information system (CIS). The majority of physicians indicated that they would consider adopting a new CIS in order to improve patient care and to improve the ease of accessibility of patient information. Up to 10% of physicians in any of the markets were simply not interested in adopting a CIS at all. In Boston and the Capital Region, there appeared to be a decrease in the percent of physicians selecting specific reasons for adopting a CIS; however, this is most likely due to a change in this questionnaire item during the follow-up period that allowed physicians who already had a CIS in place to skip this question.

TABLE 3C: Physicians' Reasons Why They Would Adopt a CIS						
Market	Improve Patient Care	Ease Locating Patient Data	Ease Response to Reporting Requirements	Research Opportunity	Other	Not Interested
BASELINE						
Erie	82%	67%	48%	22%	7%	7%
Cincinnati/Louisville						
Boston	76%	73%	44%	18%	9%	8%
Capital Region	58%	59%	32%	25%	7%	8%
FOLLOW-UP						
Erie	60%	63%	30%	10%	3%	10%
Cincinnati/Louisville	71%	74%	37%	28%	8%	6%
Boston	52%	52%	37%	10%	10%	3%
Capital Region	51%	55%	31%	8%	6%	2%

Table 3D provides physicians' motivations for why they would possibly become a recognized diabetes or cardiac care provider. Approximately half or more physicians agreed they would be motivated to seek recognition if they were compensated for their time to obtain recognition and because it would be a means to demonstrate to their patients that they provide quality care. Nearly half of physicians across markets also agreed they would be motivated to seek recognition if financial rewards were available that represented an increase to their income. In contrast to the other markets, physicians in Boston were much less likely to be motivated to obtain recognition either to demonstrate they provide quality care to their patients or to attract new patients to their

practices. In general for the BTE pilot markets, fewer physicians at follow-up vs. baseline indicated disagreement with any of the motivations for becoming a recognized diabetes or cardiac care provider (e.g., in Boston, at baseline 23% of physicians disagreed that increasing their income was a motivation for obtaining recognition whereas at follow-up only 10% of physicians disagreed that this was a motivation for them). However, physicians in the Erie control market at follow-up indicated increased disagreement over baseline in each motivation category except increased income (disagreement was 11% at baseline compared to 20% at follow-up for compensation, 4% baseline compared to 18% follow-up for demonstrating quality of care, and 19% at baseline compared to 28% at follow-up to attract new patients).

TABLE 3D: Physicians' Motivations for Becoming a Recognized Diabetes/Cardiac Care Provider												
Market	Compensation for Time			Increased Income			Demonstrate Quality			Attract New Patients		
	Disagree	Neutral	Agree	Disagree	Neutral	Agree	Disagree	Neutral	Agree	Disagree	Neutral	Agree
BASELINE												
Erie	11%	33%	52%	22%	26%	48%	4%	26%	70%	19%	30%	44%
Cincinnati/Louisville	11%	15%	67%	18%	16%	57%	13%	21%	60%	27%	27%	38%
Boston	16%	19%	54%	23%	27%	40%	17%	23%	50%	34%	34%	22%
Capital Region	14%	16%	54%	16%	23%	46%	11%	16%	58%	13%	31%	40%
FOLLOW-UP												
Erie	20%	20%	50%	20%	25%	45%	18%	15%	60%	28%	20%	45%
Cincinnati/Louisville	12%	14%	61%	13%	20%	55%	16%	17%	54%	18%	33%	38%
Boston	9%	16%	57%	10%	23%	47%	11%	20%	51%	25%	28%	28%
Capital Region	5%	14%	71%	6%	23%	62%	0%	18%	75%	4%	29%	60%

Table 3E provides physicians' motivations for why they would be motivated to invest in a clinical information system (CIS). The majority of physicians indicated that they would be motivated to invest in a new CIS if they were compensated for their expenses, while relatively few physicians indicated they would do so in order to obtain public recognition. There was some variation across markets in physicians' agreement that financial rewards would be motivating for them, ranging from 46% of Capital Region physicians agreeing to 71% of Cincinnati/Louisville physicians agreeing that an increase in their income would be motivating. In Boston and the Capital Region, the percent of physicians responding to this question decreased at follow-up; however, this is most likely due to a change in this questionnaire item between baseline and follow-up such that physicians that already had a CIS in place did not need to answer this question at follow-up.

TABLE 3E: Physicians' Motivations to Invest in a New Clinical Information System										
Market	Compensation for Expenses			Increased Income			Public Recognition			
	Disagree	Neutral	Agree	Disagree	Neutral	Agree	Disagree	Neutral	Agree	
BASELINE										
Erie	4%	4%	82%	4%	19%	63%	44%	26%	15%	
Cincinnati/Louisville										
Boston	6%	12%	69%	9%	19%	59%	36%	33%	16%	
Capital Region	7%	17%	52%	10%	20%	46%	33%	27%	13%	
FOLLOW-UP										
Erie	8%	15%	58%	13%	20%	45%	53%	25%	25%	
Cincinnati/Louisville	5%	7%	79%	6%	14%	71%	44%	31%	17%	
Boston	4%	4%	55%	4%	9%	48%	23%	21%	15%	
Capital Region	2%	8%	45%	4%	12%	39%	20%	20%	14%	

Table 4 provides BTE-rewarded physicians' assessment of the BTE program. Overall, fully 90% of participants in the DCL program and 76% of participants in the POL program indicated they were highly likely to continue their participation in BTE. For DCL, one-fourth or fewer of respondents indicated that any BTE resources were useful to them in learning about BTE, whereas approximately half of POL respondents felt that interaction or presentations by the BTE Regional Steering Committee and the NCQA program recognition web site were useful to them.

Fewer than half of respondents felt that various aspects of the BTE program were clearly explained to them. The most clearly explained component was the goals of the POL program (76% of respondents responded positively) and the least clearly explained component was the NCQA recognition process for the POL program (only 13% of respondents responded positively).

Most respondents were satisfied with the NCQA recognition process for both the DCL and POL programs. The timeliness of receipt of application materials, the timeliness of NCQA's response to the application, and the availability of resources to answer question rated the highest in satisfaction, while the amount of effort required by the physician/practice to obtain recognition and the clarity of NCQA's instructions for how to apply rated the lowest in satisfaction.

Most respondents also were satisfied with the BTE reward administration process, with both timeliness and size of the reward rated as satisfying by more respondents in the POL program than in the DCL program.

In terms of physicians' and practices' reasons for obtaining performance recognition, the most frequent response for the DCL program was to attract new patients and to demonstrate to purchasers that the physician provides high quality care. In contrast, for the POL program the most frequent response for why they sought recognition was to obtain the financial rewards offered by BTE (fully 79% of respondents selected this option), to demonstrate to purchasers that they provide high quality care (76%) and to use for internal quality improvement efforts (71%).

TABLE 4: BTE-Rewarded Physicians' Perceptions of BTE Reward Programs			
	DCL	POL	CCL
Likelihood of Continued Participation	% Responding <i>Very/ Extremely Likely</i>		
Likelihood of Continued Participation	90%	76%	n/a
Usefulness of BTE Resources	% Responding <i>Very Useful</i>		
Physician Information Packet	18%	16%	n/a
Interaction with BTE Regional Team	14%	45%	n/a
Presentations by BTE Regional Team	14%	55%	n/a
BTE Website	12%	24%	n/a
BTE toll free telephone number	16%	5%	n/a
NCQA Website	26%	55%	n/a
Michael Pine & Associates	4%	n/a	n/a
Clarity of Explanation	% Responding <i>Extremely Clear</i>		
Goals of the BTE Reward Program	47%	76%	n/a
The NCQA Recognition/ Certification Process	45%	13%	n/a
The Risk-Adjustment Scoring Process	29%	n/a	n/a
The Reward Calculation Process	28%	32%	n/a
Satisfaction With NCQA Recognition/Certification Process	% Responding <i>Very Satisfied/ Satisfied</i>		
Timeliness of Receipt of Application Materials	92%	87%	n/a
Clarity of NCQA's Instructions for How to Apply	39%	76%	n/a
Timeliness of NCQA's Response to Application	88%	92%	n/a
Availability of Resources to Answer Questions	84%	92%	n/a
Amt of Effort Req for Entire Application Process	63%	68%	n/a
Satisfaction with Rewards Administration Process	% Responding <i>Very Satisfied/ Satisfied</i>		
Timeliness of Reward Payment Following Certification/ Recognition	78%	95%	n/a
Size of Reward Obtained Relative to Amount of Effort Required to Participate	67%	87%	n/a
Availability of Resources to Answer Questions About Rewards Process	82%	82%	n/a
Reasons for Obtaining Performance Recognition	% Indicating Agreement		
Obtain the Financial Rewards Offered by BTE	29%	79%	n/a
Retain Current Patients	28%	37%	n/a
Attract New Patients	37%	53%	n/a
Demonstrate to Purchasers that I Provide High Quality Care	37%	76%	n/a
Use for My Own Internal Quality Improvement Efforts	28%	71%	n/a
Ease Responding to Reporting Requirements (e.g., HEDIS)	16%	24%	n/a
Other	0%	0%	n/a

The project participant and vendor survey included a question pertaining to reasons physicians and practices provided for deciding to participate in BTE. The most frequently cited reason was that physicians indicated they wished to participate in BTE in order to improve the overall quality of care provided to their patients, and the efficiency and effectiveness of the care provided their practice. Monetary incentives was also frequently mentioned, especially for those practices that already had most of the necessary systems and processes to obtain recognition in place.

RQ1D: Did physician healthcare behaviors change in the market over time?

This research question focused on the extent to which physicians' care management practices changed over time in the BTE pilot markets. This question was addressed through three methods: 1) BTE program participation metrics included tracking the level of practice improvement made by practices based on the number of modules for which they obtained recognition in NCQA's PPC program; 2) the market-wide physician survey included questions related to the types of care practices and systems that physicians have in place; and 3) the BTE project participant and vendor survey asked those involved in implementing the BTE programs about their observations of changes made by physicians in order to participate in BTE.

Table 5 presents the level of implementation of office system change by practices participating in the POL program. In particular, for each of the three areas of office system change (clinical information systems, patient education and support, and care management), practices are able to obtain performance recognition through NCQA's PPC program for different levels (modules) associated with their degree of change in the area. For instance, Level 1 of the CIS category represents relatively simple patient registries whereas Level 3 represents comprehensive Electronic Medical Record systems. In Boston, only 3 of 51 recognized practices have achieved recognition for all 3 levels in all 3 program areas, and in the Capital Region 2 of 5 practices have passed all 9 modules. All practices passed the CIS Level 1, with relatively few achieving the standards for Level 2 or Level 3 recognition. Practices have been more likely to obtain recognition for at least two levels in the Patient Education & Support and Care Management areas. Because the POL Program has only been active for one year in Boston and the Capital Region, none of these initial recognized practices have yet come forward with additional system improvements to pass additional PPC modules.

TABLE 5: Practices Level of Implementation of Office System Change (PPC Program Modules Passed)									
Market (# of Practices)	Clinical Information Systems			Patient Education & Support			Care Management		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Boston (51 practices)	51	6	6	46	22	30	37	14	25
Capital Region (5 practices)	5	3	2	5	4	2	5	5	2

Tables 6A-6M provide results obtained from the market-wide physician survey regarding physicians' specific healthcare behaviors, including the methods and tests they use, the existence of patient registries and electronic systems in their practices, their use of patient referral programs, and the types of quality improvement programs they have in place.

Table 6A reports the types of methods that physicians use to prevent drug interactions and to ensure follow-up on abnormal lab tests for their patients. The vast majority of physicians rely upon medical record review to prevent drug interactions and they rely upon direct follow-up with the patient regarding abnormal lab results. Interestingly, at baseline physicians in the Erie control market were more likely to utilize electronic office systems to prevent drug interactions (44%) than were physicians in any of the BTE pilot markets. However, in Boston and the Capital Region, the percentage of physicians reporting use of an electronic office system to prevent drug interactions increased from 24% and 14%, respectively, at baseline to 39% and 44%, respectively, at follow-up.

TABLE 6A: Methods Used by Physicians in Treatment of Patients								
Market	Methods to Prevent Drug Interactions				Methods to Follow-Up on Abnormal Lab Tests			
	Med. Rec. Review	E-Office System	Pharmacy	Other	F/U with Patient	Std. Writ. Protocol	No Std. Approach	Other
BASELINE								
Erie	93%	44%	52%	4%	96%	37%	4%	4%
Cincinnati/Louisville								
Boston	93%	24%	41%	7%	92%	16%	8%	7%
Capital Region	96%	14%	31%	6%	96%	23%	2%	1%
FOLLOW-UP								
Erie	85%	20%	50%	5%	95%	23%	3%	5%
Cincinnati/Louisville	88%	9%	51%	8%	86%	21%	1%	9%
Boston	86%	39%	45%	5%	92%	18%	8%	6%
Capital Region	89%	44%	44%	12%	92%	20%	0%	4%

Table 6B provides a summary of the types of patient populations (in terms of diseases) for which physician practices have a patient registry. Overall, approximately half of all physicians in each market do not have any type of searchable patient registry. Of those physicians who do have a

registry, the most common disease type tracked is diabetes (approximately equivalent with cardiovascular disease in the Capital Region). In the Erie control market, about one-third of physicians have access to a patient registry that is searchable for all diseases vs. only 10-15% of physicians in the BTE pilot markets at baseline. In Boston, the percentage of physicians indicating their practice had a registry for diabetic patients increased the most across the BTE pilot markets, from 18% at baseline to 30% at follow-up.

TABLE 6B: Patient Populations for Which Practice Has a Disease Registry													
Market	Do Not Use	All Diseases Searchable	Asthma	Diabetes	HIV/AIDS	Cardio Disease	Renal Disease	Substance Abuse	Congestive Heart Failure	Connective Tissue Dis.	Cancer	Morbid Obesity	Other
BASELINE													
Erie	48%	33%	19%	26%	7%	11%	7%	7%	19%	4%	7%	4%	15%
Cincinnati/Louisville													
Boston	53%	12%	15%	18%	3%	3%	1%	1%	2%	0%	1%	1%	6%
Capital Region	57%	16%	11%	13%	0%	14%	0%	1%	11%	0%	1%	1%	3%
FOLLOW-UP													
Erie	60%	18%	13%	10%	0%	3%	3%	0%	8%	0%	3%	0%	3%
Cincinnati/Louisville	59%	12%	8%	12%	2%	2%	2%	2%	1%	0%	1%	1%	6%
Boston	46%	11%	21%	30%	3%	4%	1%	1%	4%	0%	0%	1%	7%
Capital Region	44%	26%	20%	23%	1%	6%	0%	1%	2%	0%	1%	0%	6%

Table 6C identifies the types of electronic systems that physician practices have in place. In the BTE pilot markets, the most prevalent electronic system is e-mail, with about two-thirds of physicians in Boston and the Capital Region reporting having e-mail but only about one-third of physicians in Cincinnati and Louisville having e-mail. Indeed, fully one-fourth of physicians in Cincinnati and Louisville report having no type of electronic systems in place at all. In contrast, in the Erie control market, the most common electronic system reported by physicians is an electronic patient referral system. In Boston, the percent of physicians reporting use of an electronic system for prescription ordering increased from 36% at baseline to 49% at follow-up. In the NY Capital Region, significant changes were seen in the percent of physicians reporting the use of electronic medical records increased from 37% at baseline to 45% at follow-up and 18% reported the use of electronic referral system at baseline compared to 43% at follow-up.

TABLE 6C: Electronic Systems in Place									
Market	Lab Test Ordering	Patient Registry	List of High - Risk Patients	Electronic Referral System	Prescription Ordering	Electronic Medical Records	E-Mail Communication	None	Other
BASELINE									
Erie	30%	41%	15%	74%	30%	37%	44%	4%	0%
Cincinnati/Louisville									
Boston	17%	40%	7%	33%	36%	42%	67%	10%	5%
Capital Region	38%	42%	11%	18%	30%	37%	60%	14%	6%
FOLLOW-UP									
Erie	18%	45%	10%	23%	20%	20%	40%	20%	0%
Cincinnati/Louisville	33%	26%	4%	6%	9%	8%	33%	25%	8%
Boston	16%	39%	9%	37%	49%	44%	63%	10%	7%
Capital Region	43%	49%	13%	43%	37%	45%	62%	7%	13%

Table 6D presents the types of programs to which physicians referred their patients during the preceding 12 months. The most common type of program referral for all patients was to a nutritionist, with three-fourths or more of physicians making this type of referral in all markets.

TABLE 6D: Type of Programs to Which Patients Were Referred in Prior 12 Months (% of Physicians with at Least One Such Referral)						
Market	Smoking Cessation	Substance Abuse	Education for Chronic Conditions	Weight Loss	Exercise	Nutritionist
BASELINE						
Erie	59%	56%	78%	74%	52%	82%
Cincinnati/Louisville						
Boston	61%	55%	50%	75%	47%	90%
Capital Region	71%	52%	52%	77%	64%	91%
FOLLOW-UP						
Erie	70%	48%	73%	80%	70%	83%
Cincinnati/Louisville	51%	42%	62%	55%	53%	74%
Boston	57%	54%	50%	70%	48%	86%
Capital Region	54%	50%	69%	61%	54%	81%

Table 6E presents the types of programs or methods used by physicians to improve the quality of care that they provide to at-risk patient populations. The most common method used was literature review by the physicians, identified by one-third to nearly half of physicians. Quality improvement methods, such as committees, written goals, and timelines, were used by one-third or fewer physicians.

