King County

Health Reform Initiative

2005 Measurement and Evaluation Report

September 2006

King County

Health Reform Initiative Policy Committee

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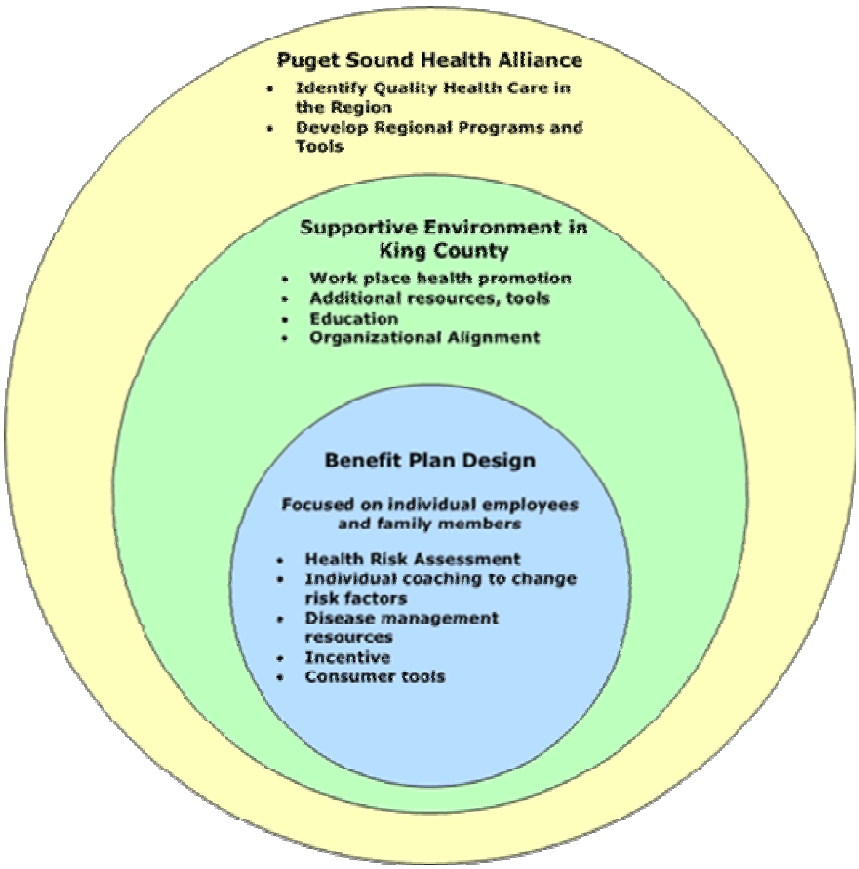
Executive Summary

The Health Reform Initiative (HRI) is a comprehensive effort to take an integrated approach to improving health and health care quality and managing health care costs—one that a) seeks to address the cost and quality issues in the health care system while at the same time b) supporting accountability within King County for creating a healthy workplace, and c) encouraging personal accountability on the part of employees and their dependents for adopting healthy behaviors and using health care resources wisely. It is based on solid research as well as the advice of respected experts in health, health care systems and organizational health promotion. Specific program elements of the HRI were designed in response to the 2004 recommendations of the King County Health Advisory Task Force (HAT Force). The HAT Force produced two reports that were reviewed by the Council and adopted by Motions 11890 and 12023.

The scope of the HRI includes both the programs King County can implement internally, and changes needed in the external marketplace to create a true, integrated health care system. The figure below illustrates the major elements of the HRI design:



The outer-most ring of the HRI is the Puget Sound Health Alliance (PSHA). King County was instrumental in the creation of the PSHA, and is a strong advocate for is mission and goals. Key services from the PSHA that directly support the HRI include clinical guidelines for physicians, hospitals and other health care professionals; decision-making tools for patients and consumers; regional reports on quality, cost and value; a regional database that can be analyzed for quality, cost performance, and health care improvement in the region; and a regional infrastructure to support sustained quality improvement.

The programs of the HRI internal to King County are shown in the two inner rings. These are the county's health benefit program design for 2007 - 2009 (the Healthy Incentives[SM] program) and the Education and Outreach program that creates a supportive environment to help employees and their dependents improve their health. This Measurement and Evaluation report is focused solely on the internal programs of the HRI.

The goals of the Health Reform Initiative's internal programs are ambitious—improve the long-term health of King County employees and reduce the rate of growth in King County's health care costs by one-third over the period of 2007 – 2009. The programs focus on moving employees and family members with higher risks to lower risk, keeping people with lower risk healthy, and teaching consumers how to make more effective health care choices. Prior to launching the Healthy Incentives[SM] program the county:

- Conducted a health and productivity analysis of current and predicted future health care utilization;

- Conducted a survey and focus groups of employees to determine the best way to engage King County employees and their families; and

- Developed a business case to estimate the expected cost-benefit of various interventions.

The county used the information from the survey and focus groups to develop the Education and Outreach program.

In 2004, the executive's benefits philosophy—keeping employees healthy, teaching employees to make more effective health care choices, and reducing health risks—was reviewed and endorsed by the King County Health Advisory Task Force. The Council also reviewed the benefits philosophy and approved the King County Health Advisory Task Force Initial Findings Report that included the executive's benefits philosophy (Motion 11890).

The county used the business case (which was adopted by Council Motion 12131) to test options for designing the 2007 – 2009 benefits plan. Based on the results, the county and labor negotiated a package of pilot programs for managing claims costs and the wellness assessment and individual action plan design to reduce individual and population health risk related to current tobacco use, high blood pressure, high cholesterol, physical activity less than 3 times per week, poor nutrition, high stress/poor

well-being, high alcohol use or a body mass index greater than 26. The business case indicated that while these strategies should lead to significant cost trend reduction, additional interventions would be needed to fully reach the goal. Therefore two changes in health plan design, an increase in emergency room co-pay and a $35 per month benefit access fee, were added.

