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Park Nicollet Health Services Physician Group Practice Demonstration

Site Visit Final Report

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*RTI International is a trade name of Research Triangle Institute.

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EXECUTIVE SUMMARY

The Centers for Medicare & Medicaid Services (CMS) initiated the Physician Group Practice (PGP) demonstration in April 2005. This 3-year demonstration offers participating PGPs the opportunity to earn bonuses for improving the quality and efficiency of care delivered to Medicare fee-for-service (FFS) beneficiaries. Ten large PGPs are participating in the demonstration.

CMS contracted with RTI International, an independent, nonprofit research organization, to evaluate the PGP demonstration. As part of its evaluation, RTI is conducting site visits at each of the ten PGPs participating in the demonstration in the winter of 2005-2006. The purpose of these site visits is to understand the decisions of the PGPs to participate in the demonstration, as well as their early implementation and operational experience with the demonstration. This report contains findings for Park Nicollet Health Services (hereafter "PNHS").

PNHS is a nonprofit, integrated-care delivery system that includes Park Nicollet Clinic and Methodist Hospital. Park Nicollet Clinic is a large multi-specialty clinic that employs 543 physicians (350 primary care), and has 26 clinic locations (21 of which offer primary care) throughout the Minneapolis-St. Paul, Minnesota metropolitan area. Methodist Hospital is a 426-bed facility with more than 960 physicians on its medical staff located in a suburb of Minneapolis.

Demonstration Participation and Strategy. PNHS management is focused on reengineering medical care processes to improve quality and efficiency. Beginning in 2003, PNHS made a system-wide commitment to "lean production." Lean production was developed by the Toyota automobile company to reduce waste and improve quality. PNHS is one of the first care systems to apply the Toyota methods in a health care setting, and it intends to devote 1 percent of its annual budget to implementing lean production principles. The PGP demonstration's goals of improving the quality and efficiency of care is consistent with applying lean production techniques to Medicare FFS patients, who comprise a large and growing share of PNHS's patient base.

Additionally, PNHS historically has had a focus on managing chronic disease. Its prior ownership of an HMO created an awareness of total cost and developing cost-efficient practice patterns. The demonstration provides PNHS with an opportunity to improve the support of individuals with chronic disease while enhancing financial performance. Finally, Methodist Hospital is running a high occupancy rate and PNHS would like to reduce Medicare admissions to free up beds for other uses. PNHS's goal is to create capacity through efficiency improvements so it does not have to build additional infrastructure (e.g., hospital beds). The PGP demonstration facilitates the goal of reducing admissions by paying a bonus for resulting cost savings.

Patient Care Interventions. PNHS decided to focus on avoiding admissions and readmissions for heart failure patients as the fastest way to save significant money under the PGP demonstration. To reduce admissions, PNHS established a completely new telephone-based heart failure care coordination program, "Park Nicollet Heart Failure Care Coordination with CHF Tel-Assurance." Purchased from an external vendor, and implemented on June 1, 2005, the heart

failure telephone system is staffed by a director and three nurse case managers. To date, 347 patients have enrolled. Preliminary results of the system are promising, but not definitive.

Provider Participation and Relations. Members of PNHS's demonstration implementation team visited PNHS's 21 primary care sites between June and September 2005. Staff physicians were informed of the 3-year demonstration project and its potential for increased Medicare reimbursement if quality and efficiency are improved. The introduction of physicians to the demonstration emphasized the new heart failure Tel-Assurance program. The leadership team presented the PGP demonstration as integrated with other PNHS initiatives. PNHS leadership wants to standardize best care practices among its physicians. This standardization is the change that is expected from physicians, not just as a result of the PGP demonstration, but following from all of PNHS's initiatives.

PNHS physician compensation is based mostly on patient care productivity. No bonuses or specific financial incentives related to the PGP demonstration have been established. PNHS profiles its physicians, providing them with confidential feedback comparing their performance to that of their peers. But formal or scheduled meetings of clinicians with managers to receive performance feedback are not routine. PNHS's strategy to drive improvement is increasing the "availability" of performance data for physicians by relying on physicians' desire to do better and be above average. PNHS expects this and reengineering of care processes (including the heart failure care coordination program) to achieve the goals of the PGP demonstration, not financial incentives or management pressure on individual physicians.

Demonstration Quality Indicators. PNHS prioritized demonstration quality indicators to focus on based on: evidence for the effectiveness of the intervention; how many patients are affected; improving indicators where PNHS's performance is poor; and the number of insurers rewarding performance on an indicator. PNHS's strategy for improving the PGP demonstration quality indicators revolves around education and feedback to its primary care sites and physicians, including physician reminders, profiling/feedback, and patient lists.

PNHS feels that the PGP demonstration includes too many quality indicators that are complicated and have too many components. The individual indicators are generally appropriate, other than those such as diabetic foot exam, that are difficult to collect. In the case of the diabetic foot exam, it is difficult to extract from the medical record whether the three components of the diabetic foot exam were completed. PNHS strongly prefers indicators they can collect electronically and do not require chart abstraction. During the interviews, it was noted that for some of the indicators, PNHS staff have to pull 1,600 charts a quarter. The multiple demonstration quality indicator thresholds are appropriate. PNHS appreciates the quality improvement target threshold in particular. If targets are unattainably high, physician interest in trying to achieve them may wane.

Information Technology. Information technology is seen as a key strategic area by senior management. PNHS's integrated electronic medical record is a key competitive advantage. Information technology has been very well accepted at PNHS and is widely used. PNHS considers itself a "data driven organization." Training on systems is mandatory. PNHS purchases its software systems from outside vendors. It used to do in-house development, but that became too complex and expensive. PNHS's information technology systems are used to

support the PGP demonstration and other initiatives. But PNHS did not mention any major information technology initiatives that are specifically in response to its participation in the PGP demonstration. The demonstration resulted in some adaptations of existing systems, such as adding fields to the electronic medical record to collect certain demonstration quality indicators

SECTION 1
INTRODUCTION

1.1 Background

The Centers for Medicare & Medicaid Services (CMS) initiated The Physician Group Practice (PGP) demonstration in April 2005. This 3-year demonstration offers participating PGPs the opportunity to earn bonuses for improving the quality and efficiency of care delivered to Medicare fee-for-service (FFS) beneficiaries. Ten large PGPs are participating in the demonstration.