TABLE 6E: Type of Programs/Methods to Improve Quality of Care for At-Risk Populations						
Market	Quality Improvement Committee	Written QI Goals	Quality Improvement Timelines	Effectiveness Assessment	Literature Review	Other
BASELINE						
Erie	37%	33%	15%	37%	44%	7%
Cincinnati/Louisville						
Boston	20%	25%	11%	17%	32%	10%
Capital Region	8%	20%	5%	20%	47%	6%
FOLLOW-UP						
Erie	15%	13%	18%	28%	58%	8%
Cincinnati/Louisville	20%	25%	13%	25%	40%	2%
Boston	19%	25%	12%	17%	31%	8%
Capital Region	20%	12%	10%	14%	42%	11%

Tables 6F and **6G** presents the length of time it would take physicians to compile a list of all of their patients with diabetes or cardiovascular disease. In the BTE pilot markets, only one-third to one-half of physicians could compile this type of list in less than one day, whereas two-thirds of physicians could do this in the Erie control market (though this percentage dropped down to 48% at follow-up). In Cincinnati and Louisville, fully 40% of physicians indicated that it would take them more than 3 days to compile a list of their diabetic patients.

TABLE 6F: Length of Time Required to Obtain List of Patients with Diabetes (vs. Number of Diabetic Patients)								
Market	Length of Time Required to Obtain a List of Patients with Diabetes			Number of Patients in Practice with Diabetes				
	Less Than 1 Day	1-3 Days	More Than 3 Days	0-49	50-99	100-199	200-299	300+
BASELINE								
Erie	63%	30%	7%	22%	26%	11%	22%	19%
Cincinnati/Louisville	35%	24%	40%	17%	11%	16%	15%	39%
Boston	49%	26%	25%	36%	15%	16%	8%	19%
Capital Region	49%	33%	18%	21%	7%	13%	19%	34%
FOLLOW-UP								
Erie	48%	10%	40%	15%	10%	15%	10%	43%
Cincinnati/Louisville	35%	47%	18%	21%	11%	9%	18%	35%
Boston	49%	14%	30%	40%	12%	15%	9%	17%
Capital Region	30%	5%	10%	14%	5%	11%	12%	49%

TABLE 6G: Length of Time Required to Obtain List of Patients with CVD (vs. Number of Cardiac Patients)								
Market	Length of Time Required to Obtain a List of Patients with CVD			Number of Patients in Practice with CVD				
	Less Than 1 Day	1-3 Days	More Than 3 Days	0-49	50-99	100-199	200-299	300+
BASELINE								
Erie								
Cincinnati/Louisville								
Boston								
Capital Region	51%	33%	16%	19%	3%	8%	19%	44%
FOLLOW-UP								
Erie	50%	10%	38%	10%	10%	10%	20%	43%
Cincinnati/Louisville								
Boston	37%	15%	39%	29%	15%	13%	12%	22%
Capital Region	31%	5%	10%	14%	1%	7%	13%	55%

Tables 6H and 6I present the frequency with which physicians indicated performing specific preventive and screening tests with their diabetic and cardiac patients. For diabetes, the majority of physicians perform an eye exam and conduct a depression screen once a year or less. Diabetic patients' HbA1c levels are checked two to four times per year by most physicians. There was some variability in how frequently physicians performed HDL/LDL screenings and foot exams, with physicians in Erie being significantly more likely to perform a foot exam at each patient visit than physicians in the BTE markets. For cardiovascular disease, most physicians take cardiac patients' blood pressure at each visit, conduct a cholesterol screen and lipid profile two to four times per year, and perform a stress test and diabetes screen once a year or less.

TABLE 6H: Frequency of Performing Diabetes Exams/Tests															
Market	Foot Exam			HDL/LDL			HbA1c			Depression			Dilated Eye Exam		
	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less
BASELINE															
Erie	63%	26%	7%	4%	37%	56%	4%	93%	0%	19%	4%	70%	0%	4%	85%
Cincinnati/Louisville	24%	22%	38%	0%	39%	45%	5%	71%	10%	11%	7%	62%	4%	2%	83%
Boston	25%	29%	38%	1%	41%	50%	5%	78%	9%	14%	12%	64%	0%	3%	89%
Capital Region	27%	33%	12%	1%	47%	26%	2%	66%	6%	15%	7%	51%	0%	1%	69%
FOLLOW-UP															
Erie	35%	30%	23%	3%	65%	20%	5%	75%	8%	10%	10%	65%	3%	8%	75%
Cincinnati/Louisville	25%	25%	29%	1%	42%	34%	5%	58%	14%	11%	5%	60%	1%	0%	74%
Boston	20%	24%	29%	1%	45%	28%	3%	67%	4%	10%	9%	52%	1%	2%	70%
Capital Region	33%	26%	16%	1%	54%	20%	4%	71%	0%	8%	12%	50%	1%	1%	73%

TABLE 6I: Frequency of Performing Cardiovascular Disease Exams/Tests															
Market	Blood Pressure Reading			Cholesterol Screen (LDL)			Complete Lipid Profile			Stress Test			Diabetes Screening		
	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less	Each Visit	2-4x/Yr	Yearly or Less
BASELINE															
Erie															
Cincinnati/Louisville															
Boston															
Capital Region	75%	5%	3%	1%	55%	25%	1%	54%	26%	0%	1%	72%	2%	18%	60%
FOLLOW-UP															
Erie	88%	0%	0%	3%	63%	23%	3%	55%	30%	0%	0%	80%	5%	23%	60%
Cincinnati/Louisville															
Boston	62%	10%	1%	1%	44%	27%	1%	38%	33%	0%	1%	67%	1%	19%	52%
Capital Region	71%	7%	0%	2%	45%	27%	2%	45%	29%	0%	0%	67%	0%	24%	51%

Table 6J presents the approaches used by physicians to minimize hospitalizations among their diabetic and cardiac patients. The most prevalent methods were coordination of specialty and ancillary care by the physicians, with only about one-third to one-half of physicians using some type of care management program.

TABLE 6J: Approaches Used to Minimize Patient Hospitalizations										
Market	Among Diabetic Patients					Among Cardiac Patients				
	Refer Patient to External Care Mgmt Program	Use Practice's Care Mgmt Program	Coordinate Specialty Care	Coordinate Ancillary Care	Other	Refer Patient to External Care Mgmt Program	Use Practice's Care Mgmt Program	Coordinate Specialty Care	Coordinate Ancillary Care	Other
BASELINE										
Erie	44%	44%	78%	70%	4%					
Cincinnati/Louisville	49%	48%	76%	68%	6%					
Boston	37%	42%	70%	59%	4%					
Capital Region	47%	33%	63%	53%	2%	29%	31%	68%	53%	1%
FOLLOW-UP										
Erie	38%	50%	70%	70%	3%	30%	53%	73%	68%	3%
Cincinnati/Louisville	34%	48%	72%	66%	2%					
Boston	39%	38%	56%	46%	1%	36%	24%	54%	40%	1%
Capital Region	52%	48%	71%	58%	1%	37%	31%	69%	57%	0%

Tables 6K and 6L present the methods used by physicians to manage the care of their diabetic and cardiac patients. The most prevalent methods used were office staff calls to patients regarding appointments and use of certified patient educators (especially for diabetes). A slight increase in Cincinnati/Louisville and a more modest increase in the NY Capital Region over time was observed in physicians' use of computer calls to patients regarding appointments and use of high-risk case managers.

TABLE 6K: Methods Used to Manage Diabetic Patient Care							
Market	Office Staff Call to Remind Patients of Appt	Computer Calls to Remind Patients of Appt	Regular Mail/E-Mail Regarding Management	Use of High-Risk Case Managers	Access to Certified Patient Educators	Contract With Disease Mgmt Organization	Other
BASELINE							
Erie	52%	41%	11%	26%	78%	15%	7%
Cincinnati/Louisville	63%	6%	9%	13%	70%	4%	10%
Boston	67%	15%	16%	22%	58%	10%	4%
Capital Region	64%	5%	13%	12%	58%	4%	1%
FOLLOW-UP							
Erie	68%	15%	3%	33%	58%	18%	3%
Cincinnati/Louisville	58%	17%	6%	21%	68%	8%	4%
Boston	59%	11%	17%	31%	54%	11%	1%
Capital Region	74%	12%	12%	32%	74%	5%	0%

TABLE 6L: Methods Used to Manage Cardiac Patient Care							
Market	Office Staff Call to Remind Patients of Appt	Computer Calls to Remind Patients of Appt	Regular Mail/E-Mail Regarding Management	Use of High-Risk Case Managers	Access to Certified Patient Educators	Contract With Disease Mgmt Organization	Other
BASELINE							
Erie							
Cincinnati/Louisville							
Boston							
Capital Region	70%	14%	14%	9%	33%	4%	1%
FOLLOW-UP							
Erie	65%	15%	3%	30%	33%	10%	3%
Cincinnati/Louisville							
Boston	55%	12%	12%	28%	20%	10%	1%
Capital Region	74%	12%	11%	14%	27%	5%	0%

Table 6M identifies the percentage of physicians who have an electronic system in place that alerts them when patients are not in compliance with suggested care guidelines. Across markets, less than one-third of physicians had such systems in place at baseline, with the highest percentage in the Erie control market. At follow-up, both Boston and the Capital Region saw an increase in electronic alert systems for patient non-compliance. From 25% of physicians indicating they had an electronic system to 36% in Boston and from 12% to 33% in the Capital Region.

TABLE 6M: Electronic System Alerts When Patient Not in Compliance		
Market	Diabetic Patients	Cardiac Patients
Baseline		
Erie	30%	
Cincinnati/Louisville	9%	
Boston	25%	
Capital Region	12%	12%
Follow-Up		
Erie	10%	10%
Cincinnati/Louisville	8%	
Boston	36%	23%
Capital Region	33%	32%

The project participant and vendor survey included a question regarding changes that were made by physicians and practices in order to obtain NCQA's performance recognition. The most frequently mentioned responses were the following: implementation of written protocols and procedures (i.e., documentation and standardization), assuring medical care was aligned with best practice guidelines, and actively following up with patients (e.g., using a tracking system for patients with chronic conditions).

B. RQ2: Do the BTE programs engage patients?

RQ2A: Did the number/percent of patients seeing recognized physicians increase over time?

This research question focuses on whether more of the BTE participating employers' patients are being treated by high-performing (recognized) physicians over time. This question was addressed through two methods: 1) BTE program participation metrics included tracking the number of patients treated by recognized physicians over time; and 2) the market-wide patient survey included questions related to patients' awareness of quality improvement programs and their perceived importance to patients.

Table 7A below provides the number of new patients being treated by NCQA-recognized physicians each quarter, and **Table 7B** presents the cumulative count of patients seeing NCQA-recognized physicians, by BTE reward program. During the first two years of the BTE pilot, the Cincinnati market has seen over a 200% increase and the Louisville market has seen a 75% increase in the number of employer participants' diabetic patients who are being treated by DPRP-recognized physicians. In Boston's first year of program implementation, the number of project participants' members being treated in office practices with some level of office systems in place (PPC-recognized) has increased nearly 1000% and the number of employers' diabetic patients seeing DPRP-recognized physicians has more than doubled. The Capital Region has also seen a significant jump in its first year of program implementation from 0 to 850 physicians demonstrating they practice in offices with some type of systematic processes in place.

TABLE 7A: Patients Seeing Recognized Physicians by Market & Program - Quarterly											
Market	Program	Q203	Q303	Q403	Q104	Q204	Q304	Q404	Q105	Q205	Q305
		#	#	#	#	#	#	#	#	#	#
Erie	DPRP	0	0	0	0	0	0	0	0	0	0
	HSRP	0	0	0	0	0	0	0	0	0	0
Cincinnati*	DPRP	158	10	10	109	58	124	421	81	0	188
Louisville*	DPRP	230	19	10	-4	23	44	-7	134	36	23
Boston*	PPC				683	0	7039	321	-1141	0	1118
	DPRP				152	18	60	155	-47	2	53
	HSRP								0	0	0
Capital Region*	PPC					0	0	0	850	4916	139
	DPRP					65	0	0	8	-6	0
	HSRP					0	0	0	0	0	0

* Note: Patients seeing recognized physicians may have decreased in some cases due to data refreshes that occurred in Q404 (Cincinnati and Louisville) and Q105 (Boston) based on new data extracts provided by the health plans.

TABLE 7B: Patients Seeing Recognized Physicians by Market & Program - Cumulative											
Market	Program	Q203	Q303	Q403	Q104	Q204	Q304	Q404	Q105	Q205	Q305
		#	#	#	#	#	#	#	#	#	#
Erie	DPRP	0	0	0	0	0	0	0	0	0	0
	HSRP	0	0	0	0	0	0	0	0	0	0
Cincinnati*	DPRP	158	168	178	287	345	469	890	971	971	1159
Louisville*	DPRP	230	249	259	255	278	322	315	449	485	508
Boston*	PPC				683	683	7722	8043	6902	6902	8020
	DPRP				152	170	230	385	338	340	393
	HSRP								0	0	0
Capital Region*	PPC					0	0	0	850	5716	5855
	DPRP					65	65	65	73	67	67
	HSRP					0	0	0	0	0	0

* Note: Patients seeing recognized physicians may have decreased in some cases due to data refreshes that occurred in Q404 (Cincinnati and Louisville) and Q105 (Boston) based on new data extracts provided by the health plans.

In Cincinnati/Louisville, the follow-up diabetic patient survey included several questions that assessed patients' awareness and interest in a program such as BTE. A total of 41% of respondents indicated that they were aware of a diabetic patient care improvement program in their area, and 15% were aware specifically of NCQA's diabetes provider recognition program (DPRP) or the BTE program. Only 17% of diabetic patients indicated awareness of whether their physician had DPRP recognition (about half did and half did not). However, the majority of diabetic patients indicated that they felt that their physician having performance recognition was very or extremely important.

In terms of participation in a diabetes self-care management program, only 26% of diabetic patients indicated they would be interested in using a web-based care management tool. The existence of a monetary incentive to use a web-based tool did not increase respondents' interest in this type of platform (only 28% of patients indicated they would be very or extremely likely to use such a tool if monetary incentives were available).

RQ2B: Did patient participation in the consumer rewards program increase over time?

This research question concerns whether more diabetic patients are participating in the BTE consumer rewards program, Diabetes CareRewards (DCR). This question was addressed via BTE program participation metrics of the number of new patients enrolled in the DCR program, including the referral sources used by patients to initiate their enrollment in the program.

Table 8A below provides the number of new diabetic patients enrolling in BTE's Diabetes CareRewards (DCR) program each quarter, and **Table 8B** presents the cumulative count of diabetic patients enrolled in the DCR program. During the first year of the DCR program in the BTE pilot markets, enrollment has been slow. With a total eligible diabetic population of 9,261 across the four pilot markets, only 203 patients (2.2%) are currently participating, ranging from 0.8% participation in Boston to 2.9% in the NY Capital Region (note that some diabetic patients not identified in the initial diabetic population may sign up on the web site).

TABLE 8A: Patients Enrolled in Diabetes CareRewards Program by Market - Quarterly					
Market	Q304	Q404	Q105	Q205	Q305
	#	#	#	#	#
Cincinnati	53	20	28	34	19
Louisville	12	27	15	25	17
Boston	6	1	1	15	1
Capital Region	25	4	11	44	26

TABLE 8B: Patients Enrolled in Diabetes CareRewards Program by Market - Cumulative					
Market	Q304	Q404	Q105	Q205	Q305
	#	#	#	#	#
Cincinnati	53	73	101	135	154
Louisville	12	39	54	79	96
Boston	6	7	8	23	24
Capital Region	25	29	40	84	110

Table 8C below provides the number of diabetic patients enrolled in the DCR program who have redeemed their health-related bonus points for rewards each quarter, and **Table 8D** presents the cumulative count of diabetic patients who have redeemed bonus points. To date only one patient in one market has redeemed bonus points for rewards.

TABLE 8C: DCR Patients with Bonus Redemptions by Market - Quarterly					
Market	Q304	Q404	Q105	Q205	Q305
	#	#	#	#	#
Cincinnati	0	0	0	0	0
Louisville	0	0	0	0	0
Boston	0	0	0	0	0
Capital Region	0	0	1	1	0

TABLE 8D: DCR Patients with Bonus Redemptions by Market - Cumulative					
Market	Q304	Q404	Q105	Q205	Q305
	#	#	#	#	#
Cincinnati	0	0	0	0	0
Louisville	0	0	0	0	0
Boston	0	0	0	0	0
Capital Region	0	0	1	2	2

C. RQ3: What market factors were related to successful implementation of BTE?

RQ3A: Are there any factors that affected program success differentially in the BTE pilot markets?

This research question is designed to assess the factors that were related to successful program implementation in the different BTE markets. This question was addressed through the BTE project participant and vendor survey which obtained information from those implementing BTE in their local markets regarding the factors that positively impacted on program success and feedback obtained from physicians regarding program implementation.

Several factors were commonly cited by respondents that resulted in program success in their markets. First, brand name recognition was identified as a key component of program success. BTE implemented a number of activities both within the local pilot markets and nationally to promote awareness and recognition of the BTE program, including media coverage, a BTE newsletter, and having local leaders speak at professional meetings.

Second, ensuring strong involvement of the BTE Regional Steering Committee in each market was identified as a key determinant of success. In some of the markets, direct outreach and promotional efforts by BTE participants in the local market area were more limited during the first program year, and physician participation in the program was relatively slow despite the use of generalized outreach activities (such as targeted mailings to physicians). In subsequent program years the Regional Teams became more directly engaged in outreach activities (utilizing contacts and knowledge of the local market) in the local market and program participation increased.

Finally, respondents mentioned the importance of engaging physicians and provider organizations early in the program and providing frequent updates. In both the Boston and NY Capital Region markets, large IPAs were engaged at the onset of the program, and participation by key leaders at these organizations was critical to the subsequent participation of the practices and physicians affiliated with these groups.

RQ3B: What barriers were encountered in implementing the program?

This research question focuses on barriers that were encountered in implementing the BTE program in the different pilot markets. This question was addressed through the BTE project participant and vendor survey which obtained information from those implementing BTE in their local markets regarding the factors that negatively impacted on program success, changes made during implementation to overcome these barriers, and feedback obtained from physicians regarding program implementation.