An essential component of the HRI is the design and implementation of a comprehensive measurement and evaluation system. This system will provide the county with information it needs to assess the effectiveness of each of the internal HRI interventions and determine whether the initiative as a whole is contributing to employee/dependent long-term improvements in health and slowing the projected increases in medical care costs.

In addition, the evaluation will provide critical information that will enable the county to recommend and negotiate with labor design improvements in the HRI interventions during the implementation period. This approach to plan, launch, check, and adjust, is a well-established methodology for ensuring that ongoing enhancements in program design occur in order to achieve improved results.

Although complete evaluation results will not be available until 2010, the evaluation process will yield important information that the county and labor can use to make design improvements in the HRI interventions during the implementation period. Generally speaking, evaluation results are expected to progress as follows: establish baselines in 2005, derive Indicative Findings in 2006, Directional Guidance in 2007, Early Trends in 2008, and Program Trends by 2009-2010.

Evaluation Timeline

Results	Period	Comment	Report
Baseline	2005	Establishes reference point for measuring changes	August 2006
Indicative Findings	2006	Early point estimates too preliminary to signal directional change	August 2007
Directional Guidance	2007	Initial indications of serial results that could represent emerging trends	August 2008
Early Trends	2008	Likely emerging trends	August 2009
Program Trends	2009-2010	Statements of cumulative change, 2005-2009	August 2010

2005 – Setting the Baseline

Healthy Incentives℠ Program

As noted in the table above, 2005 is a baseline year. Focus was on establishing programs and interventions, educating employees and their family members, and initiating engagement with the concepts of creating a healthy work place and taking personal accountability for maintaining health. These interventions are expected to become the basis for long term improvement in health for the King County employee population that over time will result in a lower health care cost trend rate than the county would have seen if it had not made this investment in improving health.

Key activities in 2005 included:

- Finalizing the details of the 2007 – 2009 Healthy Incentives℠ program.
- Launching pilot versions of components of the Healthy Incentives℠ program that provide support to employees and family members who have serious or chronic health conditions and need assistance in managing those conditions.[1]
- Launching the Education and Outreach program for health promotion in the workplace.
- Determining the evaluation approach and logic models for the measurement of both the Healthy Incentives℠ program and the Health Promotion/ Education and Outreach programs.
- Determining sources for data.
- Establishing the database and the process for obtaining, normalizing and integrating the data from multiple sources.
- Developing and testing the measurement methodology.
- Calculating first year baseline information.

The first intervention programs of the HRI aimed at improving health and health care quality and managing costs were launched on a pilot basis in January, 2005. These include:

- Nurse advice line (provides current, reliable information on health-related issues 24-hours a day).

[1] These programs were purchased from Aetna for the KingCare℠ program. Group Health has services similar to these embedded into their integrated model for delivering patient-centered care.

- Disease management (provides ongoing support and education to members with specific chronic conditions—chronic heart failure, coronary artery disease and diabetes).

- Case management (telephone outreach to members needing hospital or other specialized care).

- Provider best practice (provides evidence-based treatment information to providers).

- Performance provider network (identifies efficient physicians in defined specialty practices).

The nurse advice line was implemented based on the results of an in-depth employee survey and focus groups conducted in May of 2004. Participants consistently listed access to a 24/7 nurse advice line as their preferred resource for self-care.

The three disease management programs were selected because the Health and Productivity analysis conducted in July of 2004 found these conditions are prevalent in the employees and dependents covered by health plans, and are significant factors in the health care expenses of the 5 percent of claimants in the health plans who accounted for 58 percent of the medical and pharmacy costs.

The case management, provider best practice, and performance provider network programs use medical and pharmacy claims, lab results, and special modeling technology to identify opportunities to improve the health care the member is receiving.

In this baseline year key results are focused on participation levels in the five new programs. The county has been successful in educating employees and their dependents about these new programs and consequently participation levels exceed the levels achieved by other employers in Aetna's book of business.

Nurse Advice Line (Informed Health Line®)

The Informed Health Line is available to members 24 hours a day, 7 days a week via a toll-free telephone number. Registered nurses guide callers through a decision model to help the caller determine whether their condition can be treated at home, requires a provider office visit, or requires immediate attention in an urgent care center or hospital emergency room.

King County employees and their families used the nurse advice line at twice the rate of other employers who subscribe to Aetna's Informed Health Line. Nearly 42 percent of callers asked for general health information, and 35 percent requested information on self-care or home treatments. Only 5.7 percent of calls were for assistance in deciding if the member needed to go to the emergency room or could wait to make an appointment for an office visit. Information about utilization of the nurse advice line is summarized below:

Informed Health Line – 2005 Utilization	
Total calls handled	1,232
First time callers	978
Annualized calls for every 100 eligible households	12.3%
Aetna book of business annualized call rate	5.6%
#1 reason for call –request for health information	41.8%
#2 reason for call—request for information on self-care/home treatment	35.1%

Disease Management

The disease management program directs focused support and resources toward members with chronic heart failure, coronary artery disease and diabetes in order to improve health status and quality of life. It provides education for both the member and provider. Educational services for the member include written materials and telephone coaching calls to help the member to identify and address health risk factors associated with their chronic condition. The frequency and intensity of these education services is based on the member's individual level of risk. Members in the highest risk group (Level 5) have at least a 20 percent chance of experiencing an acute exacerbation of their conditions within the upcoming year, and are at least 10 times as likely to have a sudden onset of complications in the next year compared with members at Level 1.

King County members identified as having chronic health disease, coronary artery disease (CAD) or diabetes participated in the disease management programs at slightly higher rates than members in other plans in Aetna's book of business.

The table below shows the number of KingCare members who have been flagged as having one of the target diseases along with participation statistics.