CMS contracted with RTI International, an independent, nonprofit research organization, to evaluate the demonstration. As part of its evaluation, RTI is conducting site visits at each of the ten participating PGPs in the winter of 2005-2006. The purpose of these site visits is to understand the decisions of the PGPs to participate in the demonstration and their early implementation and operational experience with the demonstration. RTI is producing a site visit report for each of the ten demonstration PGPs. Material from the site visit reports will be included in CMS' Report to Congress on the PGP demonstration, due at the end of 2006. This report is for Park Nicollet Health Services (hereafter "PNHS").

1.2 Sources and Methods

The primary source for the site visit reports is the one-day, on-site interviews conducted by RTI staff. The PNHS site visit took place on December 7, 2005 at PNHS offices in St. Louis Park, Minnesota. The interviews were divided into multiple sessions by the following topic areas:

1. Demonstration Participation and Strategy—The purpose of this session was to understand PNHS' motivation for participating in the demonstration and to understand how the demonstration relates to the PGP's overall strategy and operational goals.

2. Patient Care Interventions—The purpose of this session was to gather information on programs that have been implemented by PNHS due to the demonstration to improve disease management and coordination of care and to understand how these interventions have improved efficiency.

3. Provider Participation and Relations—The purpose of this session was to determine the extent of provider participation in demonstration activities and to understand the financial and non-financial incentives that may exist for providers due to the demonstration.

4. Quality Improvement and Measurement—The purpose of this session was to determine whether programs that specifically target quality of care have been implemented as part of the demonstration and also to gather information on how those interventions were implemented.

5. Information Technology—The purpose of this session was to gather information on how the demonstration may have changed health care reporting and data collection systems for any interventions such as patient care activities or quality interventions.

Some participants varied by session based on their area of expertise. The agenda, including PNHS participants for the site visit, is attached as Appendix A. PNHS participants included its Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, Chief Medical Officer, Chief of Inpatient Care, Research Director, Vice President Government Relations, Chief of Primary Care, and other clinical, and quality assurance personnel. Gregory Pope and Musetta Leung (in person) and Roberta Constantine (by phone) of RTI conducted the interviews according to a pre-defined, semi-structured interview protocol organized according to the above five topic areas. John Pilotte of CMS also participated (in-person) in the interviews.

In addition to the interviews, this report draws on written materials provided by PNHS during or after the site visit, or as part of the demonstration project. These materials include PNHS's demonstration implementation protocol, and its demonstration baseline and quarterly reports. During and after the interview, PNHS provided RTI with written information on its heart failure care coordination program, its clinical guidelines, its Quality Report, and its publicly-reported pay-for-performance measures. Also, PNHS's web site was consulted for background information. Finally, we drew some information on PNHS's Medicare assigned beneficiary population from RTI's analysis of Medicare claims and enrollment data for the demonstration.

Statistics cited in this report sometimes varied slightly among alternative sources. For example, the reported number of PNHS's care sites might differ slightly among the PNHS web site, PNHS demonstration reports, and RTI's site visit interview notes. Generally these differences are not consequential, and could arise from different time frames, inclusion criteria, definitions, etc. In this report, we cited numbers from written demonstration reports or materials submitted by PNHS or published sources (e.g., PNHS's web site) rather than our site visit notes, where possible. We also preferred statistics that were reported consistently across multiple sources. If a statistic seemed anomalous, or we were unsure of it or could not verify a precise magnitude, we indicated a general order of magnitude in this report, but did not cite a precise number. However, even if some statistics are subject to slight variation or uncertainty, we felt it was important to cite some specific numbers to adequately characterize PNHS and its demonstration participation. We submitted this report to PNHS staff for their review of its factual accuracy.

1.3 Overview of the Report

The next section describes PNHS as an organization and the environment in which it operates. The third report section discusses why PNHS chose to participate in the PGP demonstration and how doing so fits into its overall strategy. The fourth section describes patient care coordination initiatives, and the fifth section includes initiatives in provider education, feedback, and incentives. The sixth section discusses demonstration quality measures and reporting, and the seventh the role of information technology in the demonstration.

SECTION 2
ORGANIZATIONAL STRUCTURE, ENVIRONMENT, AND STRATEGY

2.1 Organizational Structure

PNHS is a nonprofit integrated care delivery system that includes Park Nicollet Clinic and Methodist Hospital. PNHS also includes the PNHS Foundation and the PNHS Institute. PNHS is a community non-profit organization governed by a single Board of Directors, except for the Institute and Foundation, each of which has its own Board of Directors. From 1971 to 1984, PNHS owned an HMO. PNHS has almost 7,500 employees.

Park Nicollet Clinic is a large multi-specialty clinic, providing care in 45 medical specialties and subspecialties. It employs more than 3,000, including 543 physicians (350 primary care), and has 26 clinic locations (21 of which offer primary care) throughout the Minneapolis-St. Paul, Minnesota metropolitan area. PNHS also has a home care service and sells durable medical equipment through its system, but does not have any long-term care facilities. All physicians at PNHS are employed and none have any ownership interest in the organization. In addition to the Board of Directors, PNHS has a Clinical Board of Governors that oversees the health care service focus of the organization.