The most frequently cited barrier to program success was changes made in the BTE program after initial launch in the pilot markets. In order to better align program goals with program operations, BTE implemented several changes to the program after its initial launch, most notably in the Boston and NY Capital Region markets. Examples of changes made midstream included a different methodology for attributing patients to physicians and a change to the types of physician specialists who were eligible for the program. These types of changes part-way through the 3-year pilot program were perceived negatively (“changing the rules”) by some physicians and practices, particularly if they were negatively impacted by the change (i.e., reduced reward eligibility). In a separate survey question specifically focused on the BTE reward process, respondents indicated that the rules used by BTE to determine reward eligibility and calculate rewards were very complicated and difficult to understand, and this became even more problematic when the rules were changed midway through the program.

A second barrier identified to physician/practice participation in BTE was that the NCQA recognition process was difficult and cumbersome. Indeed, in a separate question regarding the NCQA application and recognition process, respondents frequently noted that physicians and practices they interacted with identified the difficulty in understanding the process and the significant time involved in getting through the recognition process. Several of the respondents reported that practice managers indicated that the application process for one of the programs (Physician Practice Connections for the POL program) took 80-100 hours to complete the application, and it was often necessary to do this work at night and on weekends because the practices did not have the resources to devote during regular business hours.

Survey respondents also were asked about any changes made in the market to overcome barriers identified in the program. In Cincinnati and Louisville, a program called DPRP Assist was launched in the second year of the pilot DCL program. This subsidized program provided clinical nurse assistance in abstracting medical information necessary for the DPRP application process to physicians and practices seeking recognition as part of the BTE program. Introduction of DPRP Assist was instrumental in increasing the number of physician participants in DCL in the Cincinnati and Louisville markets.

In Boston and the NY Capital Regions, the large physician medical groups identified a key contact person to serve as the lead liaison between the practices and BTE. This change resulted in greater practice participation in BTE, particularly the POL program which was highly profiled in these markets.

D. RQ4: Does participation in the BTE programs result in healthier patients and reduced healthcare costs?

RQ4A: Did patient healthcare behaviors and outcomes change in the market over time?

This research question focused on the extent to which diabetic and cardiac patients' own self-care management behaviors and their clinical outcomes changed over time. This question was addressed through two methods: 1) the market-wide patient survey administered to a sample of diabetic and cardiac patients in the markets; and 2) diabetic patients' self-reported HbA1c levels as part of the Diabetes CareRewards program.

Tables 9A-9L provide results obtained from the market-wide patient survey regarding diabetic and cardiac patients' self-reported health status and healthcare behaviors.

Tables 9A and **9B** report on diabetic and cardiac patients self-reported health status. Overall, approximately two-thirds of patients rated their health status as good or excellent, with one-third reporting their health status as poor or fair. Diabetic patients tended to visit their physician somewhat more frequently than did cardiac patients (3-5 times per year vs. 1-2 times per year), but cardiac patients were far more likely to be hospitalized at least once during the preceding year than were diabetic patients (35% vs. <10%). During the preceding year, fully one-third of diabetic patients saw their physicians specifically for a diabetes-related problem and nearly 20% of cardiac patients suffered a heart attack or stroke.

TABLE 9A: Diabetic Patients' Health Status															
Market	Health Rating				# Dr. Visits Past Year*					Saw Dr. for Diab. Prob.*	# Hosp. Visits Past Year*				
	Poor	Fair	Good	Excell.	0	1-2	3-5	6-10	11+		0	1	2	3	4+
BASELINE															
Indiana	4%	29%	59%	7%	4%	25%	56%	9%	6%	31%	92%	4%	3%	1%	0%
Cincinnati/Louisville					61%	33%	5%	1%	0%		96%	2%	0%	0%	0%
Boston	3%	20%	65%	11%	5%	31%	48%	11%	4%	36%	93%	3%	2%	1%	1%
Capital Region	3%	24%	61%	12%	4%	31%	53%	9%	2%	40%	95%	3%	1%	0%	0%
FOLLOW-UP															
Indiana	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cincinnati/Louisville	4%	26%	61%	7%	3%	30%	53%	10%	4%	40%	96%	3%	1%	0%	0%
Boston	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Capital Region	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

* Past 3 months for Cinc/Louis baseline.

TABLE 9B: Cardiac Patients' Health Status															
Market	Health Rating				# Dr. Visits Past Year					Hrt. Attk. Or Stroke	# Hosp. Visits Past Year				
	Poor	Fair	Good	Excell.	0	1-2	3-5	6-10	11+		0	1	2	3	4+
BASELINE															
Indiana															
Cincinnati/Louisville															
Boston															
Capital Region	3%	19%	67%	10%	6%	50%	35%	6%	2%	19%	65%	25%	7%	1%	1%

Tables 9C and 9D report on diabetic and cardiac patients' self-reported degree of adherence to specific self-care practices related to their chronic condition. Overall, the majority of diabetic and cardiac patients agree they are compliant with specific recommended behaviors for treating their diabetes or cardiac disease. Diabetic patients are most compliant with taking their medications (nearly 90%) and having regular eye exams (80-85%), and least compliant with maintaining a glucose diary (50-60%). Cardiac patients are most compliant with having their cholesterol checked (95%) and not smoking (85-90%) and least compliant with maintaining a blood pressure diary (30%).

TABLE 9C: Diabetic Patients' Pro-Active Self-Care Behaviors															
Market	Glucose Test			Glucose Diary			Medications			Eye Exam			Check Feet		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE															
Indiana	18%	4%	78%	31%	6%	60%	4%	3%	92%	15%	8%	77%	23%	8%	69%
Cincinnati/Louisville															
Boston	16%	8%	75%	35%	9%	55%	2%	7%	87%	8%	1%	90%	21%	7%	71%
Capital Region	18%	4%	76%	32%	8%	58%	3%	5%	88%	9%	1%	86%	20%	7%	71%
FOLLOW-UP															
Indiana	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cincinnati/Louisville	18%	4%	76%	35%	11%	53%	3%	5%	88%	13%	2%	83%	25%	5%	69%
Boston	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Capital Region	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

TABLE 9D: Cardiac Patients' Pro-Active Self-Care Behaviors															
Market	Blood Pressure Test			Blood Pressure Diary			Medications			Check Cholesterol			No Smoking		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE															
Indiana															
Cincinnati/Louisville															
Boston															
Capital Region	40%	5%	62%	52%	16%	29%	3%	14%	82%	3%	1%	96%	11%	1%	87%

Tables 9E and 9F report on diabetic and cardiac patients' self-reported degree of adherence to proper diet and exercise guidelines. Overall, approximately half to two-thirds of patients exercise regularly but only one-fourth or fewer patients agree they maintain a proper weight and follow a good diet.

TABLE 9E: Diabetic Patients' Diet/Exercise Practices												
Market	Exercise Regularly			Count Carbohydrates			Maintain Ideal Weight			Follow Good Diet		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE												
Indiana	31%	16%	52%	45%	11%	41%	83%	4%	13%	69%	8%	21%
Cincinnati/Louisville												
Boston	28%	9%	63%	45%	7%	47%	73%	3%	23%	61%	9%	28%
Capital Region	27%	8%	64%	50%	7%	41%	78%	5%	16%	65%	9%	24%
FOLLOW-UP												
Indiana	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cincinnati/Louisville	27%	10%	61%	44%	11%	43%	78%	4%	16%	63%	6%	25%
Boston	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Capital Region	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

TABLE 9F: Cardiac Patients' Diet/Exercise Practices												
Market	Exercise Regularly			Count Calories			Maintain Ideal Weight			Follow Good Diet		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE												
Indiana												
Cincinnati/Louisville												
Boston												
Capital Region	21%	10%	68%	55%	7%	37%	69%	6%	24%	58%	15%	26%

Tables 9G and 9H report on diabetic and cardiac patients' confidence in their ability to care for their diabetes or cardiovascular disease. Overall, fully 70-80% of patients expressed confidence in their ability to manage their condition, including managing long-term complications.

TABLE 9G: Diabetic Patients' Confidence in Ability to Manage their Diabetes												
Market	Blood Sugar			Medical Care			Long-Term Complic.			Exercise		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE												
Indiana	9%	9%	82%	9%	9%	80%	11%	3%	85%	18%	13%	67%
Cincinnati/Louisville*	2%	12%	83%	3%	9%	84%	5%	15%	77%	2%	18%	77%
Boston	9%	10%	81%	7%	8%	82%	14%	5%	80%	15%	11%	73%
Capital Region	13%	9%	77%	9%	8%	81%	15%	6%	78%	16%	11%	70%
FOLLOW-UP												
Indiana	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cincinnati/Louisville	13%	10%	75%				12%	6%	80%	15%	11%	72%
Boston	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Capital Region	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

* Note: Baseline Cincinnati/Louisville response options were no confidence (classified as disagree), a small amount of confidence (classified as neutral), or a moderate amount or great deal of confidence (classified as agree).

TABLE 9H: Cardiac Patients' Confidence in Ability to Manage their Cardiovascular Disease												
Market	Blood Pressure			Medical Care			Long-Term Complic.			Exercise		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE												
Indiana												
Cincinnati/Louisville												
Boston												
Capital Region	9%	11%	78%	15%	11%	73%	12%	2%	85%	15%	9%	75%

Tables 9I and 9J report on diabetic and cardiac patients' knowledge of their condition and the appropriate care they need to manage it. Both diabetic and cardiac patients feel they are very knowledgeable about their condition and condition-specific care requirements, such as how to control their blood sugar levels or blood pressure. Patients were least confident in their knowledge about how to use exercise to help them manage their condition.

TABLE 9I: Diabetic Patients' Knowledge of their Diabetes and How to Manage It												
Market	Blood Sugar			Long-Term Complic.			Exercise			Foot Care		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE												
Indiana	7%	3%	89%	3%	3%	93%	23%	16%	61%	12%	8%	78%
Cincinnati/Louisville*	4%	10%	82%				3%	17%	76%	5%	15%	77%
Boston	9%	3%	89%	3%	2%	94%	14%	15%	71%	13%	7%	80%
Capital Region	8%	2%	88%	3%	1%	93%	21%	16%	61%	11%	7%	81%
FOLLOW-UP												
Indiana	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cincinnati/Louisville	7%	3%	90%	5%	4%	90%	21%	13%	64%	11%	7%	80%
Boston	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Capital Region	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

* Note: Baseline Cincinnati/Louisville response options were no confidence (classified as disagree), a small amount of confidence (classified as neutral), or a moderate amount or great deal of confidence (classified as agree).

TABLE 9J: Cardiac Patients' Knowledge of their Cardiovascular Disease and How to Manage It												
Market	Blood Pressure			Long-Term Complic.			Exercise			Cholesterol		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE												
Indiana												
Cincinnati/Louisville												
Boston												
Capital Region	6%	4%	89%	5%	4%	90%	24%	22%	54%	6%	5%	88%

Tables 9K and 9L report on diabetic and cardiac patients' perceptions of the diabetes or cardiac care they receive from their primary healthcare provider, as well as whether they would be motivated by incentives to better manage their own condition. The majority of patients agreed that their physician provided appropriate care of their condition (i.e., according to established guidelines, by helping patients monitor their condition and set goals). Only about half of patients felt that financial incentives would be motivating to them in helping to manage their own condition.

TABLE 9K: Diabetic Patients' Perceptions of their Diabetes Care															
Market	Incentives Motivating			Doctor Sets Goals			Doctor Shows Monitor.			Guidelines Exist			Doctor Follows Guide.		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE															
Indiana	17%	30%	49%	13%	12%	73%	8%	6%	86%	5%	5%	87%	6%	11%	81%
Cincinnati/Louisville	18%	17%	60%	20%	3%	72%	14%	3%	80%	7%	14%	75%	6%	12%	78%
Boston	16%	30%	52%	16%	12%	71%	6%	7%	86%	4%	5%	91%	5%	10%	84%
Capital Region	20%	26%	51%	16%	14%	68%	11%	6%	81%	5%	5%	89%	3%	13%	82%
FOLLOW-UP															
Indiana	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cincinnati/Louisville				20%	17%	62%	11%	8%	79%	8%	5%	86%	5%	13%	81%
Boston	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Capital Region	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

* Note: Baseline Cincinnati/Louisville response options were disagree or strongly disagree (classified as disagree), don't know (classified as neutral), or agree or strongly agree (classified as agree).

TABLE 9L: Cardiac Patients' Perceptions of their Cardiac Care															
Market	Incentives Motivating			Doctor Sets Goals			Doctor Shows Monitor.			Guidelines Exist			Doctor Follows Guide.		
	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr	DisAgr	Ntrl	Agr
BASELINE															
Indiana															
Cincinnati/Louisville															
Boston															
Capital Region	20%	26%	51%	16%	14%	68%	11%	6%	81%	5%	5%	89%	3%	13%	82%

Table 10 provides self-reported HbA1c levels for diabetic patients participating in the consumer Diabetes CareRewards program as a function of whether they are receiving care by a DPRP-recognized physician or by a non-recognized diabetes care provider. <<TBD when sufficient HbA1c follow-up data is available.>>

RQ4B: Is there a difference in average healthcare costs as a result of improved healthcare behaviors?

This research question focused on whether there were differences in healthcare costs as a function of differences in physicians' healthcare behaviors (i.e., do the higher performing physicians ultimately result in lower patient medical costs). This question was addressed through an analysis of standardized healthcare costs for those BTE rewards-eligible physicians who had obtained diabetes provider (DPRP) performance recognition vs. those eligible physicians who have not obtained recognition. Separate comparisons were made for primary care physicians (PCPs) and for endocrinologists.

Tables 11A and 11B present the average costs per diabetic episode for recognized vs. non-recognized PCPs and endocrinologists. When including inpatient costs, recognized endocrinologists exhibited significantly lower average cost per episode (M = \$769) than did non-recognized endocrinologists (M = \$1,140). In contrast, there was no cost difference for PCPs. When limited only to outpatient costs, there was no difference as function of diabetes provider recognition for either endocrinologists or PCPs.

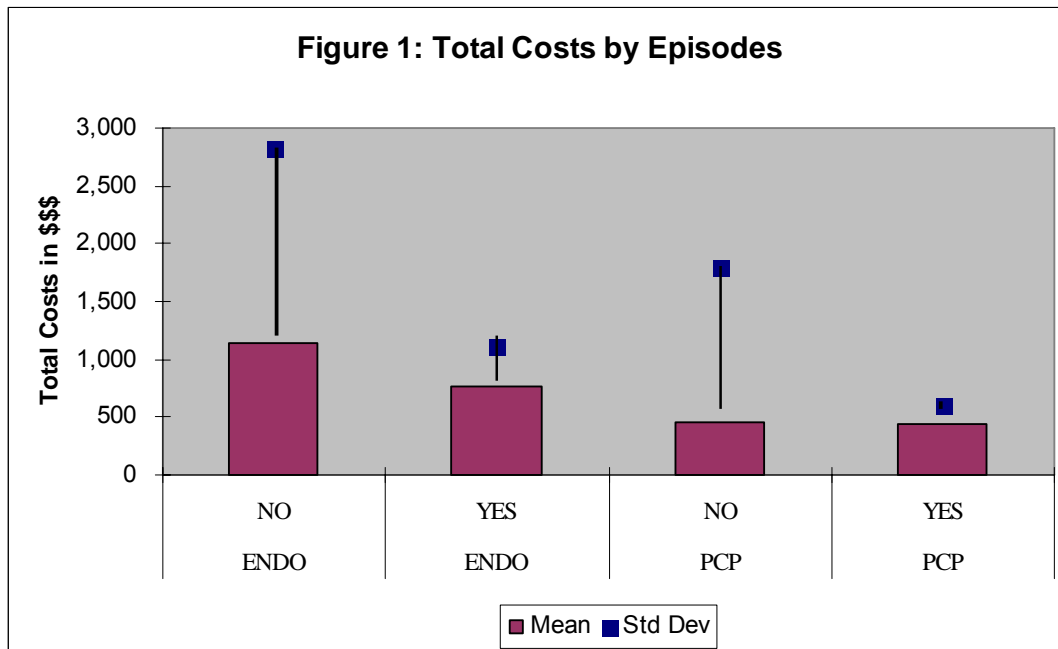
TABLE 11A: Average Costs Per Diabetic Episode, by Physician Specialty and Recognition (Includes Inpatient Costs)					
Specialty	Diabetes Recognition	No. of Episodes	Average Cost Per Episode	Costs/Episode Standard Deviation	p-level
ENDO	YES	627	\$ 769	\$ 1,115	0.0018
ENDO	NO	653	\$ 1,140	\$ 2,814	
PCP	YES	601	\$ 433	\$ 601	n.s.
PCP	NO	8,077	\$ 451	\$ 1,790	

* n.s. = non-significant

TABLE 11B: Average Costs Per Diabetic Episode, by Physician Specialty and Recognition (Excludes Inpatient Costs)					
Specialty	Diabetes Recognition	No. of Episodes	Average Cost Per Episode	Costs/Episode Standard Deviation	p-level
ENDO	YES	628	\$ 703	\$ 720	n.s.
ENDO	NO	610	\$ 605	\$ 598	
PCP	YES	605	\$ 408	\$ 371	n.s.
PCP	NO	7,977	\$ 365	\$ 396	

* n.s. = non-significant

Figure 1 depicts the mean and standard deviation of average costs (including inpatient costs) by physician specialty and diabetes recognition status. For both endocrinologists and PCPs, the variation in costs per diabetic episode are substantially less for recognized diabetes care physicians than for non-recognized physicians.



IV. DISCUSSION

A. Research Questions

The purpose of this evaluation effort was to empirically examine the assumed healthcare rewards-outcomes causal chain underlying the Bridges to Excellence program:



In order to evaluate the impact of the Bridges to Excellence initiative and test the assumed causal model underlying the program, a series of Research Questions were developed to assess physician and consumer engagement in the BTE programs and whether participation results in improved care management and reduced healthcare costs.

Research Question 1: Do the BTE programs engage physicians?

Overall, this study revealed a significant increase in physician participation in the various BTE programs in its first two years of implementation. The rate of physician participation in NCQA's performance recognition programs was noticeably higher in the pilot markets where BTE program rewards were offered compared with national uptake rates in non-BTE markets.