Disease Management Participation Statistics

Condition	Invited Members with Condition	Members Participating in Disease Management Program	Members receiving "high touch" disease management (telephone consultations)	Members receiving "educational" disease management (mailed a semi-annual newsletter)	Members Who Have Not Yet Selected Participation Level (Receiving No Disease Management)	Percent of Invited Members who Have Chosen to Participate and Have Chosen Participation Level
Congestive Heart Failure	175	131	14	105	12	68%
Coronary Artery Disease	291	182	13	160	9	59%
Diabetes	1,182	1,078	30	1,032	16	90%
Total	1,649	1,391	57	1,297	37	82%

Case Management (Enhanced Member Outreach℠)

A standard part of the services that KingCare℠ purchases from our medical claims administrator is a review of cases and some interventions to avoid unnecessary claims. The Enhanced Member Outreach (EMO) program supplements Aetna's standard case management program through the use of additional clinical resources from medical and pharmacy and lab results data to identify members who are at greater risk because they are going into the hospital, getting ready to leave the hospital, or have a claims history that indicates presence of an uncontrolled chronic condition or other risk factors. Specially trained EMO nurses call these members to encourage them to work closely with their health care providers and follow their treatment plans.

The EMO nurses identified 1,138 unique members whose claims profiles indicated they qualified for the EMO services. The EMO nurse was able to successfully contact 799 of those members for a 70 percent completion rate. (The EMO program is a new service from Aetna that started in fourth quarter 2004. It is based in downtown Seattle, and thus there are not yet many employers who have this program, so book of business comparisons are not yet available.)

Provider Best Practice (MedQuery®)

MedQuery uses claims history, current medical claims, pharmacy, laboratory, physician encounter reports and patient demographics along with evidence-based treatment recommendations to find possible errors, gaps, omissions (*e.g.* certain accepted treatment regimens may be absent) or co-missions in care (*e.g.* drug-to-drug or drug-to-disease interactions.) When MedQuery identifies a member whose data indicates that there may be an opportunity to improve care, outreach is made to the treating physician based on the apparent urgency of the situation.

In 2005 the MedQuery program identified 3,213 instances where the claims data indicated a variation from best practice protocols and the member's physician was notified and provided the information. Sixty two of these instances were judged to be Severity Level 1--clinically urgent, meaning immediate action is needed to prevent serious harm or even death. The distribution of severity levels of cases for King County members versus Aetna's book of business (BOB) is shown in the table below.

MedQuery—2005 Utilization			
Severity Level	***# of Physician Contacts***	***% of Total for King County***	***% of Total for Aetna BOB***
1—Clinically Urgent	62	1.93%	2%
2—Clinically Important	2,172	67.60%	76%
3—Clinically Notable	979	30.47%	22%

Early claims data indicate that 36.8% physicians contacted by MedQuery reviewed their treatment plans, determined there were no mitigating circumstances not shown in the claims data and made the changes recommended in the MedQuery best practice protocol.

Performance provider network (Aexcel®)

The Performance provider network is comprised of Aexcel-designated specialists, participating primary care providers, and hospitals and physicians in non-Aexcel-designated specialties. The overall cost of care delivered within Aexcel-designated specialties is evaluated based on certain measures of volume, clinical performance and cost-efficiency measures.

Approximately 79 percent of KingCare members who visited specialists in 2005 used specialists who are in the Aexcel network. There are no incentives in the plan to "push" members towards using Aexcel network providers (*e.g.* lower co-insurance than if the member used a non-Aexcel specialist).

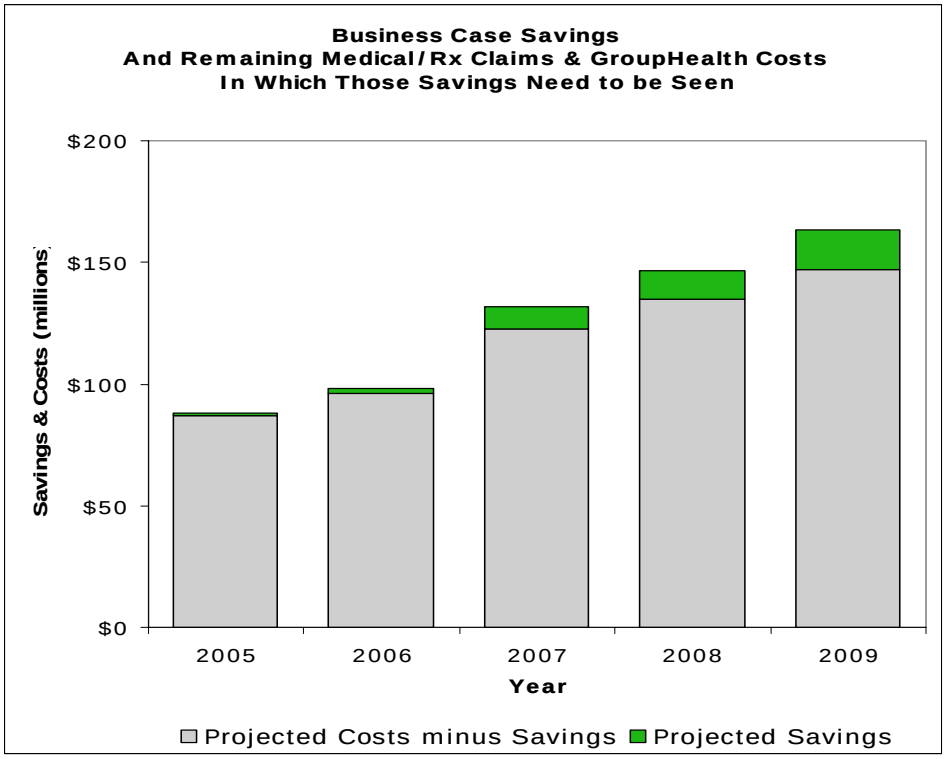
Overall Effect of the Pilot Programs on Claims in 2005

Although the major focus in 2005 was on launching programs and encouraging member participation, the county did conduct a detailed analysis of claims incurred in 2005 compared to claims in the 2002 – 2004 period to 1) test the database and establish the process for obtaining, normalizing and integrating the data from multiple sources, and 2) see if there were early patterns showing some level of correlation with these programs.