Methodist Hospital is a 426-bed facility with 2,800 employees and more than 960 physicians on its medical staff, and is certified by the Joint Committee on Accreditation of Healthcare Organizations as a system. According to PNHS, Methodist Hospital is recognized as an area leader in cancer care, cardiovascular services, and neuro-rehabilitation medicine. It does not provide transplants, certain neurological procedures, or inpatient psychiatric services. Methodist is located in St. Louis Park, a suburb of Minneapolis. PNHS also owns one-third of St. Francis Regional Medical Center in Shakopee, Minnesota, an 80-bed hospital.

Park Nicollet Foundation is the fund-raising arm of PNHS and uses philanthropy to support patient care, research, and education. Park Nicollet Institute engages in research and education in health services and clinical research, health management and patient services, and professional services.

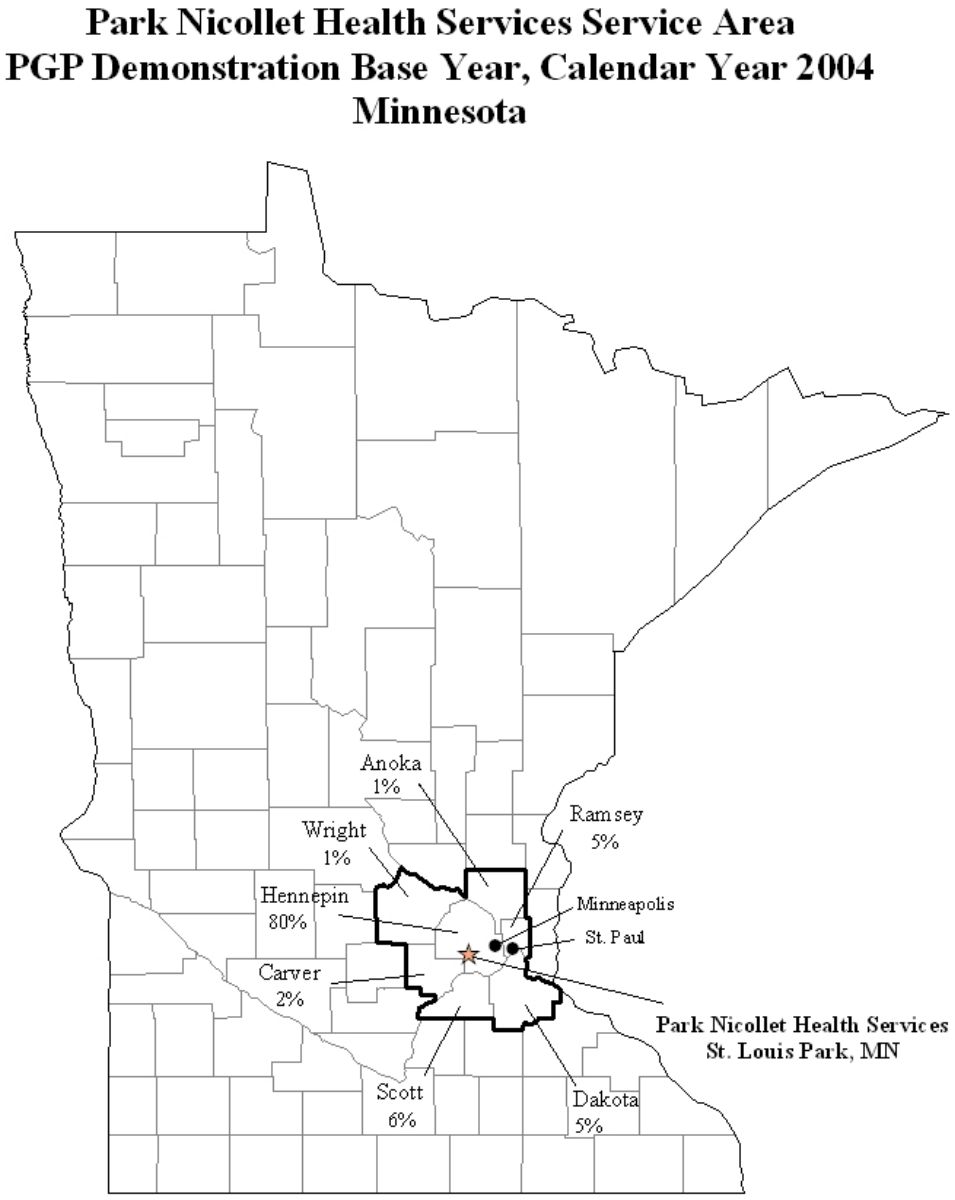
2.2 Environment

2.2.1 Service Area

PNHS described its service area as the western half of the Twin Cities area. ***Figure 1*** shows the PNHS Medicare service area for 2004 based on patient residence data. Counties where at least 1 percent of Medicare FFS beneficiaries assigned[1] to PNHS reside are included in its service area. PNHS draws 80 percent of its Medicare patients from Hennepin county, which includes Minneapolis and its western suburbs.

[1] A beneficiary was assigned to PNHS if the plurality of its office and other outpatient evaluation and management allowed charges were incurred at PNHS.

Figure 1
Park Nicollet Health Services Medicare service area for 2004



Notes:
1) Counties with at least 1% of assigned beneficiaries are in the service area.
2) Numbers in service area counties are percentages of service area assigned beneficiaries residing in the county. These percentages are used to weight comparison group county expenditure growth rates.
3) Due to rounding the percentage of assigned beneficiaries residing in the service area counties may not sum to 100%.

Source: RTI International

2.2.2 Patients

Table 1 shows selected characteristics of PNHS's 2004 Medicare patients available from Medicare administrative files. PNHS provided an office or other outpatient evaluation and management visit to 25,751 Medicare patients. Of these, 19,034 or 74 percent, received the plurality of their evaluation and management services from PNHS and so were assigned to PNHS for the PGP demonstration. Assigned beneficiaries received 5.23 evaluation and management visits on average from all providers, with 90 percent of the associated Medicare allowed charges provided by PNHS on average. PNHS feels that the PGP demonstration beneficiary assignment algorithm is appropriate and valid. The mean annualized Medicare per capita expenditure for PNHS's assigned beneficiaries was $6,348 in 2004.