Initial assessment in the BTE markets revealed that physician awareness of the NCQA performance recognition programs was low. Although limited follow-up data is currently available, results suggest that general program awareness is increasing over time. The significant increase in physician participation observed in the pilot markets may be largely attributed to the very targeted recruitment efforts that occurred in these markets. Each BTE market is led by a Regional Steering Committee, consisting of the local BTE participating employers (Project Participants), health plans, and large provider organizations. This team focuses targeted outreach efforts on high-volume physicians in the market.

In each market there is a typical pattern of participation following initial roll-out. There is an initial surge of participation associated with rewarding of those physicians and practices that had previously obtained NCQA performance recognition prior to the launch of the BTE reward programs. Subsequently, program participation appears to drop for the next three to six months as newly participating physicians work through the process of collecting and submitting their performance data to NCQA and obtaining performance recognition. Spikes in participation have also been observed following heavy outreach efforts by the Regional Steering Committees.

There are noticeable differences in physician participation across the pilot markets. The more fragmented Louisville market had a relatively low uptake rate for DPRP vs. the Cincinnati or Boston markets, where providers were more organized and dominated by larger groups. This difference can be attributed to two causes: 1) the potential BTE reward available to a solo practitioner in Louisville was much smaller than the potential reward available to a group practice in Cincinnati or Boston; 2) the solo practitioner did not have adequate administrative resources to collect the necessary clinical data and complete the NCQA application required for performance recognition, whereas the larger, organized groups had greater resources at their disposal for this effort. A similar difference between large and small physician organizations was observed in Boston for the PPC program, where the larger provider organizations appeared more capable of meeting the clinical system investment requirements (and also typically had higher BTE reward availability) than did the smaller practices. Indeed, in the market-wide physician surveys, the majority of physicians indicated that they would be motivated to invest in a clinical information

system if they were compensated for the expense to do so. For the larger practices, the high BTE reward (upward of \$100,000 for some practices) may have been viewed as such compensation.

Further evidence supporting the idea that the BTE reward itself was a significant motivator for physicians to demonstrate high quality care was observed among those physicians that participated in the program vs. those that did not. Among BTE eligible physicians, those with higher reward potential were more likely to participate in BTE than were those physicians with lower reward potential. Specifically, physicians who have pursued and achieved performance recognition have larger reward-eligible patient counts than those physicians who have not. This may have occurred because the size of the reward itself was a critical motivator for physicians to participate. An alternative explanation could be that BTE's targeted outreach and recruitment efforts to those physicians with the highest reward potential was successful. From the employers' perspective, the greatest benefit (in terms of healthier patients and reduced healthcare costs) would be seen among those physicians who are treating the largest numbers of the employers' patients.

As more physicians become aware of and participate in the BTE programs, the overall quality of healthcare provided to patients in the BTE program areas should improve. Certainly, for those physicians who are directly participating in BTE, their receipt of NCQA recognition is an explicit demonstration that they provide the high level of care needed. Because the pilot program is still in progress, follow-up information regarding healthcare behaviors in the BTE markets is still being collected. Additionally, for PPC, practices have not yet had the opportunity to demonstrate continued improvement in their office practice systems, so we cannot yet make any conclusive statements regarding global changes in healthcare improvement.

Research Question 2: Do the BTE programs engage patients?

Patients could be impacted by the BTE programs in two ways: 1) by receiving treatment from physicians participating in BTE (i.e., who have obtained NCQA performance recognition), and 2) by directly participating in the Diabetes CareRewards (DCR) program.

First, a substantial increase was observed over the course of the pilot program in the number of BTE Project Participants' covered lives who were obtaining service from BTE physicians (recognized providers). This increase could be due to two factors: 1) more physicians obtaining performance recognition, so patients who were already seeing those physicians now benefit from the physicians' demonstrated high quality of care, and 2) patients switching from non-recognized physicians to recognized physicians. We expect in this early stage of the program that the increase in patients seeing recognized physicians is predominantly due to the large increases observed in the number of participating physicians. In one of the BTE pilot markets, Louisville, employers initiated a pilot program in 2005 to encourage patients to switch from non- DPRP recognized to DPRP recognized physicians. Results are not yet available on the impact of this pilot effort in motivating patients to switch to recognized physicians.

Second, patient participation in the diabetes self-management program, Diabetes CareRewards (DCR), was relatively low throughout its first year of implementation. Results from the market-wide diabetic patient survey suggest that part of the reason for the low uptake of the DCR program may be that diabetic patients are not interested in a care management program through the internet. This may be in part due to the fact that diabetic patients tend to be older individuals, who are less likely to own computers and extensively use the internet.

Research Question 3: What market factors were related to successful implementation of BTE?

Four major factors were observed during this pilot implementation: 1) initial physician skepticism about the program, 2) limited physician resources available to obtain recognition, 3) physician organization differences impacting ability to participate, and 4) the nature of BTE's program rules.

Many physicians were initially skeptical about the legitimacy of the BTE program when it launched in their markets. Many physicians adopted a "wait-and-see" attitude to assure that BTE was a legitimate program and that rewards would actually be paid to physicians in their market. One of the most critical actions taken by BTE to quickly address this initial concern was to immediately reward all physicians in the markets who had already obtained NCQA performance recognition prior to BTE program implementation. Although these rewards did not benefit the employers, since the physicians had already obtained recognition without the motivation of incentives, these rewards served as an important program investment to demonstrate the legitimacy of the BTE program to other physicians. BTE promoted these initial reward presentations through media announcements about the program.

The burden of data collection was also identified as a barrier to physician participation. Many physicians expressed an inability or unwillingness to dedicate adequate resources to abstract the necessary clinical information from their patient medical charts and complete the NCQA performance recognition application. Many physicians indicated their general interest or willingness to participate in BTE, but did not feel they had sufficient office staff time to devote to the performance recognition process. Indeed, the NCQA application process can take anywhere from several hours to several days of time for a physician to complete. In order to address this concern in the Cincinnati and Louisville markets, BTE obtained grant funding and provided free abstraction services to physicians interested in participating. BTE has been able to enroll a number of additional physicians in the program entirely because these free abstraction services were available.

The size of a physician's practice also has an impact on their participation. Larger, more organized groups of physicians have had greater success at participating in BTE than have smaller practices or solo practitioners. This difference exists for two primary reasons.

The first is that larger physician groups have greater resources at their disposal to collect the necessary clinical data and complete the paperwork required to obtain performance recognition. In very small practices or with solo practitioners, only a part-time office assistant may be available to devote to this type of activity. Physicians often cannot spare their limited resources for the necessary hours or days that may be required to abstract patient data and complete the NCQA application. In contrast, in larger practices, several full-time office staff may be available to allow sufficient resources to complete the application process. Moreover, in Boston and the Capital Region, many of the practices are collectively part of much larger integrated physician associations, and staff at the IPA itself has taken the lead in helping the individual office practices complete their applications.

The second reason is related to the size of the reward potential available through BTE. The sizes of BTE rewards are directly proportional to the number of BTE Project Participants' covered lives being treated by each physician. For an individual physician in solo practice, this may translate to a relatively modest financial reward of \$500 or \$1,000. In contrast, for a larger group practice with 50-100 physicians, the reward could be in the tens of thousands of dollars, or even more. Therefore, the financial incentive to participate in BTE is much greater for the larger groups of physicians.

The final key barrier to participation that was identified involved the BTE program rules. BTE's operational rules were generally seen as too complex and difficult to understand (e.g., only partial POL rewards were paid if a practice had any physicians with at least 5 or more DCL-eligible

and/or CCL-eligible patients until those physicians obtained diabetes and/or cardiac care provider recognition when the balance of POL rewards would be paid). Additionally, in several of the pilot markets, the rules used to determine reward-eligibility and calculate rewards were changed after the launch of BTE, which met with negative feedback by physicians and practices in those markets.

Research Question 4: Does participation in the BTE programs result in healthier patients and reduced healthcare costs?

Because the pilot program is still in progress, follow-up information regarding patients' health status in the BTE markets is still being collected. Overall, diabetic and cardiac patients are in fair to good health and visit their physician between one and five times per year. Most patients are very compliant with taking their required medications and having required tests performed, but are far less compliant with diet, weight, and exercise guidelines.

An analysis of healthcare costs for diabetic patients seeing recognized vs. non-recognized diabetes care providers revealed that the total healthcare costs, including both inpatient and outpatient costs, per diabetic episode were lower for patients who saw DPRP recognized endocrinologists than for those who saw non-DPRP recognized endocrinologists. In contrast, when excluding inpatient costs, the recognized endocrinologists showed higher costs per diabetic episode than did the non-recognized endocrinologists, though not significantly so. A similar pattern was observed for the PCPs, where recognized physicians showed lower total inpatient and outpatient costs than non-recognized physicians but higher outpatient only costs.

These findings suggest that the recognized physicians are spending more money on average for outpatient services than non-recognized physicians, but that this cost savings is more than offset by the reduced inpatient costs. Presumably, the recognized physicians are providing a higher level of ongoing care (e.g., regular testing, etc.) for their diabetic patients, thereby decreasing the likelihood of complications and more significant illnesses that result in hospitalization and costly inpatient care.

B. Lessons Learned & Best Practices

Throughout the first two years of this 3-year pilot program, several lessons learned and best practices can be identified for the ongoing successful implementation of the program.

Initial Spike Followed by Slow-Down in Physician Participation Post-Launch

All of the markets experienced a slow-down following an initial peak in physician participation. The initial participation spike was due either to physicians who already had performance recognition prior to the launch of BTE or to early adopters who had already implemented the necessary process improvements prior to BTE's launch and were in the process of obtaining performance recognition. Indeed, it is likely that the physicians who found it easiest to meet the performance requirements were the first to obtain recognition. This initial surge was then followed by a quick downslide in participation rates over the next three to six months, before participation again resumed.

The lull in participation following initial program launch may be due in part to the fact that initially physicians are only just learning about the program and its requirements. Those physicians who believe they may already meet the requirements then need to go through the work to apply to NCQA and obtain performance recognition, a process which can take at least several months. For those physicians who do not already meet the performance requirements, it can take many months or years for them to change their practice patterns and implement system improvements that would allow them to demonstrate that they meet the performance standards. A participation lull should therefore be expected following initial program launch.

Importance of Physician Outreach Efforts

Physician recruitment and outreach efforts were found to have a significant impact on the likelihood of physicians' participation in the program. Upon initial launch in a market, the Regional Steering Committee would actively announce the BTE program to eligible physicians in a targeted mailing, and announce the program in local media outlets. Subsequently, relatively little outreach activity occurred and participation waned.

As the program progressed, the Regional Steering Committees became more involved in the recruitment of physicians by engaging in aggressive follow-up campaigns, frequently calling or visiting the physician. Often, a member of a Committee worked closely with a physician until the physician had obtained performance recognition. In one market (Cincinnati), a local Quality Improvement Organization (QIO) was used to help promote BTE during regular office visits. This avenue resulted in a number of physicians becoming interested in the program, and they were later contacted for more intensive follow-up by a member of the Regional Steering Committee.

In both the Boston and NY Capital Region markets where there was a significant physician presence through two or three large medical groups or IPAs, the program included representatives from the group/IPA on the Regional Steering Committee. These representatives worked closely with BTE from very early on in the program, in some cases actually helping to define the program rules. The buy-in of these physician organization leaders was critical, as they played a lead role in promoting the BTE program to the large number of physicians and practices in their group. In fact, in the Boston and NY Capital Region markets, the vast majority of recognized physicians are part of these few large groups.

Other recruitment efforts included a three-piece back-to-back targeted mailing to eligible physicians in the NY Capital Region. Immediately following the mailing, a spike of interest was observed in physicians calling to inquire about the BTE program. Similarly, BTE produces and distributes a periodic program newsletter to eligible physicians, again with the intent to promote the program and generate interest in participation. Physician inquiries are observed to increase following dissemination of the newsletter. Finally, periodic media stories are run in the BTE markets, such as when reward checks are first distributed to physicians.

Overall, the most successful route for recruitment has been the direct and continued follow-up of local BTE Regional Steering Committee members who are able to work one-on-one with a physician or practice and shuttle them through the recognition process. Often these Committee members are representatives from the physicians' medical group or IPA, but this method also proved highly effective when other members of the Committee, such as employer representatives, served as the physician's liaison with the BTE program. Although this method is the most labor-intensive and time-consuming, the success rate for obtaining physician participation has been the highest with this approach.

Maintaining a Consistent Message

The importance of maintaining a consistent message to physicians was observed in several areas. Physicians frequently had contact with various members of the BTE team, including the Regional Steering Committee (for recruitment and general questions), Medstat (for reward questions), and NCQA (for performance recognition questions), as well as other resources such as the BTE web site. Having multiple sources of information about the BTE program created some confusion for the physicians, especially when not all sources were necessarily communicating the same information (e.g., when the current BTE reward rules were not posted on the BTE web site, or when a Regional Committee member communicated an out-dated patient count to a practice). Such a large infrastructure can create confusion and error, and may be difficult for physicians to navigate. In some cases, physicians would develop a relationship with one BTE party (e.g., a BTE representative from Medstat) and request that that party be present

during contact with other BTE parties (e.g., NCQA during performance recognition discussions). This suggests again that physicians feel most comfortable having one person to work closely with who can shepherd them through the entire BTE process.

The importance of delivering a consistent message to physicians also was observed when BTE changed certain program rules mid-way through the pilot implementation in Boston. In order to test a more streamlined and cost-effective methodology for administering rewards, BTE changed four critical aspects of reward administration rules during or at the conclusion of the first pilot year in Boston: 1) reducing the eligible per-patient reward amount, 2) restricting the list of eligible physician specialties, 3) adding a conditional requirement to obtain the reward, and 4) implementing a new patient attribution methodology that reduced the number of patients per physician. Although all four changes were positive refinements to the program's reward methodology, these changes all were met with significant negative push-back by the physicians, since all changes were more restrictive and resulted in less available rewards. Practices felt that it was unfair for the program to change the rules mid-stream and expressed significant dissatisfaction with the changes. In contrast, when the Capital Region program launched, the new reward rules were established from the outset of the program, and there was no noticeable concern voiced by physicians about these rules.

Keep It Simple and Easy

Finally, in both of the fundamental components of the BTE program, performance recognition and reward payment, it was clear that keeping the process simple and easy is critical to broad success of this type of pay-for-performance program.

In an effort to develop a program that would motivate and encourage physicians to first put in place office systems that are critical to improving patient care and to then use these systems in part to assure they are meeting clinical practice guidelines in providing care to their patients with chronic conditions, BTE established a conditional reward structure. This structure, however, proved difficult for physicians and practices to clearly understand and remember, particularly when the reward check came many months after they were initially introduced to the BTE program rules.

The NCQA performance recognition process was also identified by physicians and practices as being difficult, cumbersome, and time-consuming. Some practices did not fully understand what types of materials they needed to submit in their applications. Many practices cited resource issues as a key deterrent to the program, and BTE actually worked to make available staff to assist some physicians and practices in completing their NCQA applications. As such, P4P programs can benefit by keeping the performance recognition process that physicians and practices must undertake as brief and straightforward as possible, minimizing the amount of resources that the physicians themselves have to devote to the process.

V. CONCLUSIONS & FUTURE DIRECTIONS

At the conclusion of the first two years of the initial 3-year BTE pilot program, several overall observations can be made.

First, BTE rewards are motivating to physicians to change their practice patterns and demonstrate high levels of performance. Initial engagement of physicians can be challenging, but one-on-one attention and guidance through the process facilitates participation. Establishing initial credibility of the program is important to gain physician buy-in.

Second, while financial incentives are a motivator, other barriers may impede physician participation. In particular, the time and cost involved for physicians to implement specific practice improvements and to complete the performance recognition application process may prevent participation. If financial rewards are large enough and/or if financial or resource assistance is provided to help physicians, these barriers can be overcome.

Third, preliminary findings confirm published research that patients who are treated by high-performing physicians do have lower medical costs than patients treated by other physicians. Although it is too early in the pilot to draw conclusions regarding changes in patient healthcare behaviors, it can be presumed that this is a necessary precursor to the observed difference in patients' medical costs among providers who offer different standards of care.

Future Directions

Two final observations can be made regarding future directions for the BTE program.

First, BTE should continue to evaluate the use of health plan claims data as the basis for determining physician rewards eligibility. BTE's intent is to reward physicians based specifically on the number of patients they treat from each Project Participant, since it is the participating employers who are putting forth the funds for rewards. In order to ensure a well-defined return-on-investment for employers, rewards must be proportional to the Project Participants' own covered lives that are impacted by the program. However, significant data integrity issues exist with the health plan data. Physicians do not always clearly identify themselves as the servicing provider when submitting claims to their plans. For example, all physicians in a practice may submit claims under a single physician's name. Additionally, health plans do not always maintain data in such a way to be able to readily identify the servicing physician. Indeed, in some cases, plans are only concerned about the presence of a Tax Identification Number (TIN) on a claim, in order to be able to appropriately bill for services. In these instances, the actual physician who provided service can be buried under a TIN for a practice or IPA.

Both participating employers and physicians are familiar with the data integrity issues associated with the health plan claims data. For both parties, the validity of the patient counts obtained from the health plan data is a critical determinant of program integrity, and perceived lack of data integrity can cause market-wide tension for the program. Pay-for-performance programs such as BTE that rely on health plan claims data may encourage open dialogue between health plans and their employer customers and physicians, and may serve as the catalyst to improve the documentation of medical visits. Alternatively, other approaches to providing rewards to physicians can be considered, such as reimbursement strategies based on a fixed percentage-increase in physicians' overall compensation. Such a strategy may have greater viability if BTE moves to an operational model that is directly funded by health plans rather than employers.