Overall, in 2005, medical billed claims for employees continued the 2002-2004 trend (9.81% from 2002 to 2003 and 9.66% from 2003 to 2004). Pharmacy claims for employees showed less than the 14% growth seen in 2003 - 2004, producing approximately $580,000 in savings, but the percent increase was within a margin of error of the estimated baseline growth. There was no statistically significant deviation from the pharmacy claims trend, so the 2005 savings can be reasonably attributed to random variations. Total incurred medical and pharmacy claims in 2005 (based on claims processed January 1 through May 31, 2006) was $88 million. (Because approximately 1% of claims incurred in 2005 will be reported in the second half of 2006 and in 2007, this report estimates 2005 claims by adding 1% for claims that will appear later.)

The business case[2] for the HRI estimated that there would be small net savings in 2005 from the implementation of the five pilot programs in the KingCare[SM] health plan. The total savings minus the cost of the programs was expected to be approximately $1.1 million.

[2] See King County Health Reform Initiative Measurement & Evaluation Reports 2005 Technical Appendix for detailed discussion of data and findings.



As the chart above illustrates, the amount of expected savings in 2005 ($1.1 million) versus the total amount of medical and pharmacy claims ($88 million) is quite small. The amount of saving from all HRI programs, according to the business case, is projected to grow each year. Concluding that the HRI has or has not had a significant impact on claims costs will be more apparent in future years when more data are available and when projected savings are a larger proportion of total costs. It is too early to detect with certainty whether or not the expected net savings occurred.

Education and Outreach

Communications and outreach activities that are part of the comprehensive health promotion strategy were in the planning and early implementation stages in 2005. Program elements inaugurated in 2005 include:

- **First annual Leadership Forum**, May 2005. Over 200 leaders and managers from all parts of the King County organization met to become informed about the Health Reform Initiative and learn about their role in making King County a healthier organization.

- **First annual Health and Benefits Fair**, September 2005. Approximately 2,000 employees attended.

- **Onsite flu shot program,** November 2005. Over 3,000 employees received flu shots at various work location around the county. The flu shots were free of charge to benefits-eligible employees.

- **Manager Toolkits.** The following toolkits were created to prepare managers for the Healthy Workplace Funding Initiative that began in 2006: *Resources for Soliciting Feedback from Employees* and *Effective Partnerships with Represented Employees.*

- **Eat Smart programming.** Partnerships were established with operators of vending machines at a number of King County worksites to add healthier snacks to vending machines. Work also started on getting a contract for an on-site weight management program. (In March of 2006 the contract was awarded to Weight Watchers at Work).

- **Move More programming.** During August and September, King County employees were invited to participate in Walk Fest 2005, a pilot program that encouraged employees to walk more. (Additional programming was added in 2006).

- **Comprehensive education** programming to prepare employees for the wellness assessment and individual action plan components of the Healthy Incentives[SM] program. Health Matters partners conducted a series of "road shows" that were presented at worksites all over the county and also made available on DVD and on the county's website. These road shows explained the cost and quality crisis, the direct effect on both King County and county employees, and how improving one's personal health is an effective cost control intervention. This prepared employees to participate in the wellness assessment and individual action plan program in 2006.

- **Health Matters newsletter.** The first issue of the monthly newsletter was sent to each employee's home in December, 2004. The Education and Outreach team prepares a number of King County-specific articles for each issue.

Measurement of the effects of the Education and Outreach program will begin in 2006 with surveys that will focus on employees, spouses and partners, as well as managers and supervisors.

Conclusions

The county was successful in launching the pilot programs for the Healthy Incentives[SM] Program and encouraging better than expected participation rates in both the pilot programs for the Healthy Incentives[SM] program and the Education and Outreach efforts (particularly in attendance at the worksite-based education sessions designed to prepare employees for the wellness assessments that would start in 2006.) Indications from 2005 activities are that employees and their dependents are starting to take note of the messages about the crisis in health care quality and cost, and the role they have to play in managing their personal health. It is still too early to see this new thinking reflected in measurable changes in the 2005 claims data.

Chapter One

Background

History

King County, like other employers locally, regionally and nationwide, is facing continued double-digit increase in health care costs for the foreseeable future. If nothing is done, the county's benefits costs would be expected to double to $300 million by 2012. Past efforts at health care cost containment have been focused almost exclusively on controlling the "supply side" by limiting access to providers through managed care, contracting with providers for reduced fees, and after-the-fact utilization review. These approaches by themselves have not stemmed the cost trend.

There is an increasing realization that to achieve more effective cost containment employers like the county need to also focus on reducing the "demand side" of health care. Strategies for reducing demand include moving employees and family members with higher risks to lower risk, keeping people with lower risk healthy, and teaching consumers how to make more effective health care choices. The expectation that prevention and disease management will result in overall cost savings for employers stems directly from evidence that many leading causes of disability and premature death in the United States are potentially avoidable or controllable, including most injuries, and many serious and acute chronic conditions. For example, the National Institute of Health Diabetes Prevention Program study showed walking 30 minutes a day and losing 5 to 10 percent of body weight reduced the incidence of type 2 diabetes by 60%.

Given this background the King County executive proposed a benefits philosophy aimed at reducing demand for health care services by:

- Keeping employees healthy.
- Teaching employees to make more effective health care choices.
- Reducing health risks.

In 2004, the executive's benefits philosophy was reviewed and endorsed by the King County Health Advisory Task Force. The Council also reviewed the benefits philosophy and approved the King County Health Advisory Task Force Initial Findings Report that included the executive's benefits philosophy (Motion 11890).

As noted in the Health Advisory Task Force report, there are four components that are critical to the success of the county's efforts to reduce the demand side of health care costs:

1. Build a strong organizational alignment to aid/encourage health promotion in the workplace.

2. Develop and sustain an active, well-executed communication program aimed at both employees and their spouses/domestic partners.