Eighty six percent of PNHS's assigned Medicare patients are eligible for Medicare by age, 14 percent by disability (under age 65), and less than 1 percent by end-stage renal disease. Ten percent had at least 1 month of Medicaid eligibility in 2004. Ninety-six percent were white.

2.2.3 Payers

About 35–38 percent of PNHS's patients are insured by Medicare. Most Medicare patients are enrolled in the traditional FFS program, there are few Medicare Advantage private plan patients. Three to five percent of PNHS's patients are uninsured. The majority of the rest are insured by Blue Cross, with commercial insurers or state Medicaid comprising the remaining payers. Most payers pay PNHS physicians FFS. There is very little capitation (less than 1 percent of revenue). Hospital inpatient services are paid typically by Diagnosis-Related Group (DRG) and hospital outpatient services by Ambulatory Patient Category (APC). Some commercial insurers "tier" providers by cost and/or quality, a technique which PNHS expects insurers to increasingly employ.

Many Twin Cities insurers are developing pay for performance initiatives in which substantial financial incentives for providers are attached to performance on quality and efficiency indicators. The indicators are mostly process-oriented quality measures. In total, added bonuses account for a significant portion of PNHS's operating revenue.

2.2.4 Competitors

PNHS competes with several other integrated delivery systems or physician groups. It has a higher percentage of Medicare patients compared to competitors. But the geographic and demographic composition of its patient base is similar to competitors. PNHS has a longer history as an integrated system than its competitors, which gives it an advantage because it has already worked through hospital/physician integration issues.

Table 1
Selected characteristics of Medicare patients, Park Nicollet Health Services, 2004

	No. of Beneficiaries	Percentage or Amount
Medicare Patients		
Total[1]	25,751	100.0%
Assigned Beneficiaries[2]	19,034	73.9%
Characteristics of Assigned Beneficiaries		
Average Number of Evaluation and Management Visits[3]	19,034	5.23
Average Percentage of Evaluation and Management Care Provided by PNHS[4]	19,034	90%
Per Capita Annualized Medicare Expenditures[5,6]	19,034	$6,348
Distribution of Assigned Beneficiaries		
Total	**19,034**	**100%**
Medicare Eligibility		
Aged	16,284	85.6%
End Stage Renal Disease	68	0.4%
Disabled	2,682	14.1%
Medicaid Eligibility		
Not Medicaid Eligible for any months in 2004	17,081	89.7%
Medicaid Eligible at least 1 month in 2004	1,953	10.3%
Age		
Age < 65	2,737	14.4%
Age 65 - 74	8,915	46.8%
Age 75 - 84	5,676	29.8%
Age 85 +	1,706	9.0%
Race		
White	18,251	95.9%
Black	356	1.9%
Unknown	17	0.1%
Asian	180	0.9%
Hispanic	36	0.2%
North American Natives	30	0.2%
Other	164	0.9%

NOTES:
[1] Beneficiaries provided at least one office or other outpatient evaluation and management visit by PNHS.
[2] Beneficiaries who received the plurality of their office or other outpatient evaluation and management allowed charges at PNHS.
[3] Percentage of all office and other outpatient evaluation and management Medicare allowed charges provided to the beneficiary that were provided by PNHS.
[4] Office or other outpatient evaluation and management visits.
[5] Annualized Medicare expenditures per beneficiary are calculated by dividing actual expenditures by the fraction of the year the beneficiary is alive and eligible for Medicare (eligibility fraction), and are capped at $100,000.
[6] Weighted by the eligibility fraction.

SOURCE: RTI Analysis of Calendar Year 2004 100% Medicare Claims Files and Enrollment Datasets

2.3 Major Strategic Initiatives

Beginning in 2003, PNHS made a system-wide commitment to "lean production." Lean production was developed by the Toyota automobile company to reduce waste and improve quality. PNHS is one of the first care systems to apply the Toyota methods in a health care setting. PNHS had previously tried other organizational efficiency/quality improvement systems such as Six Sigma, but found that lean production's emphasis on the time metric was superior.

The five elements of "lean" are cost; quality; safety; morale; and service, which are applied across seven service lines: primary care; surgical specialties; medical specialties; heart; cancer; inpatient; and ancillary. At PNHS, the five elements have been adapted to reflect stewardship, care, and joy. Goals are formulated, indicators are identified, targets are established, and progress toward targets on the indicators is measured. For example, an efficiency goal is more patients served per FTE employee. A quality goal is a higher percentage of diabetics with blood sugar controlled. Indicator trends are plotted and examined. PNHS claims "measurable and substantial improvements in patient care and safety, patient access, and improved wait times," valued at $7.5 million in 2004.[2]

PNHS conducted 80 "Rapid Progress Improvement Workshops" in 2005. These are focused projects used to identify and eliminate waste, develop standard work, increase patient throughput, and improve safety and efficiency. Some examples of results claimed by PNHS are the following[3]:

- Reduced the number of medical emergencies that occurred on hospital floors by recognizing and responding to symptoms hours before a code was called.
- Developed a new process for real-time root cause analysis of deep vein thrombosis and pulmonary embolisms, heart attacks, and pneumonia by identifying problems faster and speeding the adoption of systemic corrective measures.
- Minimized patient waiting at the Imaging Center through flow analysis, which allowed the performance of an additional MRI and two additional CT Scans each day.
- Created the capacity for four additional stress echo studies per day by leveling (smoothing) the flow of patients through "waterfall" (staggered) scheduling at the Heart Center.
- Analyzed variation in general surgeons' instrument preferences and agreed on standard instruments for each case, resulting in processing 40,000 fewer instruments each month.