Second, a common concern of physicians regarding pay-for-performance programs is their need to account for variability in illness severity and complexity. Physicians are concerned that performance assessment in P4P programs does not recognize that physicians who treat the most severely ill patients may have worse performance scores simply due to the initial health status of

their patients rather than the treatment they provide. BTE currently offers a methodologically sound risk-adjustment method for both its chronic condition programs, DCL and CCL. Physicians can, at their own option, provide additional data regarding their diabetic or cardiac patient panels, and these data will be scored and will be used to adjust their NCQA performance recognition data to account for the severity level of their patients' conditions. In the first two program pilot years, no physician has utilized this risk-adjustment option.

Several possible explanations may exist for physician non-use of the BTE risk-adjustment method: 1) physicians may simply find that the time and effort required to abstract and submit additional data for scoring is too cumbersome; 2) physicians applying to the BTE programs may simply feel that they can meet NCQA's performance recognition standards without the need to risk-adjust their data; or, 3) physicians may simply not be aware of the availability of the risk-adjustment option, which has not been heavily promoted by BTE. Whatever the explanation, BTE certainly may need to consider whether a risk-adjustment option is necessary for the program in the long-term, despite the frequency with which physicians generally reference it as a critical component of pay-for-performance programs.

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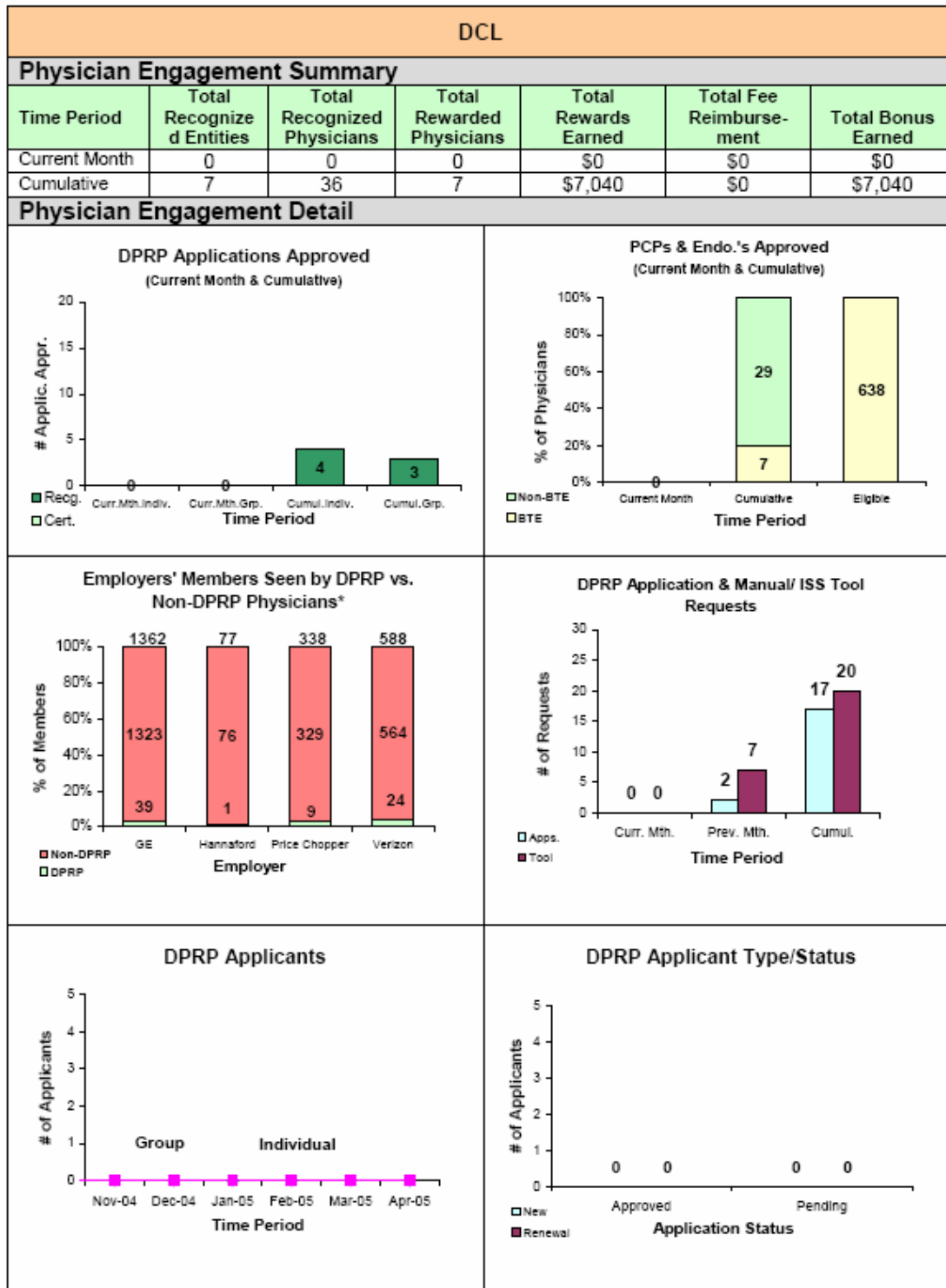
APPENDIX B: PROGRAM PARTICIPATION METRICS (SAMPLE)

Research Question 1	<p>Do the BTE programs engage physicians?</p> <p>A. Did physician/market awareness about the program increase over time?</p> <p>B. Did physician participation in BTE increase over time?</p> <p>C. What factors and barriers affected physician participation?</p> <p>D. Did physician healthcare behaviors change in the market over time?</p>
Research Question 2	<p>Do the BTE programs engage patients?</p> <p>A. Did the number/percent of patients seeing recognized physicians increase over time?</p> <p>B. Did patient participation in the consumer rewards program increase over time?</p>
Research Question 3	<p>What market factors were related to successful implementation of BTE?</p> <p>A. Are there any factors that affected program success differentially in the BTE pilot markets?</p> <p>B. What barriers were encountered in implementing the program?</p>
Research Question 4	<p>Does participation in the BTE programs result in healthier patients and reduced healthcare costs?</p> <p>A. Did patient healthcare behaviors and outcomes change in the market over time?</p> <p>B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?</p>

METRIC REPORTS-MONTHLY & QUARTERLY PROGRESS REPORTS					
Research Question		Section			
		Physician Engagement	Consumer Engagement	Program Implementation	Reward Implementation
I	A				
	B	X			
	C				
	D	X			
II	A	X			
	B		X		
III	A				
	B				
IV	A		X		
	B				



NY Capital Region Monthly Report APRIL 2005



*Note: A diabetic member is counted only once regardless of how many DPRP recognized physicians were seen.





NY Capital Region Monthly Report APRIL 2005

DCL (Diabetes CareRewards)		
Consumer Engagement Summary		
Registrants Matched to Eligible Population*		
Time Period	GE	Total
Current Month	1	1
Cumulative	15	15

*Note: This represents partial data – additional registrants who do not match up to the eligibility file are not included in the total number.

Consumer Engagement Detail	
<p><u>Patient Activation Stages</u></p> <p><u>Stage 1:</u> Believes patient role important (18.3% national avg.) <u>Stage 3:</u> Taking action (8.5% national avg.)</p> <p><u>Stage 2:</u> Confidence and knowledge to take action (32.7% national avg.) <u>Stage 4:</u> Staying the course (40.5% national avg.)</p> <p><u>Connectors to Consumer Web Site</u></p> <div style="display: flex; justify-content: space-between; font-size: x-small;"> <div style="width: 30%;"> <ul style="list-style-type: none"> <input type="checkbox"/> City Risk Management <input type="checkbox"/> Corporate Web Site <input type="checkbox"/> Disability Carrier <input type="checkbox"/> Friend or Family <input type="checkbox"/> HR Rep/Manager <input type="checkbox"/> Union Representative </div> <div style="width: 30%;"> <ul style="list-style-type: none"> <input type="checkbox"/> Company Doctor/Nurse <input type="checkbox"/> Co-worker <input type="checkbox"/> E-mail <input type="checkbox"/> Health Plan <input type="checkbox"/> Newspaper article or advertisement </div> <div style="width: 30%;"> <ul style="list-style-type: none"> <input type="checkbox"/> Corporate Newsletter <input type="checkbox"/> Diabetic Advisor <input type="checkbox"/> Employee Health <input type="checkbox"/> Home Mailing <input type="checkbox"/> Paycheck Stuffer </div> </div>	
<p style="text-align: center;">Effectiveness of Connectors Capital Region (Cumulative)</p> <p style="text-align: center; font-size: x-small;"># of Patients vs Patient Activation Stage</p>	<p style="text-align: center;">Effectiveness of Connectors Capital Region (GE)</p> <p style="text-align: center; font-size: x-small;"># of Patients vs Patient Activation Stage</p>





NY Capital Region Monthly Report APRIL 2005

Program Implementation							
NCQA Processing							
NCQA Data Feed-to-Medstat Time Goal: 24 th of Month				NCQA Application Processing Time Goal: ≤ 28 Days			
Metric	POL (PPC)	DCL (DPRP)	CCL (HSRP)	Metric	POL (PPC)	DCL (DPRP)	CCL (HSRP)
Current Month (receipt date)	21	21	21	Current Month (process days)	7	n/a	n/a
Cumul. Avg. (receipt date)	24.2	25.4	23.5	Cumul. Avg. (process days)	16.6	23.3	n/a
Percent (%) on Time Receipt	77%	69%	85%	Percent (%) on Time	80%	67%	n/a

3-Year Pilot Program Timetable			
Activity	Year 1 2004	Year 2 2005	Year 3 2006
Launch/Market Refresh Date	4/30/04	4/15/05	12/11/05
Last Application Complete Date	4/14/05	12/10/05	7/24/06
Last NCQA Recognition Date	6/24/05	2/10/06	9/24/06
Last Employer Invoice Date	7/8/05	4/8/06	10/8/06
Last Reward Check Sent Date	8/15/05	5/15/06	11/15/06

Physician Reward Schedule		
Quarter	Month Physician Receives NCQA Recognition*	Month Reward Payment Sent to Physician**
Q1	Jan, Feb, Mar	May
Q2	Apr, May, Jun	Aug
Q3	Jul, Aug, Sep	Nov
Q4	Oct, Nov, Dec	Feb

* Note: Physicians recognized within approximately the last 5-10 days of each quarter (Mar, Jun, Sep, Dec) fall into the following quarter and will receive rewards according to the subsequent quarter's schedule.

** Note: Rewards are scheduled to be sent the 15th of the reward payment month, assuming that all employer reward payments are submitted to Medstat on time (i.e., within 30 days).



NY Capital Region
DCL Physician Recognition List

Report Month	BTE Recognized Entity & Physicians	Recg Date	Year 1			Year 2			Year 3					
			Pt Cnt	\$ Rwd	\$ Fee	\$ Total	Pt Cnt	\$ Rwd	\$ Fee	\$ Total	Pt Cnt	\$ Rwd	\$ Fee	\$ Total
Sep-04	The Westchester Medical Group Jack Berger Annamaria Calleo-Cross Silvio Ceccarelli Arthur Deangelis Tania Dempsey Bruno Diocosmo James Doyle Todd Friend Richard Gottfried Morrie Kaplan Lawrence Kraftowitz Jay Levat William Martimucci Judi Miller Eliot Moshman Barney Newman Joseph Paglia George Pelecbecky Carroll Rayner Ernest Richards Gary Rothbart Lori Saltzman Bruce Shering Nitya Srinivasan Randy Stein Carolyn Thompson	8/25/04	0	0	0	0								
Apr-04	Division of Endocrinology, Albany Medical College Matthew C. Leinung James Desemone Mary Ellen Ehlers Daniel Lee Mary Luidens Rajinder Jain Gary Kolanchick Jose Galindo, Jr. Robert Grimshaw Joslin--Affiliate at Hudson Valley Hospital Center Jerry I. Kleinbaum	3/24/03	64	5,120	0	5,120								
		1/23/03	17	1,360	0	1,360								
		12/21/02	5	Physician is a PCP; DCL rewards are pending PPC recognition & POL rewards										
		2/27/02	7	560	0	560								
		2/18/02	0	0	0	0								
		10/3/01	0	0	0	0								
			0	0	0	0								

R: Renewal
 Note: Patient count of zero (0) means the physician had no BTE-eligible employer patients (i.e., the physician was not on the BTE Master Physician List (MPL)).
 Note: DCL launched in April 2004. Apr-04 recognitions were prior to launch.
 Note: Prior to June 2004, only individual physicians with 10+ patients or groups with 10+ patients average were eligible for rewards.
 Note: Prior to May 2004, group patient counts were uncupulated rather than summed across the group's physicians.



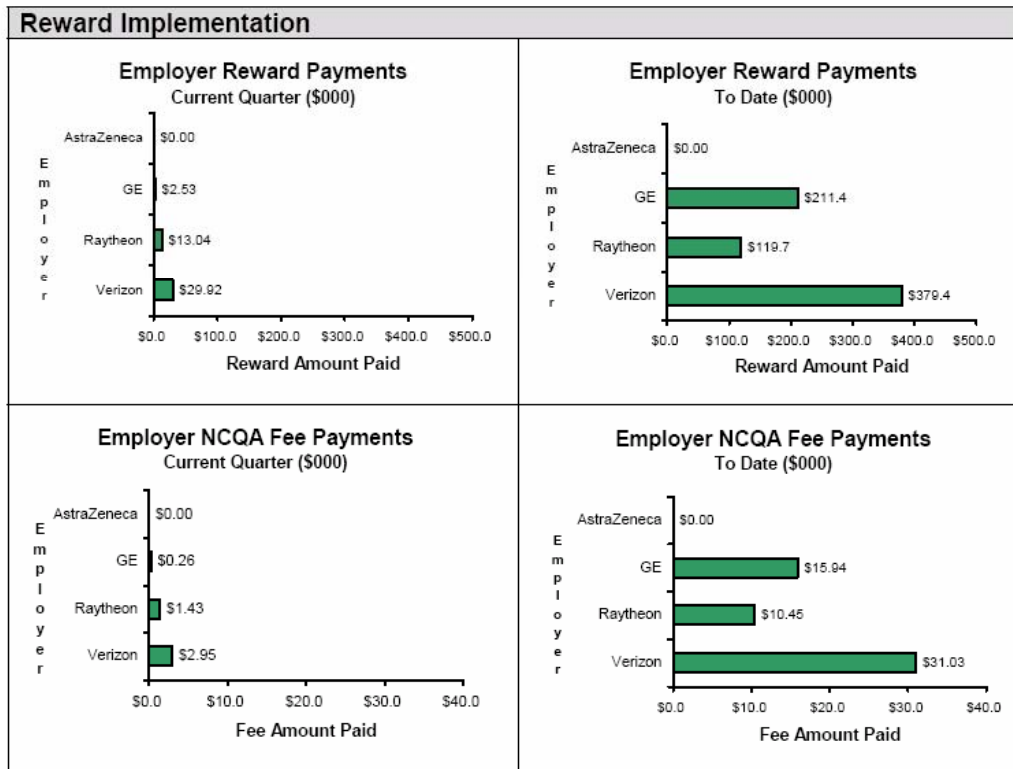


Boston Quarterly Report 1st Quarter 2005

POL						
Reward Payment Summary						
Time Period	Total Recognized Entities	Total Recognized Physicians	Total Rewarded Physicians	Total Rewards Earned**	Total Fee Reimbursement	Total Bonus Earned
Q105 Rewards	13	84	79	\$226,750	\$16,186	\$242,936
Cumulative	51	549	525	\$930,630	\$71,584.53	\$1,002,214.53

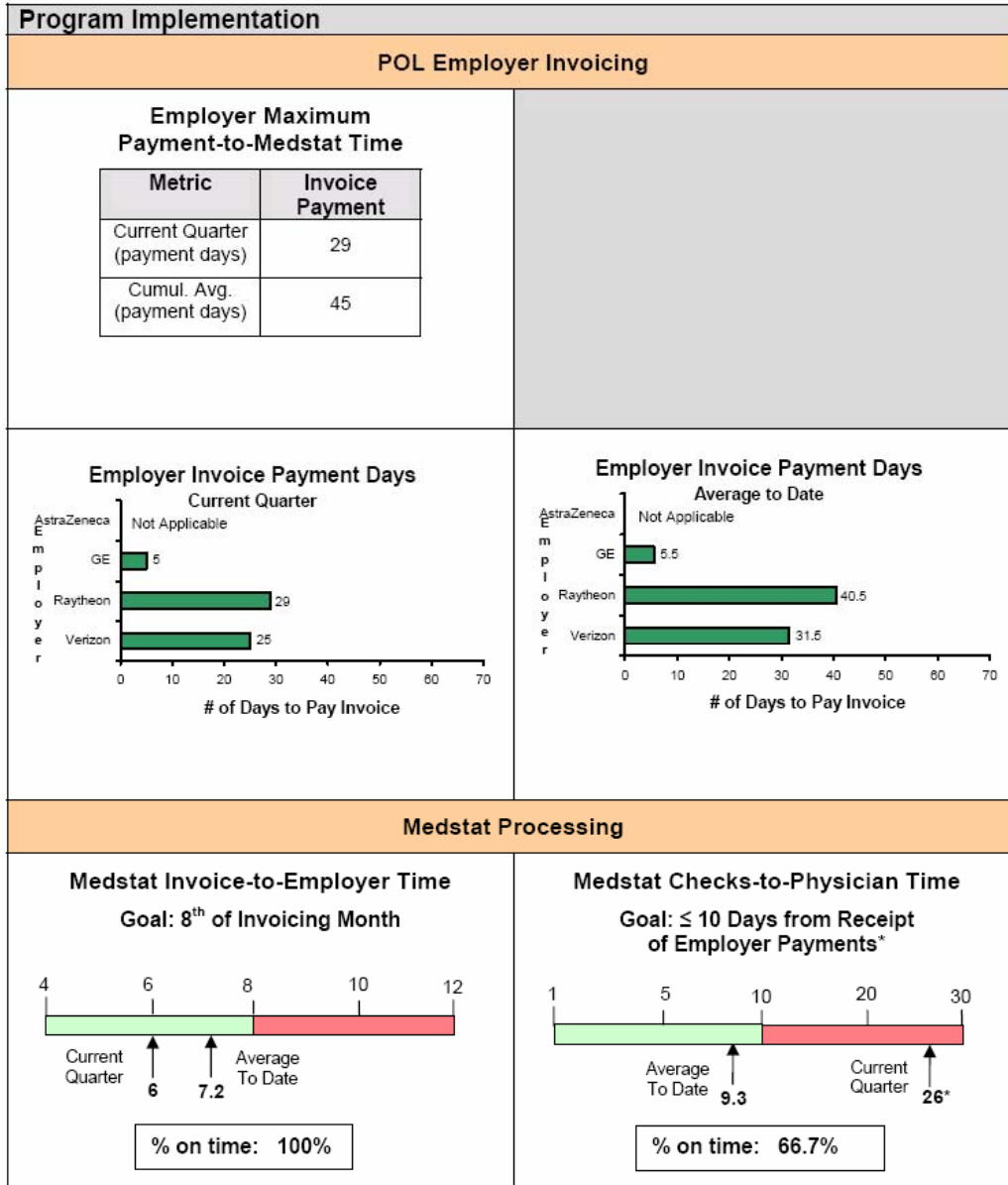
* This report covers employer invoicing and reward payment activity occurring during the Q105 for physicians who obtained NCQA recognition during Q404. Invoicing and reward payment information for Q105 will appear on the Q205 quarterly report.