3. Design a health care plan that rewards and reinforces member accountability for health and health care related decisions and actions.

4. Implement widely available tools to support the delivery of health education and benefits information.

The county is not alone in facing rapidly escalating medical care costs for its employees and their dependents. Businesses and governments across the nation are seeking new and improved methods of helping their employees and their dependents improve or sustain good health, and to effectively manage their health care conditions. This has led to increased attention to the development and evaluation of health promotion and health care management interventions that address both employee/dependent health and the associated medical care costs.

This approach is proving effective in other organizations because many times a relatively small proportion of employees and their dependents account for a large share of an employer's medical care costs. For example, a July 2004 Mercer Human Resources Consulting study indicated that 5% of the members in the county's KingCare℠ [3] Plan accounted for 58% of the total plan costs and 20% of the members were responsible for 83% of the plan's costs. Correspondingly, 80% of the plan members used only 17% of the resources.

The county realized that the escalating cost of medical care would not abate unless it implemented a comprehensive effort to address some of the important underlying causal factors:

- Heart disease and certain types of cancer are the leading diagnoses among county employees and dependents with the most expensive medical claims.

- The high body mass index, high rates of tobacco use, and high blood pressure prevalent in the county population are significant contributors to chronic disease and the associated costs.

- An estimated 50% of the risk for conditions common in the county population is related to lifestyle and health behavior (Centers for Disease Control estimates).

Given this background, in 2004 the county launched the Health Reform Initiative (HRI) a comprehensive, integrated effort to tackle both the problems in the health cares system itself and the ever-increasing utilization of health services by county employees and their families.

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[3] KingCare℠ is the name of the county's self-insured medical plan that covers approximately 80 percent of benefits-eligible employees and their families. The KingCare℠ plan in 2005 was administered by Aetna for medical claims and Caremark for pharmacy claims. The other 20 percent of employees are covered by the Group Health Cooperative HMO plan.

Health Reform Initiative

The scope of the HRI includes both the programs King County can implement internally, and changes needed in the external marketplace to create a true health care system designed to improve the quality of care and reduce health care costs by promoting coordination of care across providers, encouraging the use of evidence-based treatment guidelines, and creating a system of quality measurement used by all providers, health plans and health plan sponsors in the region. The conceptual framework of the HRI is presented in Figure 1.

Conceptual Framework of the Health Reform Initiative

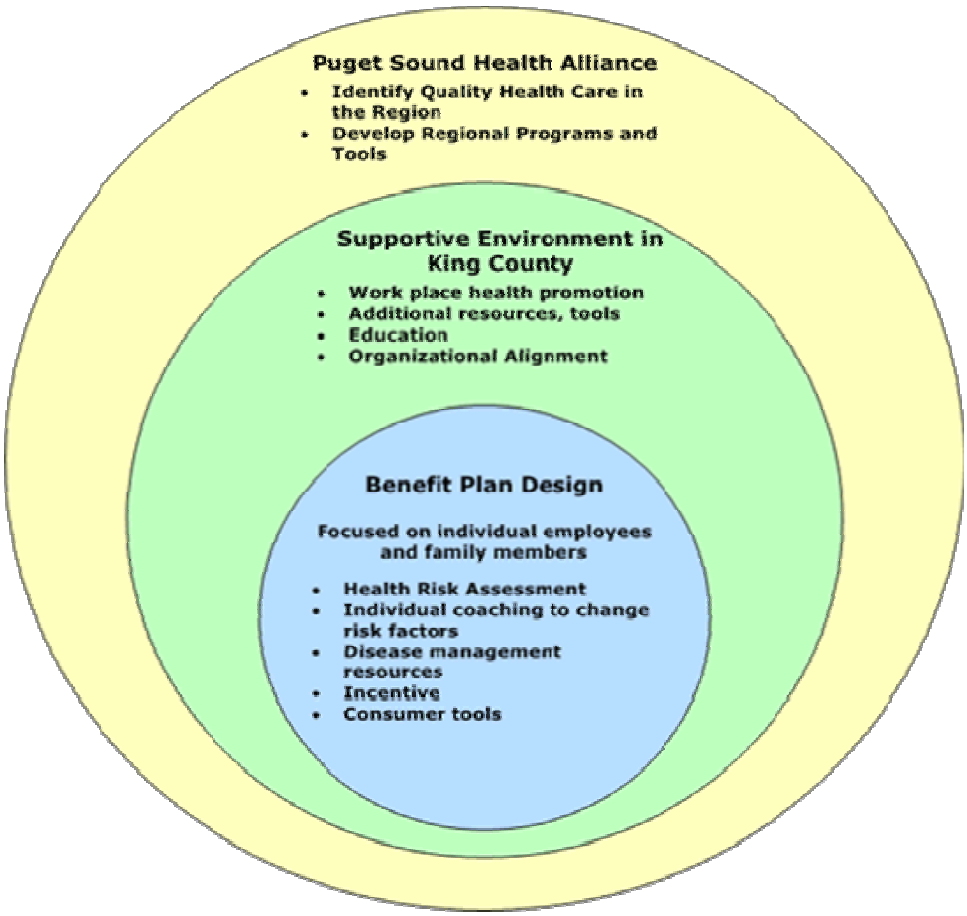

Figure 1

The Healthy Incentives[SM] Benefit Plan Design

At the heart of the HRI is the Healthy Incentives[SM] health care benefit plan. Prior to launching the Healthy Incentives[SM] program the county:

- Conducted health and productivity analysis of current and predicted future health care utilization;
- Conducted a survey and focus groups of employees to determine the best way to engage King County employees and their families; and
- Developed a business case to estimate the expected cost-benefit various interventions.