The goal of PNHS's lean production initiative is to control health care costs, improve quality, and create better value for payers. PNHS wants to improve its performance on the

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2 PNHS web site, http://www.parknicollet.com/Media/PDFs/leanProductionPR.pdf, accessed December 30, 2005.

3 http://www.parknicollet.com/Media/PDFs/leanProductionRPIWResults.pdf, accessed December 30, 2005.

indicators to which Twin City payers are attaching substantial pay for performance bonuses. PNHS intends to devote 1 percent of its annual budget to implementing lean production principles. Its lean production work has been recognized by the American Medical Group Association, which gave an award to PNHS in 2004 for “Applying Production Principles from Toyota to Improve Patient Care.”

SECTION 3
DEMONSTRATION PARTICIPATION AND STRATEGY

3.1 Reasons for Participating

Park Nicollet has been interested in the PGP demonstration since the concept was first developed in the 1990s. PNHS's ownership of an HMO from 1971 to 1984 created an awareness of total cost and developing cost-efficient practice patterns. In addition, PNHS has had a focus on managing chronic disease. Its International Diabetes Center promotes patient education and self-management and has shown the potential of these techniques.

PNHS views the PGP demonstration as an opportunity to continue innovating in care models that are proactive in maintaining health, not just reacting to acute problems. The fact that the demonstration is not narrowly focused is good because it allows innovation, flexibility, and a broader perspective on providing care. Narrow payment definitions lock care in place. For example, paying by visit codes creates a "tyranny of the visit" that limits the provision of the best care for the patient. PNHS is looking for value to be rewarded and wants to improve processes of care across the care continuum; its previous care coordination initiatives have not had a sustainable financial base. The demonstration provides PNHS with an opportunity to improve the support of individuals with chronic disease while enhancing financial performance.

Collaboration with the other PGPs participating in the demonstration was also attractive to PNHS. Medicare is a large and growing share of its patient base, and PNHS wants to take the waste out of care of its Medicare patients, which the PGP demonstration provides an opportunity to do.

3.2 Demonstration Strategy

PNHS intends to earn a PGP demonstration bonus on both quality and efficiency. It has invested $6–7 million in the demonstration. Its minimal financial goal is to cover the cost of these investments, including in particular the newly-implemented telephone-based heart failure care program (discussed in Section 4). PNHS is concerned about the PGP demonstration rule change that excluded the first 2 percent of measured savings from the PGP bonus calculations, and hence lowers participating PGPs' potential bonus, which equals a portion of measured savings.

PNHS decided to focus on avoiding admissions and readmissions for heart failure patients as the fastest way to save significant money under the PGP demonstration. Heart failure patients are costly, with many admissions and readmissions. Heart failure was the biggest opportunity for short-run cost savings. Improvements in, for example, diabetes care are possible, but will take longer to show savings.

PNHS prioritized demonstration quality indicators to focus on based on which ones make the most difference in improving patient care (what is the evidence for the effectiveness of an intervention?), how many patients are affected, how well PNHS providers are currently performing on the indicator (focus on improving poor-performing areas), and how many insurers want PNHS to do better in this area (focus on indicators that multiple payers are interested in).

3.3 Relationship to Group Practice Strategy

The PGP demonstration fits in well with PNHS's mission/vision and overall strategy of promoting efficient care across the care continuum. The PGP demonstration's goal of improving the efficiency of care is consistent with applying lean production techniques to Medicare FFS patients. Moreover, PNHS wants to improve the quality of care. Fewer care complications imply lower cost. "The best care is the cheapest care."

In addition, Methodist Hospital is running a high occupancy rate and PNHS would like to reduce Medicare admissions to free up beds for other uses. PNHS's goal is to create capacity through efficiency improvements so that it does not have to build additional infrastructure (e.g., hospital beds). The PGP demonstration facilitates the goal of reducing admissions by paying a bonus for resulting cost savings.

While PNHS was already engaged in quality improvement initiatives prior to 2004, the PGP demonstration strengthened their commitments to and expedited the implementation of certain QI initiatives (see Section 4.1). PNHS hopes that the lessons in achieving and monitoring quality learned from this demonstration can be applied later to commercial and Medicaid populations.

3.4 Leadership and Implementation Team

PNHS top management are all aware of and supportive of the demonstration, including the President/Chief Executive Officer. PNHS's Board of Directors receives regular updates on the demonstration. PNHS's demonstration implementation team is headed by its Executive Vice President/Chief Medical Officer and Vice President for Strategic Improvement. The team includes 13 other individuals, including the Chiefs of Primary and Inpatient Care, the Chief Financial Officer, the Vice President of Government Relations, the Director of the Health Research Center, and other clinical, information technology, and managerial personnel.

3.5 Implementation and Operational Challenges

Some specific implementation challenges are discussed in later sections of this report, for example, challenges in collecting quality indicators. At a general level, the PGP demonstration is one initiative among several that are being pursued by PNHS, such as lean production. Although these initiatives are consistent, they nevertheless compete for resources within the organization. PNHS is instituting change in care processes in several areas, but there is only so much change that an organization and its staff can absorb and respond to within a short time frame. PNHS has had relatively little time to "gear up" for the PGP demonstration.

A particular risk of the PGP demonstration is the lag between making the investments and receiving the bonus. That is, PNHS has to spend money upfront under the demonstration, for example to implement the heart failure care program and to collect the chart-based quality indicators, but any potential bonus will not be paid out until well after the performance year. Moreover, it is difficult to save money on medical care in the short run. The returns from improving care tend to accrue in the long-term, and may not be captured during the 3-year term of the demonstration.