** Total Rewards Earned includes subsequent years' annual rewards for physicians previously recognized.





Boston Quarterly Report 1st Quarter 2005



Note: All employer reward payment funds sent to Medstat were distributed in the form of reward payments to physicians. There is a zero account balance for all Project Participant BTE accounts.
 *Payment received by 1 employer was erroneously left off of the payment report; therefore, not identified as paid until confirmation was received on 2/23/05 and checks were mailed out on 3/2/05.



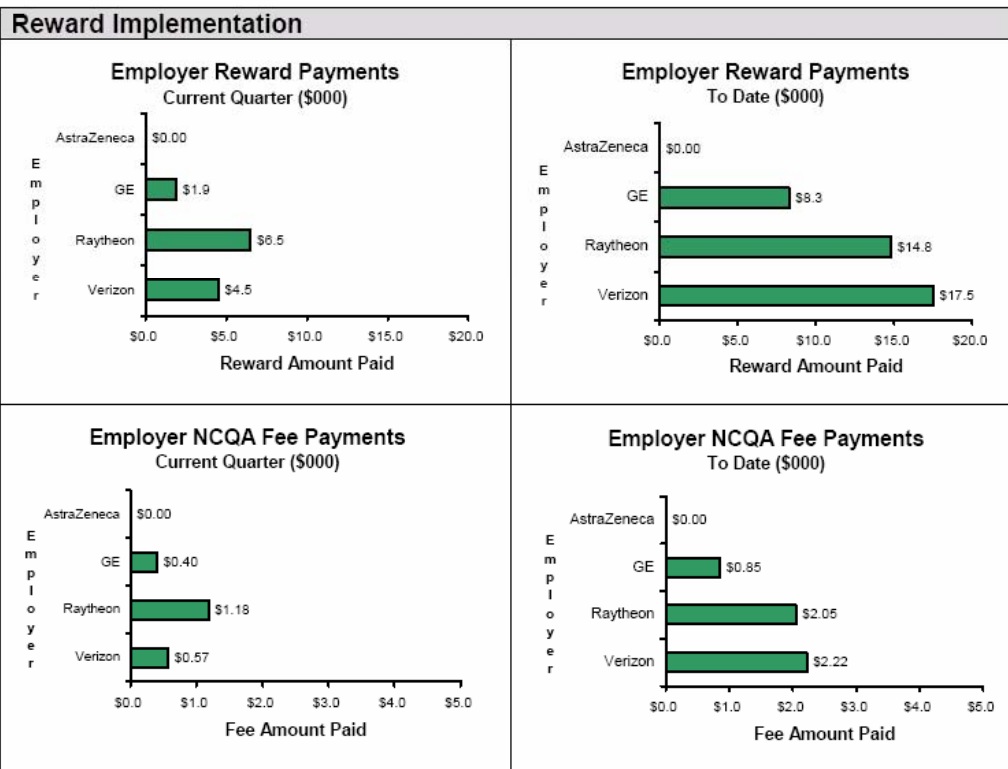


Boston Quarterly Report 1st Quarter 2005

DCL						
Reward Payment Summary						
Time Period	Total Recognized Entities	Total Recognized Physicians	Total Rewarded Physicians	Total Rewards Earned**	Total Fee Reimbursement	Total Bonus Earned
Q105 Rewards	1	6	1	\$4,260	\$0	\$4,260
Cumulative	37	230	95	\$44,868.75	\$5,123.57	\$49,992.32

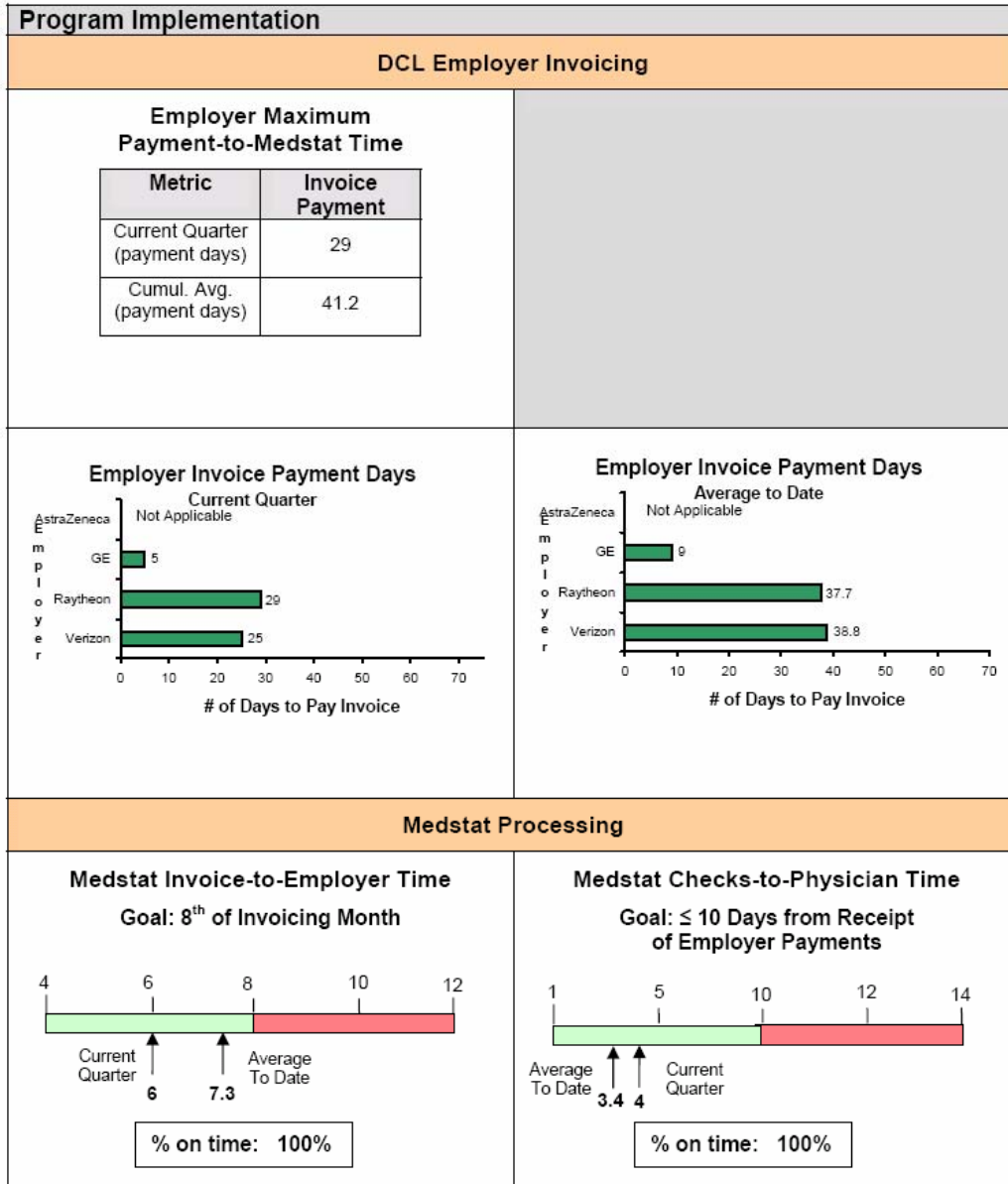
* This report covers employer invoicing and reward payment activity occurring during the Q105 for physicians who obtained NCQA recognition during Q404. Invoicing and reward payment information for Q105 will appear on the Q205 quarterly report.

** Total Rewards Earned includes subsequent years' annual rewards for physicians previously recognized.





Boston Quarterly Report 1st Quarter 2005



Note: All employer reward payment funds sent to Medstat were distributed in the form of reward payments to physicians. There is a zero account balance for all Project Participant BTE accounts.



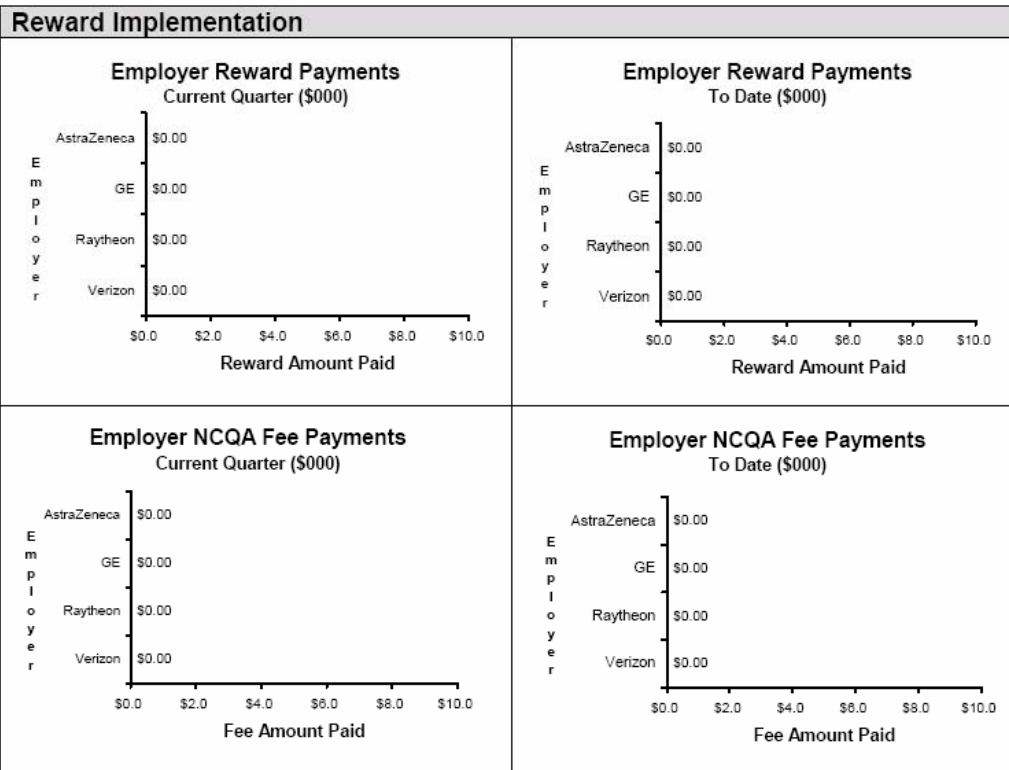


Boston Quarterly Report 1st Quarter 2005

CCL						
Reward Payment Summary						
Time Period	Total Recognized Entities	Total Recognized Physicians	Total Rewarded Physicians	Total Rewards Earned**	Total Fee Reimbursement	Total Bonus Earned
Q105 Rewards	3	29	0	\$0	\$0	\$0
Cumulative	3	29	0	\$0	\$0	\$0

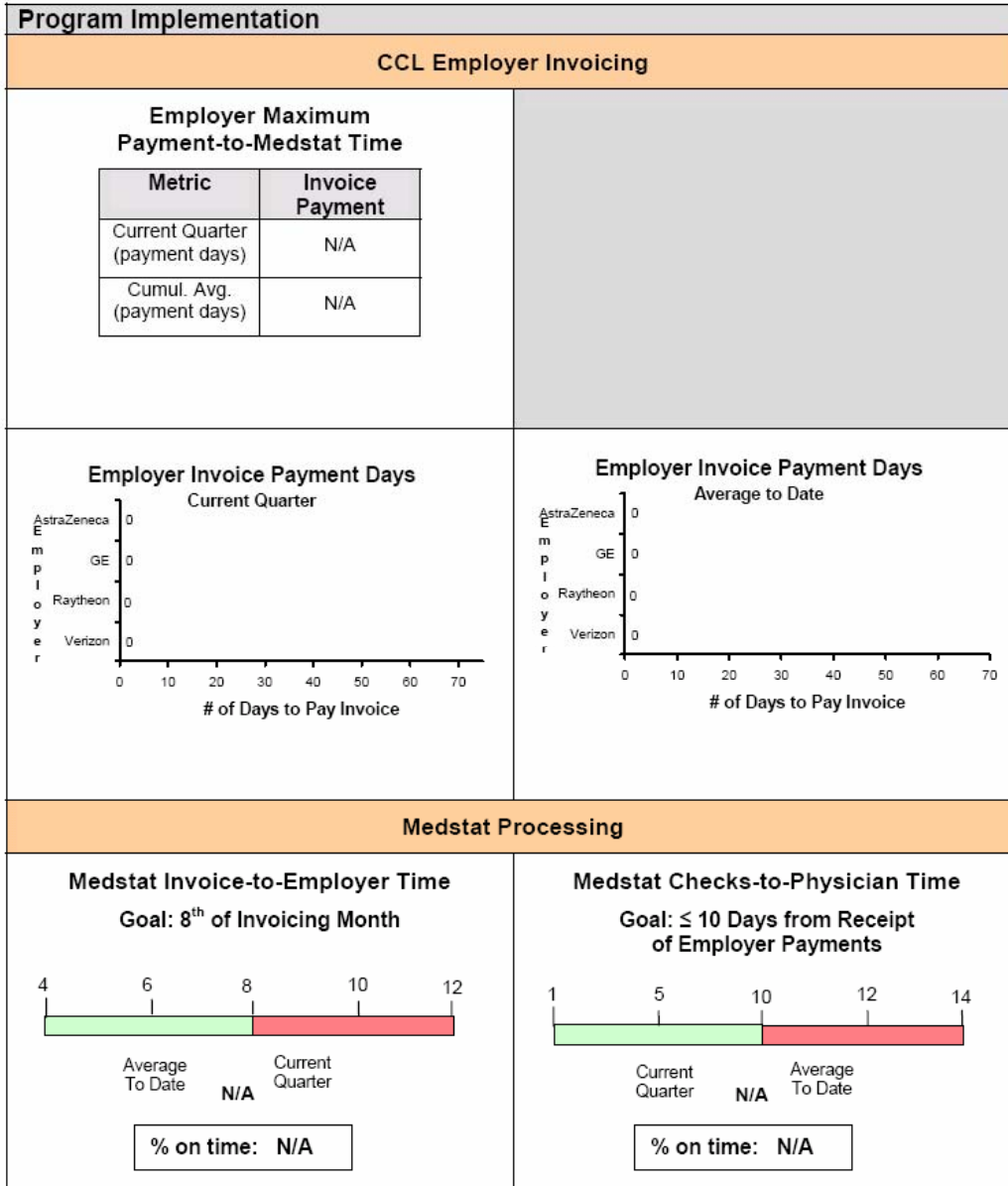
* This report covers employer invoicing and reward payment activity occurring during the Q105 for physicians who obtained NCQA recognition during Q404. Invoicing and reward payment information for Q105 will appear on the Q205 quarterly report.

** Total Rewards Earned includes subsequent years' annual rewards for physicians previously recognized.





Boston Quarterly Report 1st Quarter 2005



APPENDIX C: MARKET-WIDE SURVEYS (PHYSICIAN)

Research Question 1	Do the BTE programs engage physicians? A. Did physician/market awareness about the program increase over time? B. Did physician participation in BTE increase over time? C. What factors and barriers affected physician participation? D. Did physician healthcare behaviors change in the market over time?
Research Question 2	Do the BTE programs engage patients? A. Did the number/percent of patients seeing recognized physicians increase over time? B. Did patient participation in the consumer rewards program increase over time?
Research Question 3	What market factors were related to successful implementation of BTE? A. Are there any factors that affected program success differentially in the BTE pilot markets? B. What barriers were encountered in implementing the program?
Research Question 4	Does participation in the BTE programs result in healthier patients and reduced healthcare costs? A. Did patient healthcare behaviors and outcomes change in the market over time? B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?

PHYSICIAN POL-DCL-CCL SURVEY							
Research Question		Section					
		I. Practice Overview	II. Office Practice Systems			III. Patient Care	
		Practice Site Description	Current Office Practice Systems	Future Office Practice Systems	Quality Improvement Programs	Patient Care	Patient Care Provider Recognition
I	A						X
	B						
	C			X	X		X
	D		X			X	
II	A						
	B						
III	A						
	B						
IV	A						
	B						

Physician Survey Office Practices & Patient Care

Albany/Schenectady, NY Area

This survey is designed to assess two critical areas associated with the quality of patient care: the types of office practice systems currently in use, and the types of care physicians provide for their patients with chronic conditions.