The county used the business case (which was adopted by Council Motion 12131) to test options for designing the 2007 – 2009 benefits plan. Following the business case, the Health Reform Initiative Policy Committee developed a set of criteria to be used in designing and negotiating benefit plans with the Joint Labor Management Insurance Committee[4] (JLMIC). Two key directives were:

- Improve the health of county employees and their dependents.
- Reduce the rate of growth of medical plan costs by one-third (which would produce $40M in savings from what health care would have cost if there were no interventions for the 2005-09 benefit plan years).

To those ends, in 2005 the county and the Joint Labor Management Insurance Committee negotiated the Healthy Incentives[SM] benefits package that includes 1) programs for disease management, expanded case management, nurse advice line, provider best practice care considerations, and high performance specialist network and 2) an expanded range of program offerings that include individual wellness assessments and targeted follow up through individual action plans to encourage changes to healthier behavior.

The official time period for the Healthy Incentives[SM] plan is 2007 – 2009; however the county and the unions agreed to a phased-in approach that started two years before the "official" program. In 2005, the county added several programs to its self-insured plan including a 24/7 Nurse Advice Line, disease management programs, and an active outreach program for members who are about to undergo an inpatient hospital stay, are getting ready to come home from an inpatient stay, or have medical indications that they may experience a high risk event in the next 12 months.

[4] The Joint Labor Management Insurance Committee is comprised of eight union representatives selected by the King County Labor Coalition (representing approximately 25 unions with over 92 bargaining units) who meet with management representatives to negotiate the benefits packages that are offered to employees. The King County Police Officers' Guild bargains a separate benefit package with the county through its collective bargaining agreement. Approximately 87 percent of the county's workforce is represented.

In 2006, the program starts to focus on both "healthy" and "at risk" employees and their spouse/domestic partners. All benefit-eligible employees and their spouses/domestic partners are eligible to take a wellness assessment that focuses on health behaviors such as nutrition, physical activity, perception of stress, use of tobacco and alcohol, safety habits (such as wearing seat belts when traveling in an automobile) and health consumer habits (such as getting age and gender-appropriate screenings.) This wellness assessment measures the member's level of risk[5], openness to making behavior change in each area, and the member's confidence in his/her ability to make a change.

Participation in the wellness assessment and individual action plans is voluntary, however there are financial incentives attached to participation. Members who take the assessment and participate in an individual action plan in 2006 will be eligible for the gold out-of-pocket expense level in the health plan in 2007. Members who take the wellness assessment but do not participate in an individual action plan will be eligible for the silver level, and members who do not take the wellness assessment will only be eligible for the bronze of out-of-pocket expense level. The benefits covered by each out-of-pocket expense level are the same; the only difference is amount the member pays for services. (Please note: King County pays the entire health plan premium for the employee and family.) Table 1 illustrates *some* of the differences in out-of-pocket expenses for the county's two health plan choices:

Healthy Incentives℠ Program

	KingCare℠		Group Health	
	Annual Deductible	Co-insurance*	Office Visit Copay	Hospital Copay**
Gold	$100/ind. $300/family	10%	$20	$200
Silver	$300/ind. $900/family	20%	$35	$400
Bronze	$500/ind. $1500/family	20%	$50	$600

*In-network provider
** Per inpatient stay

Table 1

[5] High risk is defined as self-reporting any current tobacco use **or** three or more of the following conditions: high blood pressure, high cholesterol, physical activity less than 3 times per week, poor nutrition, high stress/poor well-being, high alcohol use or a body mass index greater than 26. Moderate risk is defined as self-reporting two of these factors, and low risk is defined as reporting zero or one risk factor.

Figure 2 illustrates the process for earning eligibility for lower out-of-pocket expenses:

How the Healthy Incentives℠ Works

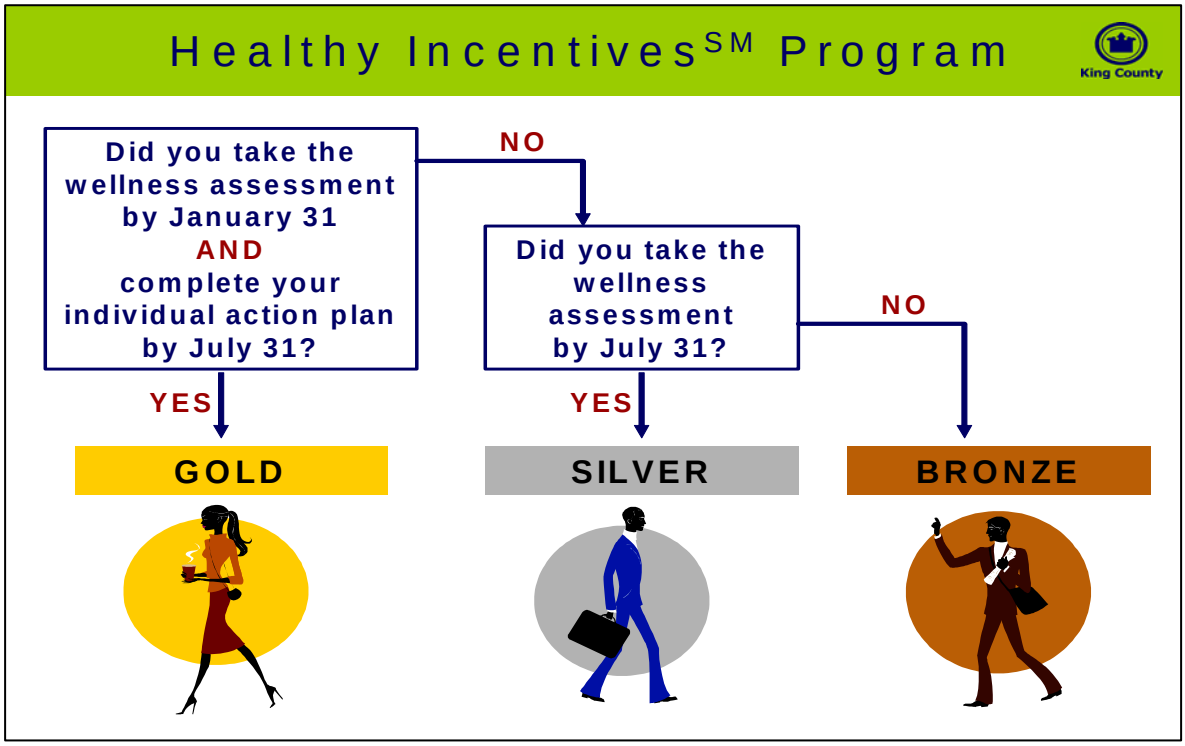

Figure 2

In 2007, 2008 and 2009 the program repeats itself – members who take the wellness assessment and participate in an individual action plan to improve their health habits in 2007 will earn lower out-of-pocket expenses in 2008, and so on.