SECTION 4
PATIENT CARE INTERVENTIONS

4.1 Heart Failure Care Coordination

PNHS established the goal of reducing heart failure admissions as its key response to the incentives of the PGP demonstration (see Section 3.2). To do so, PNHS created for the demonstration a completely new telephone-based heart failure care coordination program, "Park Nicollet Heart Failure Care Coordination with CHF Tel-Assurance." The heart failure telephone system was purchased from an external vendor, Pharos Innovations, in May 2005. The system costs $35 per patient per month, plus laptop computers for staff. It is staffed by a director and three nurse case managers, who are Park Nicollet employees (not Pharos employees). They cover PNHS's 20 primary care clinics; it was implemented on June 1, 2005.

PNHS chose the Pharos system because its own staff could manage and operate the system, and it felt that the vendor's software and track record were good. PNHS sees key advantages of its internal, "embedded" care coordination strategy over external disease management vendors who do not have a relationship with the patient. External vendors will not have the same medical information and will not have the same success in getting physicians to change their treatment patterns.

The Pharos system addresses patient adherence to medical/dietary regimes that contribute to 80 percent of heart failure admissions. It requires patients to call in to a 1-800 telephone number daily to enter their weight and to answer five simple yes/no questions (shortness of breath, swelling, etc.). Worrisome patient responses (e.g., weight gain of more than three pounds) trigger a "variance" in which case the patient is contacted by her case manager, who follows a protocol of how to address the situation (e.g., increase a diuretic medication, come in for an appointment). The goal is to proactively address patient decompensation to avoid need for a hospital admission. If patients fail to call in, they receive a reminder call.

Heart failure patients are enrolled from among those who have been admitted to the hospital and from lists of non-admitted patients seen in the outpatient clinics (particularly PNHS's Heart Failure Clinic). Case managers enroll hospitalized patients directly during their hospitalization, or consult with physicians and send out letters to invite enrollment by outpatients. High-functioning patients who are not very sick are excluded from enrollment, as are nursing home or hospice residents[4], patients with severe dementia lacking family support, and patients with severe aortic stenosis or pulmonary hypertension. The diagnosis of heart failure is "messy" (difficult to determine severity and/or chronic condition versus complication), and PNHS nurses validate such diagnoses in administrative data before inviting program enrollment.

Since the program's inception, 347 patients have been enrolled. Enrollment is not limited to Medicare patients, but most enrollees are Medicare eligibles. Hospitalized patients are very receptive to enrollment: 90 percent of invitees have enrolled. About half of invited outpatients have enrolled. Adherence to daily call-in among enrollees is good, above 90 percent, and retention in the program has been good. The only cost of the program to the patient is a

[4] Patients in assisted living facilities are enrolled.

$5 weight scale. The typical patient is in his or her 70s, with systolic heart dysfunction and on a diuretic and beta blockers. Many participants are in their 80s and 90s. Even "snowbirds" can enroll because this is a telephone-based call-in system.

Physician reaction to the system has ranged from enthusiastic "early adopters" to "resisters" who feel they do not need help managing their patients, to the bulk of cautious "wait and see adopters." PNHS management notes this is typical of physician responses to such initiatives. PNHS has some early evidence of effectiveness of the system in reducing 30-day readmissions, but these findings are preliminary and more data points are needed. PNHS is considering applying Pharos to "pre-heart failure" patients, other cardiac conditions, diabetes, and perhaps hypertension. Patient education about heart failure is done by a physician or case manager, but it is not part of the Pharos system.

4.2 Diabetes Care

PNHS has been working on diabetes care for a long time, their diabetes efforts are not new for the PGP demonstration. Also, the diabetes initiatives involve all patients, not just Medicare.

PNHS sees approximately 12,000 patients with diabetes. About 1,800 are in the Diabetes Innovation Pilot, which is an internally-funded 1 year grant. This began before the PGP demonstration and would have occurred without it. It is based on Wagner's chronic disease model to and is currently taking place in family practice and internal medicine at 12 clinics (total of 28-30 clinicians). As part of this pilot, PNHS has recently hired a "certified diabetes educator." She works "on demand" as she is called in by physicians to educate patients who have just been diagnosed about diabetes care. The goal is to keep patients' blood sugar within an acceptable range. She and another diabetes nurse case manager identify and intervene/educate patients at time/site of diagnosis, teaching patients about insulin injection, better management, nutrition, etc. The nurse manager complements the physician by helping patients get started on an appropriate pattern of self-management.

The nurse managers also help break the bottleneck of patients on oral medications who need to go on insulin therapy for better blood sugar management. Due to limited time availability of physicians, it is hard to make this transfer when needed. Now PNHS wants to get the diabetes educator out to all sites to assist in transitioning patients onto insulin. For more in-depth education and services, case managers refer to PNHS's International Diabetes Center.

PNHS's diabetes registry includes clinical, financial, and demographic information, and is used to provide monthly feedback to physicians about lab values, necessary tests, etc. Physicians are responsible for the ongoing measurement of diabetic blood sugar. Patients receive an automated letter twice a year informing them of their test values and are invited to come in for a visit. The benefit from the diabetes pilot is expected to be savings on dialysis, coronary artery disease, strokes, and heart attacks. But it takes 18–24 months to see reduced diabetes complications as a result of care management. There is no reimbursement for diabetes education/care management, which discourages it.

4.3 Other Patient Care Interventions

PNHS has a coronary artery disease program similar to its diabetes program. Patients with one or two claims diagnoses of coronary artery disease within 24 months are put into a registry. Patients in the registry receive bi-annual letters from PNHS with their test results and requesting that they come in for appointments, and physicians receive reminders about these patients.

PNHS is just starting a pilot health support model with about 15 patients. This consists of a 30 minute office visit with evaluation of needs, education, diagnoses, prevention measures, and fitness counseling.