Please answer each of the three sections of this survey:

- Practice Overview
- Office Practice Systems
- Patient Care

SECTION I: PRACTICE OVERVIEW

PRACTICE SITE DESCRIPTION														
Please provide the following information based on your office practice site (the practice location where you spend most of your clinical time).														
Item	Response													
1. How many <u>physicians</u> are at your practice site?	<i>(circle one)</i> 1-5	6-10	11-20	21-30	31 or more									
2. How many <u>years</u> has <u>your practice site</u> been in operation?	<i>(circle one)</i> 1-2	3-5	6-10	11-15	16 or more									
3. What is the average age of physicians at your practice site?	<i>(circle one)</i> 20-29	30-39	40-49	50-59	60+									
4. Are the physicians at your practice site salaried?	<i>(circle one)</i> Yes No													
5. Please indicate the approximate percentage of your practice's patients who are covered by Fee For Service arrangements vs. capitation arrangements.	<i>(mark an "X" on the line)</i> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">0% fee for service</td> <td style="width: 33%; text-align: center;">50% fee for service</td> <td style="width: 33%; text-align: center;">100% fee for service</td> </tr> <tr> <td style="text-align: center;"> ----- </td> <td style="text-align: center;"> ----- </td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td style="text-align: center;">100% capitation</td> <td style="text-align: center;">50% capitation</td> <td style="text-align: center;">0% capitation</td> </tr> </table>					0% fee for service	50% fee for service	100% fee for service	-----	-----	-----	100% capitation	50% capitation	0% capitation
0% fee for service	50% fee for service	100% fee for service												
-----	-----	-----												
100% capitation	50% capitation	0% capitation												
6. How many <u>years</u> have <u>you personally</u> been in practice?	<i>(circle one)</i> 1-2	3-5	6-10	11-15	16 or more									
7. Which of the following best categorizes your own clinical activities?	<i>(check one)</i> <input type="checkbox"/> primary care <input type="checkbox"/> endocrinology <input type="checkbox"/> cardiology/neurology <input type="checkbox"/> other specialty (specify: _____)													

Physician Survey Office Practices & Patient Care

Albany/Schenectady, NY Area

SECTION II: OFFICE PRACTICE SYSTEMS

This section of the survey pertains to the different types of systems that office practices use to ensure they are providing quality care to patients. Please answer all questions with respect to your entire office practice from your own point of view.

CURRENT OFFICE PRACTICE SYSTEMS															
A. Information Management Methods															
Please respond to each of the following items regarding information management methods for monitoring patient care currently in use at your office practice.															
Item	Response														
1. What methods are currently used in your office practice to prevent drug interactions?	<i>(check all that apply)</i> <input type="checkbox"/> physician review of patient medical record when prescribing <input type="checkbox"/> electronic office system that checks for interactions <input type="checkbox"/> rely on pharmacy to check for interactions <input type="checkbox"/> other (specify: _____)														
2. What methods are currently used in your office practice to ensure follow-up on abnormal lab tests?	<i>(check all that apply)</i> <input type="checkbox"/> physicians or office staff follow-up directly with patients <input type="checkbox"/> standard written protocol followed with abnormal tests <input type="checkbox"/> no standard approach to follow-up <input type="checkbox"/> other (specify: _____)														
3. Some office practices maintain searchable patient lists, or patient registries, for patients with certain chronic conditions or for certain at-risk populations. If your office practice currently maintains patient registries, please identify the specific populations for which your practice has a registry.	<i>(check all that apply)</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Do not use patient registries</td> <td style="width: 50%;"><input type="checkbox"/> All diseases searchable</td> </tr> <tr> <td><input type="checkbox"/> Asthma</td> <td><input type="checkbox"/> Congestive heart failure</td> </tr> <tr> <td><input type="checkbox"/> Diabetes</td> <td><input type="checkbox"/> Connective tissue disease</td> </tr> <tr> <td><input type="checkbox"/> HIV/AIDS</td> <td><input type="checkbox"/> Cancer</td> </tr> <tr> <td><input type="checkbox"/> Cardiovascular disease</td> <td><input type="checkbox"/> Morbid obesity</td> </tr> <tr> <td><input type="checkbox"/> Renal disease</td> <td><input type="checkbox"/> Other (specify: _____)</td> </tr> <tr> <td><input type="checkbox"/> Substance abuse (alcohol/drugs)</td> <td></td> </tr> </table>	<input type="checkbox"/> Do not use patient registries	<input type="checkbox"/> All diseases searchable	<input type="checkbox"/> Asthma	<input type="checkbox"/> Congestive heart failure	<input type="checkbox"/> Diabetes	<input type="checkbox"/> Connective tissue disease	<input type="checkbox"/> HIV/AIDS	<input type="checkbox"/> Cancer	<input type="checkbox"/> Cardiovascular disease	<input type="checkbox"/> Morbid obesity	<input type="checkbox"/> Renal disease	<input type="checkbox"/> Other (specify: _____)	<input type="checkbox"/> Substance abuse (alcohol/drugs)	
<input type="checkbox"/> Do not use patient registries	<input type="checkbox"/> All diseases searchable														
<input type="checkbox"/> Asthma	<input type="checkbox"/> Congestive heart failure														
<input type="checkbox"/> Diabetes	<input type="checkbox"/> Connective tissue disease														
<input type="checkbox"/> HIV/AIDS	<input type="checkbox"/> Cancer														
<input type="checkbox"/> Cardiovascular disease	<input type="checkbox"/> Morbid obesity														
<input type="checkbox"/> Renal disease	<input type="checkbox"/> Other (specify: _____)														
<input type="checkbox"/> Substance abuse (alcohol/drugs)															
4. What electronic systems are currently in place at your office practice?	<i>(check all that apply)</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><input type="checkbox"/> lab test ordering</td> <td style="width: 50%;"><input type="checkbox"/> prescription ordering</td> </tr> <tr> <td><input type="checkbox"/> a registry with patient data</td> <td><input type="checkbox"/> electronic medical records</td> </tr> <tr> <td><input type="checkbox"/> screen/list of high-risk patients</td> <td><input type="checkbox"/> e-mail communication</td> </tr> <tr> <td><input type="checkbox"/> electronic referral system</td> <td><input type="checkbox"/> none of the above</td> </tr> <tr> <td><input type="checkbox"/> other (specify: _____)</td> <td></td> </tr> </table>	<input type="checkbox"/> lab test ordering	<input type="checkbox"/> prescription ordering	<input type="checkbox"/> a registry with patient data	<input type="checkbox"/> electronic medical records	<input type="checkbox"/> screen/list of high-risk patients	<input type="checkbox"/> e-mail communication	<input type="checkbox"/> electronic referral system	<input type="checkbox"/> none of the above	<input type="checkbox"/> other (specify: _____)					
<input type="checkbox"/> lab test ordering	<input type="checkbox"/> prescription ordering														
<input type="checkbox"/> a registry with patient data	<input type="checkbox"/> electronic medical records														
<input type="checkbox"/> screen/list of high-risk patients	<input type="checkbox"/> e-mail communication														
<input type="checkbox"/> electronic referral system	<input type="checkbox"/> none of the above														
<input type="checkbox"/> other (specify: _____)															

Physician Survey Office Practices & Patient Care

Albany/Schenectady, NY Area

CURRENT OFFICE PRACTICE SYSTEMS	
<p>B. Patient Support Programs</p> <p>Different types of patient support programs can be used to assist in the care of patients with certain chronic conditions or at-risk populations. Please respond to each of the following items regarding patient support programs at your office practice.</p>	
Item	Response
<p>1. If applicable, please identify the specific types of programs to which patients were referred during the past 12 months.</p>	<p><i>(check all that apply)</i></p> <p> <input type="checkbox"/> Smoking cessation programs <input type="checkbox"/> Weight loss programs <input type="checkbox"/> Substance abuse programs <input type="checkbox"/> Exercise programs <input type="checkbox"/> Educational programs for chronic conditions <input type="checkbox"/> Nutritionist </p>
<p>2. What type of programs or methods does your office practice have in place to improve the quality of care for patients with chronic conditions or at-risk populations?</p>	<p><i>(check all that apply)</i></p> <p> <input type="checkbox"/> formal quality improvement committee which meets regularly <input type="checkbox"/> specific written quality improvement goals <input type="checkbox"/> written timelines for implementing quality improvement activities <input type="checkbox"/> method for evaluating effectiveness of quality improvement efforts <input type="checkbox"/> routine review of evidence-based literature for chronic conditions <input type="checkbox"/> other (specify: _____) </p>

FUTURE OFFICE PRACTICE SYSTEMS	
<p>Some office practices have adopted clinical information systems, such as electronic medical records (EMRs), patient registries, or computerized drug order entry systems, to support their patient care efforts. Please answer each of the following items concerning the likelihood that your office practice would adopt a clinical information system in the future.</p>	
Item	Response
<p>1. To what extent do you believe that use of clinical information systems (e.g., EMRs or patient registries) improves patient care?</p>	<p><i>(circle one)</i></p> <p style="text-align: center;"> not at all somewhat moderately extremely </p>
<p>2. How likely is it that your office practice will adopt a new clinical information system (e.g., EMR or patient registry) within the next year?</p>	<p><i>(circle one)</i></p> <p> <input type="checkbox"/> Check here if your practice already has a clinical information system in place, and Skip Questions 3-5 on the following page. Please continue with the Quality Improvement Programs section on page 4 of this survey. </p> <p style="text-align: center;"> not at all somewhat moderately extremely </p>

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Item	Response																								
3. Which of the following are reasons why you might consider adopting a new clinical information system at your practice?	<p><i>(check all that apply)</i></p> <p><input type="checkbox"/> to improve the quality of patient care</p> <p><input type="checkbox"/> to make patient information more easily accessible</p> <p><input type="checkbox"/> to make it easier to respond to reporting requirements (e.g., HEDIS)</p> <p><input type="checkbox"/> because it presents a research opportunity</p> <p><input type="checkbox"/> other (specify: _____)</p> <p><input type="checkbox"/> my office practice is not interested in adopting a new clinical information system</p>																								
4. Which of the following would be the most important reason for you in deciding <u>not</u> to adopt a new clinical information system?	<p><i>(check one)</i></p> <p><input type="checkbox"/> the costs of buying, installing, and maintaining a new system are too high</p> <p><input type="checkbox"/> a new system would not improve the quality of patient care</p> <p><input type="checkbox"/> the time to learn a new system would be prohibitive</p> <p><input type="checkbox"/> the necessary cooperation among all members of my office practice would be prohibitive</p> <p><input type="checkbox"/> other (specify: _____)</p>																								
5. I would be motivated to invest in new clinical information systems...	<p><i>(circle one response per item)</i></p> <table style="width: 100%; text-align: center; border-collapse: collapse;"> <thead> <tr> <th></th> <th><i>strongly disagree</i></th> <th><i>disagree</i></th> <th><i>neither agree nor disagree</i></th> <th><i>agree</i></th> <th><i>strongly agree</i></th> </tr> </thead> <tbody> <tr> <td>a....if financial rewards were available to compensate me for expenditures related to implementing new systems.</td> <td>SD</td> <td>D</td> <td>N</td> <td>A</td> <td>SA</td> </tr> <tr> <td>b....if financial rewards were available that represented a significant opportunity to increase my income.</td> <td>SD</td> <td>D</td> <td>N</td> <td>A</td> <td>SA</td> </tr> <tr> <td>c....if I were publicly recognized for doing so.</td> <td>SD</td> <td>D</td> <td>N</td> <td>A</td> <td>SA</td> </tr> </tbody> </table>		<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>	a....if financial rewards were available to compensate me for expenditures related to implementing new systems.	SD	D	N	A	SA	b....if financial rewards were available that represented a significant opportunity to increase my income.	SD	D	N	A	SA	c....if I were publicly recognized for doing so.	SD	D	N	A	SA
	<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>																				
a....if financial rewards were available to compensate me for expenditures related to implementing new systems.	SD	D	N	A	SA																				
b....if financial rewards were available that represented a significant opportunity to increase my income.	SD	D	N	A	SA																				
c....if I were publicly recognized for doing so.	SD	D	N	A	SA																				

QUALITY IMPROVEMENT PROGRAMS																															
<p>A variety of organizations, including physician-based groups, have focused on programs targeted at improving the quality of patient care. The following is a list of features that may be part of such quality improvement programs. Please indicate the relative importance of each feature when considering participation in a quality improvement program.</p>																															
Item	Response																														
In order for me to consider participating in a quality improvement program, the program must....	<p><i>(circle one response per item)</i></p> <table style="width: 100%; text-align: center; border-collapse: collapse;"> <thead> <tr> <th></th> <th><i>not at all important</i></th> <th><i>somewhat important</i></th> <th><i>moderately important</i></th> <th><i>very important</i></th> <th><i>extremely important</i></th> </tr> </thead> <tbody> <tr> <td>1....demonstrate how achieving the quality goals would meaningfully improve the health of my patients.</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>2....offer financial rewards which are tied to quality goals that are scientifically valid and clinically relevant.</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>3....offer financial rewards which are equally available to all physicians eligible for the program</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>4....include measures which are adequately adjusted to account for the characteristics of my patients.</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </tbody> </table>		<i>not at all important</i>	<i>somewhat important</i>	<i>moderately important</i>	<i>very important</i>	<i>extremely important</i>	1....demonstrate how achieving the quality goals would meaningfully improve the health of my patients.	1	2	3	4	5	2....offer financial rewards which are tied to quality goals that are scientifically valid and clinically relevant.	1	2	3	4	5	3....offer financial rewards which are equally available to all physicians eligible for the program	1	2	3	4	5	4....include measures which are adequately adjusted to account for the characteristics of my patients.	1	2	3	4	5
	<i>not at all important</i>	<i>somewhat important</i>	<i>moderately important</i>	<i>very important</i>	<i>extremely important</i>																										
1....demonstrate how achieving the quality goals would meaningfully improve the health of my patients.	1	2	3	4	5																										
2....offer financial rewards which are tied to quality goals that are scientifically valid and clinically relevant.	1	2	3	4	5																										
3....offer financial rewards which are equally available to all physicians eligible for the program	1	2	3	4	5																										
4....include measures which are adequately adjusted to account for the characteristics of my patients.	1	2	3	4	5																										

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PATIENT CARE					
B. Patient Exams/Tests					
The following questions concerns specific types of exams/tests associated with the care of patients with diabetes or cardiovascular disease. Please respond to these questions specifically with regard to your patients with diabetes or cardiovascular disease.					
Item	Response				
(circle one response per item)					
1. For each of the following, please indicate how often you perform each exam/test or advise that each exam/test be performed <u>for your patients with diabetes</u> :	<input type="checkbox"/> Check here if you do not provide primary care for at least 15 diabetic patients, and proceed to the next question.				
	each visit	4 times per year	2 times per year	yearly	less than yearly
a. foot exam.....	each visit	4x/yr	2x/yr	yearly	< yearly
b. HDL/LDL.....	each visit	4x/yr	2x/yr	yearly	< yearly
c. glycosylated hemoglobin (HbA1c).....	each visit	4x/yr	2x/yr	yearly	< yearly
d. depression screen.....	each visit	4x/yr	2x/yr	yearly	< yearly
e. dilated eye exam.....	each visit	4x/yr	2x/yr	yearly	< yearly
(circle one response per item)					
2. For each of the following, please indicate how often you perform each exam/test or advise that each exam/test be performed <u>for your patients with cardiovascular disease</u> :	<input type="checkbox"/> Check here if you do not provide primary care for at least 15 cardiac patients, and proceed to the next question.				
	each visit	4 times per year	2 times per year	yearly	less than yearly
a. blood pressure reading.....	each visit	4x/yr	2x/yr	yearly	< yearly
b. cholesterol screening (LDL).....	each visit	4x/yr	2x/yr	yearly	< yearly
c. complete lipid profile.....	each visit	4x/yr	2x/yr	yearly	< yearly
d. stress test.....	each visit	4x/yr	2x/yr	yearly	< yearly
e. diabetes screening.....	each visit	4x/yr	2x/yr	yearly	< yearly

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PATIENT CARE				
C. Patient Care Management Systems				
Different types of clinical patient care management systems are available for physicians to use in managing the care of their patients with diabetes or cardiovascular disease. Please respond to each of the following items regarding your current use of such systems.				
Item	Response			
	<i>(check all that apply, per item)</i>			
1. For each of the following approaches, please indicate whether you currently use this approach to minimize hospitalizations among your patients with diabetes and/or cardiovascular disease?	Yes, for <u>Diabetic Patients</u>	Yes, for <u>Cardiac Patients</u>	No	Not Applicable (too few patients)
a. refer patients to an external care management program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. use my own practice's care management program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. coordination of specialty care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. coordination of ancillary care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. other (specify: _____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>(check all that apply, per item)</i>			
2. For each of the following methods, please indicate whether you currently use this method to manage the care of your patients with diabetes and/or cardiovascular disease:	Yes, for <u>Diabetic Patients</u>	Yes, for <u>Cardiac Patients</u>	No	Not Applicable (too few patients)
a. office staff call to remind patients of upcoming appointments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. use of an automated computer/phone system to call patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. regular mail/e-mail to patients regarding managing their diabetes or cardiovascular disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. use of high-risk case managers for patients with diabetes or cardiovascular disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. provide patients with access to certified patient educators (e.g., CDEs for diabetic patients)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. contract with an external disease management organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. other (specify: _____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>(circle all that apply)</i>			
3. Do you have an electronic system (e.g., computer registry or electronic medical record) which prompts or alerts you when a patient is not in compliance with suggested care guidelines (e.g., the patient is due for an exam, test, or follow-up visit)?	Yes, for <u>Diabetic Patients</u>	Yes, for <u>Cardiac Patients</u>	No	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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PATIENT CARE PROVIDER RECOGNITION

Physicians whose practices follow specific guidelines for the care of diabetic or cardiac patients, and whose patients meet specific health outcomes, are eligible to become recognized Diabetes or Cardiac Care Providers through programs administered by the National Committee for Quality Assurance (NCQA):

- Diabetes Physician Recognition Program (DPRP) for high performance in diabetes patient care
- Heart/Stroke Recognition Program (HSRP) for high performance in cardiac patient care

Through NCQA, patients can access lists of recognized Providers to assist in the selection of a physician.

Please answer the following questions with regard to the NCQA diabetes and cardiac care provider performance assessment programs, DPRP and HSRP.