Under the rules negotiated in 2005, participation in an individual action plan is defined as follows:

- Members who are identified as "low risk" are already engaging in health-related behaviors that are shown to reduce risk of chronic disease—such as eating right, exercising regularly, avoiding tobacco use and managing stress. These members complete eight weeks of logging of their activities related to nutrition or physical activity.
- Members who are identified as being at "moderate" or "high risk" enroll in a telephone-based coaching program for at least 90 days during which they participate in at least three coaching sessions (with follow-up activities between coaching sessions). Members are encouraged to continue participation for up to six months for moderate risk and 12 months for high risk members.

It is essential to note that earning the lowest out-of-pocket expense levels is based on participation, not the achievement of a specific health status or outcome. The goal is foster success in making significant, life-long changes in health-related behavior.

Education and Outreach and Worksite Health Promotion

In order to maximize the participation in, and reinforce lasting health behavior changes from the Healthy Incentives[SM] program, the county has also implemented a comprehensive health promotion strategy. This is the middle ring of the framework; it contains worksite-based strategies and programs to support health and healthy employees, and the education and outreach programs designed to engage both employees and family members as informed health care consumers.

The vision and goal of the Education and Outreach program is to create an organization that recognizes the value of healthy employees in delivering services to our community. Program elements are designed to build investment in health promotion; empower employees to participate in worksite-based health promotion activities; provide incentives and rewards for participation in health promotion programs; and educate managers, supervisors and employees on their respective roles, responsibilities and opportunities in creating a healthy, productive working environment.[6]

The Education and Outreach program is based on a learning model approach to change that goes well beyond simply providing information to employees and their family members. It is built on the basic hypothesis that employees/dependents will make positive changes over time, provided they have access to information that supports their change process. This approach, therefore, builds in progressive levels of information and involvement on the part of employees/dependents, timed in such a way as to enable them to take action and sustain that action over time. The stages in this approach are:

- **Learn It!** focused on providing information aimed at increasing employee awareness of the impact of health issue on cost, productivity and quality of life.

- **Believe It!** focused on increasing personal commitment to "get healthy and stay healthy".

- **Do It!** focused on motivating actual behavior change.

Studies in other organizations show that focusing education and outreach only at the employee level is not enough,[7] The county must align its organizational practices to support improved health among its employees. This change in philosophy and practice

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[6] The World Health Organization defines a healthy workforce as characterized by four key attributes to achieve optimal performance. Individuals and organizations must be:

1. **Healthy:** demonstrating optimal health status as defined by positive health behaviors, minimal modifiable health risks and minimal illnesses, diseases and injuries.
2. **Productive:** functioning to produce the maximum contribution to achievement of personal goals and the organization's mission.
3. **Ready:** possessing an ability to respond to changing demands given the increasing pace and unpredictable nature of work.
4. **Resilient:** adjusting to setbacks, increased demands or unusual challenges, and returning to optimal "well-being" and performance without severe functional decrement.

[7] Lowe, Graham S. *Healthy Workplace Strategies: Creating Change and Achieving Results.* Report prepared for the Workplace Health Strategy Bureau, Health Canada, 2004 (www.grahamlowe.ca)

will take time to accomplish. However, without this change, the other employee/ dependent interventions may not be as effective. Therefore the Education and Outreach program also includes strategies and programs designed to align the organization's practices with the goal of creating healthy employees. The goals for this aspect of the Education and Outreach program are:

1. Create a workplace that provides active support for employees' investment in improving and/or maintaining their health status.

2. Increase employee participation in workplace-sponsored health improvement activities.

3. Reduce the ways in which the workplace contributes to the deterioration of employees' health status.

4. Address the workplace-related causes of employee health problems, both acute and chronic.

5. Address the medical costs associated with preventable deteriorations in health status.

The HRI's organizational alignment interventions are built on a learning model that parallels that of the employee/dependent intervention. This model reflects the current research regarding how organizational changes can enhance the effectiveness of employee health promotion and cost containment efforts. The stages for the organizational alignment approach are:

- **Learn It!** focused on increased awareness about how organizational factors can positively affect employee health, productivity and work quality.

- **Believe It!** focused on increased commitment to aligning organizational factors that support health, healthy employees and improved business results.

- **Do It!** focused on making the changes in the organizational alignment that are needed to support health, healthy employees and improved business results.

Puget Sound Health Alliance

In the conceptual framework of the HRI (see Figure 1), the outer-most ring is the work of the Puget Sound Health Alliance (PSHA). As a part of the development of the HRI, the county provided leadership in the creation of the Puget Sound Health Alliance (also referred to as "the Alliance"). Formed in late 2004, the Alliance is a private non-profit organization that resulted from recommendations by the King County Health Advisory Task Force. The Alliance is a complementary effort that will enhance the impact of the HRI on the health of the county's employees and their dependents. The internal programs of the HRI focus on county employees/dependents, and on building the county as a work environment that supports better health. The Alliance is putting in place a

broad-based strategy that will improve the quality of our region's health care providers and systems, provide tools that will help health care consumers make use of high quality providers and systems, increase the role of prevention in helping consumers stay in good health, and contain health care costs.