Park Nicollet's implementation of the lean production model affords it the opportunity to redesign care processes, which may improve quality and efficiency and contribute to the goals and success of the PGP demonstration. For example, prompted by the lean production model, PNHS patient laboratory results are now available prior to the visit, so that when the patient is in front of his/her provider, the provider has the most updated and relevant values for assessment and treatment. Because the laboratory/pathology is readily available at PNHS, patients only need to come in a half-hour earlier to have their blood drawn; there is no need to make another trip to the doctor's office. In fact, having the diabetes registry, case managers can look up certain patients who have appointments and call them prior to the appointment and ask them to come in early for blood work. Calling ahead also helps to remind patients if they need to be fasting, so as to not waste a trip to the provider's office, money and time.

PNHS's patient care interventions include all patients with a condition, not just Medicare patients. PNHS's goal is to apply the same standardized care to all patients. They do not differentiate care by payer.

PNHS also has the following five programs that included Medicare FFS patients: (1) Living with Coronary Artery Disease; (2) Cardiac Club; (3) Insulin BASICs and Insulin Adjust; (4) Type II BASICs; and (5) Senior Health Services Program. These are a mixture of patient education programs and support groups.

SECTION 5
PROVIDER PARTICIPATION AND RELATIONS

5.1 Provider Education

Members of PNHS's demonstration implementation team visited PNHS's 20 primary care sites between June and September 2005. Staff physicians were informed of the 3-year demonstration project that has the potential for increased Medicare reimbursement if quality and efficiency are improved. The introduction of physicians to the demonstration emphasized the new heart failure Tel-Assurance program (described in Section 4 of this report). The demonstration was also discussed in departmental and administrative meetings, through e-mail, and through PNHS's intranet site. The leadership team is attempting to communicate through the physician managers of each care site. Nurses were educated about the demonstration as well as physicians.

The leadership team presented the PGP demonstration as being integrated with other PNHS initiatives. PNHS leadership expressed the desire to standardize best care practices among its physicians. This was the change expected from physicians, not just as a result of the PGP demonstration, but from all of PNHS's initiatives.

Physicians were most interested in the quality improvement aspects of the demonstration, less so in the efficiency component. Reaction varied from enthusiastic to skeptical. The PGP demonstration is just one of several major ongoing PNHS initiatives that staff physicians must absorb, and their time availability to focus on new initiatives is limited.

5.2 Provider Performance Support and Feedback

PNHS provides health maintenance alerts to its clinicians to assist them in prevention, coronary artery disease, and diabetes care. These include overdue tests or out-of-range lab values such as LDL test older than 1 year; A1c test older than 1 year; A1c level over 7; and reminders for preventive services such as mammography, PAP smears, colon cancer screening, and tetanus, pneumovax, and flu immunizations. Various disease registry and clinical feedback databases are used in these efforts to provide reminders to clinicians.

PNHS is an active member of the Institute for Clinical Systems Improvement (ICSI), which is its primary source for clinical guidelines. ICSI is an independent, nonprofit organization sponsored by six Minnesota health plans. It provides quality improvement services to 55 health care organizations, which collaborate on developing the care guidelines. ICSI's goal is to identify and promote the implementation of best clinical care practices. PNHS focuses on implementing four ICSI care guidelines each year, part of its general efforts to reengineer care processes. ICSI care guidelines are available to PNHS physicians on its intranet and in hardcopy form. PNHS reports that adherence of its primary care physicians to guidelines is good, but is less complete among specialists.

PNHS profiles its physicians, providing them with regular report cards comparing their performance to that of their peers. Feedback is confidential. Managers monitor these reports and occasionally discuss performance with a physician. But meetings of clinicians with managers to

receive performance feedback are not regularly scheduled. PNHS's strategy is "availability" of performance data for physicians, relying on physicians' desire to do better and be above average to drive improvement, not management pressure on poor performing individual physicians.

5.3 Provider Compensation and Incentives

PNHS physician compensation is mostly based on relative-value-unit-weighted productivity. No bonuses or specific financial incentives for providers related to the PGP demonstration have been established. Financial incentives are available for "directors", i.e., management. PNHS has found that if physician compensation is moved away from productivity, productivity noticeably declines. PNHS expects reengineering of care processes to drive attainment of the goals of the PGP demonstration, not financial incentives to individual physicians

Physician compensation is based on productivity and departmental costs (salaries, overhead). Physicians are eligible to participate in a pay for productivity plan 1 year from their hire date. Productivity is measured by production of services weighted by their relative values. Incentives are available after the first year of employment based on department rules and profitability. There is an incentive component to the pay program that is related to the revenue generation and direct costs of each department as measured by a contribution margin (net revenue less direct expense of department and allocations of indirect patient care expense and corporate overhead).

Compensation of physicians is also based on their participation in New Board Certification, teaching, research, presentations, committees, publications, innovation, medical societies, and civic and community service. Physicians are awarded points for participation in activities based on the complexity of the activity, and are then compensated based on points. Additional compensation is available for faculty supervision of residents and non-faculty supervision of residents. Stipends exist for physician leadership.

SECTION 6
DEMONSTRATION QUALITY INDICATORS

6.1 Appropriateness

PNHS feels that the PGP demonstration includes too many quality indicators, that are too complicated and with too many components. The individual indicators are generally appropriate, other than those, such as diabetic foot exam, that are difficult to collect. The demonstration appropriately focuses on primary care quality indicators. The demonstration focuses on coordinating chronic care, which is done by the primary care physicians, so specialty measures are not as relevant. There is so much variation in specialty care, it is difficult to develop comparable specialty quality indicators that are applicable across a range of specialties. The PGP patient assignment algorithm is also appropriate. Additional quality indicators that PNHS feels may have value include: aspirin prescription for diabetics; tobacco cessation counseling; patient satisfaction; heart failure hospitalization and rehospitalization rates; admission rates for ambulatory care sensitive conditions; and vascular complications/amputation rates for diabetics.