Item	Response										
1. How familiar are you with NCQA's programs to recognize Diabetes or Cardiac Care Providers?	(circle one) not at all familiar somewhat familiar moderately familiar very familiar currently recognized or seeking recognition										
2. To what extent do you think meeting the standards for becoming a recognized Provider is an indicator of high quality diabetes or cardiac patient care?	(circle one) not at all somewhat moderately very much extremely										
3. Once patients are aware of NCQA's program, how important do you think Diabetes or Cardiac Care Provider recognition would be to diabetic or cardiac patients when they select a physician?	(circle one) not at all important somewhat important moderately important very important extremely important										
4. I would be motivated to become a recognized Diabetes or Cardiac Care Provider...	(circle one response per item)										
a...if financial rewards were available to compensate me for the time required to become recognized.	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><i>strongly disagree</i></td> <td style="text-align: center;"><i>disagree</i></td> <td style="text-align: center;"><i>neither agree nor disagree</i></td> <td style="text-align: center;"><i>agree</i></td> <td style="text-align: center;"><i>strongly agree</i></td> </tr> <tr> <td style="text-align: center;">SD</td> <td style="text-align: center;">D</td> <td style="text-align: center;">N</td> <td style="text-align: center;">A</td> <td style="text-align: center;">SA</td> </tr> </table>	<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>	SD	D	N	A	SA
<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>							
SD	D	N	A	SA							
b...if financial rewards were available that represented a significant opportunity to increase my income.	SD D N A SA										
c...because achieving recognition would demonstrate to my current patients with diabetes or cardiovascular disease that I provide a high level of care.	SD D N A SA										
d...because achieving recognition would attract new patients with diabetes or cardiovascular disease to my practice.	SD D N A SA										
5. Which of the following are reasons why you might consider seeking Diabetes or Cardiac Care Provider recognition?	(check all that apply) <input type="checkbox"/> to improve the quality of patient care <input type="checkbox"/> to indicate to patients that I offer high quality care <input type="checkbox"/> to indicate to other providers that I offer high quality care <input type="checkbox"/> to indicate to purchasers that I offer high quality care <input type="checkbox"/> to have feedback that will help in internal quality improvement efforts <input type="checkbox"/> to make it easier to respond to reporting requirements (e.g., HEDIS) <input type="checkbox"/> other (specify: _____)										

APPENDIX D: MARKET-WIDE SURVEYS (PATIENT)

Research Question 1	<p>Do the BTE programs engage physicians?</p> <p>A. Did physician/market awareness about the program increase over time?</p> <p>B. Did physician participation in BTE increase over time?</p> <p>C. What factors and barriers affected physician participation?</p> <p>D. Did physician healthcare behaviors change in the market over time?</p>
Research Question 2	<p>Do the BTE programs engage patients?</p> <p>A. Did the number/percent of patients seeing recognized physicians increase over time?</p> <p>B. Did patient participation in the consumer rewards program increase over time?</p>
Research Question 3	<p>What market factors were related to successful implementation of BTE?</p> <p>A. Are there any factors that affected program success differentially in the BTE pilot markets?</p> <p>B. What barriers were encountered in implementing the program?</p>
Research Question 4	<p>Does participation in the BTE programs result in healthier patients and reduced healthcare costs?</p> <p>A. Did patient healthcare behaviors and outcomes change in the market over time?</p> <p>B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?</p>

PATIENT DCL-CCL SURVEY						
Research Question		Section				
		Demographics	Your Health	Diabetes Care Management	General Healthcare Management	Diabetes Quality Programs
I	A					
	B					
	C					
	D					
II	A					X
	B					
III	A					
	B					
IV	A		X	X	X	
	B					

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
4. I always test my blood sugar at least daily (or the schedule that is recommended for me).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. There is little I can do to prevent long-term complications from my diabetes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I know how much exercise is needed to control my blood sugar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. My doctor or nurse has shown me how to monitor my condition so I can tell how I am doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I seldom do a carbohydrate count when deciding what to eat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. My healthcare provider follows the recommended guidelines for treating diabetes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I know how to take care of my feet to prevent diabetes-related problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I always take my diabetes medication as my doctor recommends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I am confident that I can follow through on the recommendation to exercise regularly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I have my eyes checked by an eye doctor at least once a year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. My doctor or nurse has helped me set specific goals to improve my diet or exercise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. My weight is higher than what is recommended for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I am confident that I can keep my blood sugar levels from going too high or too low.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. It is too hard to always stick to my recommended diet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I always keep a written diary of my blood sugar levels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I know what the possible long-term complications of diabetes are.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I rarely check my feet for cracks and calluses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2/3/05							

GENERAL HEALTH CARE MANAGEMENT

Below are statements that people sometimes make when they talk about their health. Please indicate how much you agree or disagree with each statement as it applies to you personally. Your answers should be what is true for you and not just what you think the doctor wants you to say. If the statement does not apply to you, just move on to the next one.

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. When all is said and done, I am the person who is responsible for managing my health condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Taking an active role in my own health care is the most important factor in determining my health and ability to function.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am confident that I can take actions that will help prevent or minimize some symptoms or problems associated with my health condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I know what each of my prescribed medications do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I am confident that I can tell when I need to go get medical care and when I can handle a health problem myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I am confident I can tell a doctor concerns I have even when he or she does not ask.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I am confident that I can follow through on medical treatments I need to do at home.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I understand the nature and causes of my health condition(s).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I know the different medical treatment options available for my health condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I have been able to maintain the lifestyle changes for my health condition that I have made.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I know how to prevent further problems with my health condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I am confident I can figure out solutions when new situations or problems arise with my health condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I am confident that I can maintain lifestyle changes, like diet and exercise, even during times of stress.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DIABETES QUALITY PROGRAMS

1. Are you aware of any programs in your community that are focused on improving care for diabetes patients?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

2. Some physicians in your community are recognized for meeting national diabetes performance criteria and demonstrating good outcomes in the care of their diabetes patients. Have you heard of the *Diabetes Physician Recognition Program (DPRP)* or the *Bridges to Excellence* program?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

3. Are you aware of whether your own physician is recognized in the DPRP program for meeting national diabetes performance standards in his/her care of diabetes patients?

Yes	No	Don't Know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. If you were to choose a new physician to help manage your diabetes, how important would it be to you that your new physician be recognized for meeting national diabetes performance criteria and demonstrating good outcomes in the care of his/her diabetes patients?

<i>Not At All Important</i>	<i>Somewhat Important</i>	<i>Very Important</i>	<i>Extremely Important</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. How interested would you be in using an internet-based, patient-focused web site that helps you to manage your diabetes?

<i>Not At All Interested</i>	<i>Somewhat Interested</i>	<i>Very Interested</i>	<i>Extremely Interested</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. If a web tool was available to help you manage your diabetes and a small monetary incentive was offered for using the tool (e.g., \$10-\$20 coupon for diabetic supplies), how likely would you be to use the web tool to help manage your diabetes?

<i>Not At All Likely</i>	<i>Somewhat Likely</i>	<i>Very Likely</i>	<i>Extremely Likely</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

THANK YOU!

THANK YOU FOR COMPLETING THIS SURVEY.

Please return your survey in the
enclosed self-addressed, stamped envelope.

2/3/05

«SURVEY_ID»

APPENDIX E: REWARD SURVEYS

Research Question 1	Do the BTE programs engage physicians? A. Did physician/market awareness about the program increase over time? B. Did physician participation in BTE increase over time? C. What factors and barriers affected physician participation? D. Did physician healthcare behaviors change in the market over time?
Research Question 2	Do the BTE programs engage patients? A. Did the number/percent of patients seeing recognized physicians increase over time? B. Did patient participation in the consumer rewards program increase over time?
Research Question 3	What market factors were related to successful implementation of BTE? A. Are there any factors that affected program success differentially in the BTE pilot markets? B. What barriers were encountered in implementing the program?
Research Question 4	Does participation in the BTE programs result in healthier patients and reduced healthcare costs? A. Did patient healthcare behaviors and outcomes change in the market over time? B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?

PHYSICIAN REWARDS/PARTICIPANT SURVEY							
Research Question		Section					
		General Program Assessment	Program Communication	NCQA Performance Assessment Process	NCQA Performance Assessment Process With Optional Requested Risk Adjustment	Program Rewards Process	Physician Involvement
I	A						
	B						
	C	X	X	X	X	X	X
	D						
II	A						
	B						
III	A						
	B						
IV	A						
	B						



Dear Physician:

Thank you for your support of the Diabetes Care Link (DCL) Program sponsored by the Bridges to Excellence initiative.

Your feedback is very important to us. Please answer the 10 short questions in this survey with regard to your personal experience with the Diabetes Care Link (DCL) Program.

All responses are confidential and will be used only for the purpose of improving our efforts to reward quality across the health care system.

Your responses are of great value, and we appreciate your willingness to complete this survey.

Thank you!

Sincerely,

A handwritten signature in black ink that reads "Jeff Hanson". The signature is written in a cursive style with a long horizontal stroke at the end.

Jeff Hanson
Board President, Bridges to Excellence

Diabetes Care Link (DCL) Program Physician Evaluation Survey

GENERAL DCL PROGRAM ASSESSMENT

1. Please indicate your overall evaluation of the DCL Program. *(circle one)*
extremely poor poor satisfactory good excellent

2. What were the major reasons why you obtained performance recognition in NCQA's Diabetes Physician Recognition Program (DPRP)? *(check all that apply)*
 a. to obtain the financial rewards offered by BTE in the DCL Program
 b. to retain current patients by demonstrating that I provide high quality diabetes care
 c. to attract new patients by demonstrating I provide high quality diabetes care
 d. to demonstrate to purchasers that I provide high quality diabetes care
 e. to use as part of my own internal quality improvement efforts
 f. to make it easier to respond to reporting requirements (e.g., HEDIS)
 g. other (specify: _____)

3. How likely is it that you will continue your participation in the DCL Program by re-applying for 3-year performance recognition with NCQA? *(circle one)*
not at all somewhat moderately very extremely
likely likely likely likely likely

4. Some physicians have had to make substantial system and process changes in order to qualify for the DCL Program reward, whereas other physicians have already had systems/processes in place that allowed them to qualify for the reward. Which of the following best describes the extent to which you needed to make changes to qualify for the DCL Program reward. *(check one response only)*
 a. I made substantial changes to qualify for DCL rewards.
 b. I made some changes to qualify for DCL rewards.
 c. I made minor changes to qualify for DCL rewards.
 d. I made no changes to qualify for DCL rewards; the necessary systems and processes already were in place at my practice.

5. If you made any changes specifically in order to obtain NCQA's DPRP recognition and to qualify for DCL Program rewards, please describe what those system and process changes were.

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6. Please indicate how the DCL Program has changed your approach to diabetes patient care. (check all that apply)

The DCL Program has...

- _____ a. ...increased my awareness of best practice guidelines for diabetes patient care.
- _____ b. ...increased the likelihood that I will discuss or disseminate best practice guidelines with my diabetes patients.
- _____ c. ...increased the frequency with which I follow-up with my diabetes patients.
- _____ d. ...none of the above.

NCQA PERFORMANCE ASSESSMENT PROCESS

7. Please indicate how satisfied you were with each of the following aspects of the NCQA Diabetes Physician Recognition Program (DPRP) recognition process? (circle one response per item)

	<u>very</u> <u>dissatisfied</u>	<u>dissatisfied</u>	<u>satisfied</u>	<u>very</u> <u>satisfied</u>
a. timeliness of receipt of application materials following my request	1	2	3	4
b. clarity of NCQA instructions for how to apply	1	2	3	4
c. timeliness of NCQA's response to my application	1	2	3	4
d. availability of resources to answer my questions about the application process	1	2	3	4
e. amount of time and effort required for me to obtain, complete, and submit the application	1	2	3	4

DCL PROGRAM REWARDS PROCESS

8. Please indicate how satisfied you were with each of the following aspects of the DCL Program rewards administration process? (circle one response per item)

	<u>very</u> <u>dissatisfied</u>	<u>dissatisfied</u>	<u>satisfied</u>	<u>very</u> <u>satisfied</u>
a. timeliness of receipt of reward payment following certification/recognition	1	2	3	4
b. size of reward obtained relative to amount of effort required to participate	1	2	3	4
c. availability of resources to answer my questions about the rewards process	1	2	3	4

DCL PROGRAM COMMUNICATION

9. Please indicate how useful you found each of the following resources for learning about the DCL Program? (circle one response per item)

	<i>did not use</i>	<i>not at all useful</i>	<i>somewhat useful</i>	<i>very useful</i>
a. physician information packet (mailed)	0	1	2	3
b. personal interaction with BTE regional team representatives	0	1	2	3
c. presentations by BTE regional team representatives	0	1	2	3
d. www.bridgestoexcellence.org web site	0	1	2	3
e. 1-800-224-7161 toll-free Bridges phone line	0	1	2	3
f. www.ncqa.org/dprp/ NCQA web site, 1-888-275-7585 NCQA customer support line	0	1	2	3
g. moine@aapl.com , 1-773-643-1700 Michael Pine & Associates risk adjustment information	0	1	2	3

10. Please indicate how clearly each of the following was explained in the DCL Program communications you reviewed? (circle one response per item)

	<i>not at all clear</i>	<i>somewhat clear</i>	<i>moderately clear</i>	<i>extremely clear</i>
a. goals of the DCL Program	1	2	3	4
b. the NCQA recognition/certification application process	1	2	3	4
c. the risk-adjustment scoring process	1	2	3	4
d. the rewards calculation process	1	2	3	4

PHYSICIAN INVOLVEMENT

Please provide any ideas that you have regarding how we can increase physician participation and involvement with the DCL Program. Your comments are welcome for the future growth of this program.

THANK YOU!

THANK YOU FOR COMPLETING THIS SURVEY.

Please return your survey in the enclosed self-addressed, stamped envelope.

5/24/05

«SURVEY_ID»

APPENDIX F: BTE PROJECT PARTICIPANT & VENDOR OBSERVATIONS SURVEY

Research Question 1	<p>Do the BTE programs engage physicians?</p> <p>A. Did physician/market awareness about the program increase over time?</p> <p>B. Did physician participation in BTE increase over time?</p> <p>C. What factors and barriers affected physician participation?</p> <p>D. Did physician healthcare behaviors change in the market over time?</p>
Research Question 2	<p>Do the BTE programs engage patients?</p> <p>A. Did the number/percent of patients seeing recognized physicians increase over time?</p> <p>B. Did patient participation in the consumer rewards program increase over time?</p>
Research Question 3	<p>What market factors were related to successful implementation of BTE?</p> <p>A. Are there any factors that affected program success differentially in the BTE pilot markets?</p> <p>B. What barriers were encountered in implementing the program?</p>
Research Question 4	<p>Does participation in the BTE programs result in healthier patients and reduced healthcare costs?</p> <p>A. Did patient healthcare behaviors and outcomes change in the market over time?</p> <p>B. Is there a difference in average healthcare costs as a result of improved healthcare behaviors?</p>

EMPLOYER/VENDOR OBSERVATIONS SURVEY				
Research Question		Section		
		Physician Engagement	Healthcare Improvements	BTE Program Improvement
I	A			
	B			
	C	X	X	X
	D	X	X	X
II	A			
	B			
III	A	X	X	X
	B	X	X	X
IV	A			
	B			

BTE Survey: Project Participant & Vendor Observations

INSTRUCTIONS: Please complete this survey and return it to Andriana Hohlbauch via email at Andriana.Hohlbauch@thomson.com or fax at (805) 681-5888

Thank You for completing this survey.

The purpose of this survey is to learn about BTE Project Participants and Vendors experiences in implementing the BTE program, including physician outreach activities. Your input will be used to help improve the program and guide BTE implementation in current and future markets.

Physician/Practice Outreach & Engagement

1. What is the total number of physicians and office practices to whom you outreached in your market regarding BTE?

Physicians

Office practices

2. Which of the following methods of direct outreach did you use to outreach physicians?

Phone E-mail Face-to-Face

3. Which method of direct outreach did you find to be the most effective in engaging physicians?

Phone E-mail Face-to-Face

Why?

4. What types of BTE communication and outreach efforts did you think were most effective and least effective in your market for increasing physicians' awareness about BTE? *(please check all that apply)*

	<i>Most Effective</i>	<i>Least Effective</i>
Direct Regional Team Outreach	<input type="checkbox"/>	<input type="checkbox"/>
Physician Targeted Mailings	<input type="checkbox"/>	<input type="checkbox"/>
BTE Newsletter	<input type="checkbox"/>	<input type="checkbox"/>
Local Media Articles	<input type="checkbox"/>	<input type="checkbox"/>
Physician Organization Endorsements	<input type="checkbox"/>	<input type="checkbox"/>
Other (Specify: _____)	<input type="checkbox"/>	<input type="checkbox"/>

Why?

5. What were the major reasons physicians/practices provided to you for why they decided to participate in BTE?

6. What types of changes were most commonly adopted by physicians/practices to make their office practice systems and/or their care behaviors in order to meet the performance requirements to obtain NCQA recognition and obtain BTE rewards?

Market Success Factors & Barriers	
1.	What were the major factors you observed that <u>positively impacted</u> the success of BTE in your market? <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
2.	What were the major barriers or obstacles you observed that <u>negatively impacted</u> the success of BTE in your market? <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
What changes were made in implementing BTE in your market that helped to overcome any barriers encountered? Were these changes successful in improving implementation success of BTE? <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	
3.	Please comment on your observations/interactions with physicians regarding the <u>NCQA application/recognition process</u> (e.g., ease of completing the application, clarity of the application, timeliness of responses from NCQA, etc.). <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
4.	Please comment on your observations/interactions with physicians regarding the <u>BTE reward process</u> (e.g., amount of reward, timeliness of reward, etc.). <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
5.	Based on the implementation of BTE in your market, what "best practices" were developed or could be developed to improve the successful implementation of BTE in new markets in the future? <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
6.	Please provide any other comments/observations you have regarding improving BTE implementation. <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
Survey Completion Information	
Data Completed: ___/___/___	
Name of Individual Completing Survey: _____	
Affiliated Organization: _____	
<input type="checkbox"/> Self-completed <input type="checkbox"/> Phone Interview (Interviewer: _____)	
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