The multiple demonstration quality indicator thresholds are appropriate, because a single threshold would not be appropriate for all indicators. PNHS appreciates the quality improvement target threshold in particular. If targets are made unattainably high, physician interest in trying to achieve them may wane. Attaining high rates on chart-based measures is difficult because services are not always documented in the charts. Moreover, PNHS supports a progressive reward system for good performance. For example, performance achieving targets that are in the top deciles may be compensated at a higher level.

6.2 Improvement Strategy

PNHS's strategy for improving the quality indicators revolves around education and feedback to its primary care sites and physicians. This includes physician reminders, profiling/feedback, and patient lists. Demonstration staff provide feedback to the primary care sites about how well they are doing on demonstration diabetes quality indicators using a "red/yellow/green" color coded system. Demonstration indicators become performance metrics/goals in PNHS's "lean" production system and are monitored and promoted as part of that systemic effort.

6.3 Collection and Reporting

Prior to the PGP demonstration, PNHS was collecting some, but not all, of the demonstration quality indicators. Measures were previously collected in response to various other quality indicator reporting or pay for performance initiatives, or in response to internal physician champions of certain indicators. External initiatives include employer coalitions (the Leapfrog Group); the government (PNHS is participating in the CMS Premier hospital quality reporting demonstration); and Blue Cross/Blue Shield and other local health plans. These initiatives are related to diabetes, heart failure, hypertension, palliative care, depression, and hospital care measures, among others. Altogether, PNHS collects 134 measures that it reports for quality or pay for performance purposes. In short, the PGP demonstration has led PNHS to collect additional quality measures, but it was already collecting many of the demonstration measures for other initiatives.

PNHS has found some of the PGP demonstration's quality indicators difficult to collect. The demonstration requires abstracting 1,600 charts per quarter, which is very burdensome. Difficult to collect indicators include the diabetic foot exam indicator and the percentage of visits at which blood pressure was taken. PNHS does not feel that the value of these indicators justifies the difficulty of collecting them, and recommends that they be dropped from the demonstration. In general, PNHS strongly prefers quality indicators that can be collected from electronic/administrative data. For example, test results are easily collected because they are in database fields. Abstracting/reviewing transcriptions of verbatim medical records by hand is a very tedious/costly process, and care processes are not always documented in the medical record. PNHS is adding fields for some of the demonstration quality indicators to its electronic medical record, but this will take time to do. PNHS has hired an additional FTE staff member to work on PGP quality indicator abstraction/data.

PNHS would like to see greater data support for the demonstration from CMS and its contractors. If Medicare claims information is available to CMS or its contractors, participating PGPs should also have access to it. Timeliness of data availability is very important. Receiving data for last year is of little value. It would be useful if CMS could provide assigned beneficiaries' Social Security numbers rather than their CMS Health Insurance Claim Number (HICNO). One of the challenges of working with the assigned beneficiary data currently provided to PNHS by CMS, is that the information available for assigned beneficiaries is incomplete. PNHS is unable to track detailed information on assigned beneficiaries who receive care from other facilities (e.g., inpatient care). Improved data access to better understand resource utilization patterns of assigned beneficiaries receiving care outside PNHS would be useful under the demonstration.

SECTION 7
INFORMATION TECHNOLOGY

7.1 Strategy

Information technology is seen as a key strategic area by senior management. PNHS's integrated electronic medical record (described below) is a key competitive advantage. Information technology has been very well accepted at PNHS and is widely used. PNHS considers itself a "data driven organization." Training on systems is mandatory. PNHS purchases its software systems from outside vendors. It used to do in-house development, but that became too complex and expensive. PNHS's IT budget is $29 million with 180 staff. This represents 3.4 percent of PNHS's overall $850 million budget.

PNHS's information technology systems are used to support the PGP demonstration and other initiatives. But PNHS did not mention any major information technology initiatives that are specifically in response to its participation in the PGP demonstration. The demonstration resulted in some adaptations of existing systems, such as adding fields to the electronic medical record to collect certain demonstration quality indicators. The next section discusses PNHS's information technology systems and initiatives.

7.2 Systems and Initiatives

PNHS has an online Integrated Medical Record that provides a single record across clinic, hospital, and home care. Wherever a patient is seen, the care team can access records of prior care. This was a 3 year, $60 million project that began in 2001. The system is "LastWord" from IDX, which was bought by General Electric. In addition to the medical record, this project implemented computerized physician order entry (CPOE) and medication administration records on all hospital units. CPOE is not yet available in ambulatory care sites.

In an ambulatory setting, providers can view all lab values, radiographic and ancillary test results as well as problem lists, ambulatory medication lists, adverse drug reactions, immunizations, and "health alert" reminders. Computers are available in 95 percent of primary care exam rooms and are universally used; there are no paper charts.

PNHS has a data warehouse that includes selected lab test values, service dates, vital signs, ejection fractions, etc. PNHS is also establishing more disease registries, starting with heart failure and diabetes.

Current initiatives are focused on presenting more information at the point of care, providing more decision support at the point of care (currently this is rudimentary), secure messaging with patients, and CBOE for the ambulatory setting. Other current initiatives include document imaging and Picture Archival and Communications Systems (PACS) to enable online access to additional information.

APPENDIX A
AGENDA FOR PARK NICOLETT HEALTH SERVICES SITE VISIT

Site Visit Agenda for Park Nicollet Health Services
PGP Demonstration Evaluation by RTI

December 7, 2005

9:00–10:00 a.m.	Evaluation and Site Visit Background
10:00–10:30 a.m.	Park Nicollet History and Organizational Structure, Demonstration Participation and Strategy—Creating Value
10:30–10:45 a.m.	Break
10:45–11:45 a.m.	Quality Improvement
11:45 a.m.–12:30 p.m.	Lunch
12:30–2:00 p.m.	Patient Care Interventions
2:00–3:00 p.m.	IT Overview – We have the Systems in Place
3:00–3:15 p.m.	Break
3:15–4:30 p.m.	Provider Participation and Provider Relations
4:30–5:00 p.m.	Wrap-up