Key services from the Alliance that directly support the HRI include clinical guidelines for physicians, hospitals and other health care professionals; decision-making tools for patients and consumers; regional reports on quality, cost and value; a regional database that can be analyzed for quality, cost performance, and health care improvement in the region; and a regional infrastructure to support sustained quality improvement.

This mission is captured in the Alliance's vision, mission, goals, and products and services:

Vision

A state of the art health care system in our region that consistently achieves healthier people, high quality health care and affordable costs.

Mission

To forge a sustainable leadership alliance among patients, providers, purchasers, and health plans to design and implement an innovative, high quality, and affordable health care system in the Puget Sound region.

Goals

1. Improve the quality of health care provided throughout the five-county region (King, Pierce, Kitsap, Snohomish, and Thurston Counties).

2. Improve the health outcomes for people living and working in the region.

3. Slow the rate of increase in health care expenditures experienced by consumers and purchasers of health care throughout the region.

4. Improve the ability of the region's consumers and health care professionals to become partners in managing health.

5. Ensure that evidence-based health care decision-making becomes the norm throughout the region.

6. Develop a regional ethic that incorporates collaborative approaches into health care quality improvement efforts. Collaboration and synthesis guide the Alliance's work, rather than duplication of effort and competition.

Products and Services

The Alliance's broad focus on providers, consumers, health plans, and purchasers will result in the development and implementation of a variety of products and services that will create the structures and information required to continuously measure, analyze, report, and communicate critical information regarding the performance of our region's health care systems. The Alliance is currently in the process of developing the following products and services:

- A shared repository of clinical guidelines for providers.
- A shared repository of tools for consumers/patients.
- A data repository/warehouse.
- Regional reports on quality and cost.

A regional infrastructure to support quality improvement.

Measurement and Evaluation of the HRI

An essential component of the HRI is the design and implementation of a comprehensive measurement and evaluation system. This system will provide the county with information it needs to assess the effectiveness of each HRI intervention and determine whether the initiative as a whole is contributing to employee/dependent health and slowing the projected increases in medical care costs.

In addition, the evaluation will provide critical information that will enable the county to recommend and negotiate with labor design improvements during the implementation period. This approach to plan, launch, check, and adjust is a well-established methodology for ensuring that ongoing enhancements in program design occur in order to achieve improved results. Figure 3 below depicts this process.

How the Healthy Incentives[SM] Works

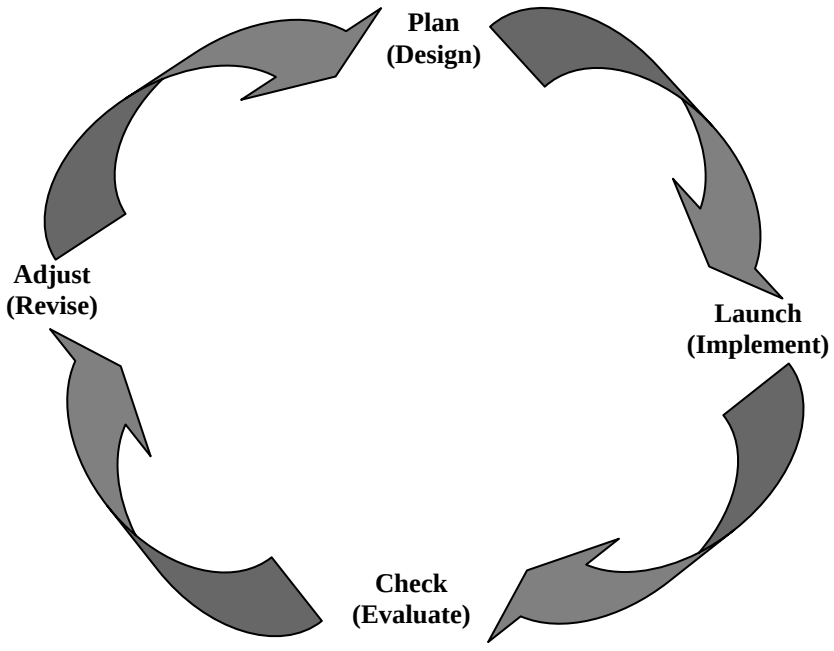

Figure 3

Evaluation Timeline

The timing outlined in the plan, launch, check and adjust cycle leads to an interval between the initiation of HRI interventions and the ability to make definitive statements regarding their effectiveness. However, while complete evaluation results will not be available immediately, the process will yield important information that county and labor can use to make adjustments. Generally speaking, evaluation results can be expected to do the following: establish baselines in 2005, derive *Indicative Findings* in 2006, *Directional Guidance* in 2007, *Early Trends* in 2008, and *Program Trends* by 2009-2010.

Evaluation Timeline

Results	Period	Comment	Report
Baseline	2005	Establishes reference point for measuring changes	August 2006
Indicative Findings	2006	Early point estimates too preliminary to signal directional change	August 2007
Directional Guidance	2007	Initial indications of serial results that could represent emerging trends	August 2008
Early Trends	2008	Likely emerging trends	August 2009
Program Trends	2009-2010	Statements of cumulative change, 2005-2009	August 2010

Table 2

As noted in the table above, 2005 is a baseline year. The rest of the 2005 Measurement and Evaluation Report describes the HRI activities which occurred in 2005 and information about early participation in the programs as they came on line.

Chapter Two

Healthy Incentives℠ Plan Measures

As noted in Chapter One, 2005 is a baseline year. The focus was on establishing programs and interventions, educating employees and their family members, and initiating engagement with the concepts of creating a healthy work place and taking personal accountability for maintaining health. These interventions are expected to become the basis for long term improvement in health for the King County employee population that over time will result in a lower health care cost trend rate than the county would have seen if it had not made this investment in improving health.

Key activities in 2005 included:

- Finalizing the details of the 2007 – 2009 Healthy Incentives℠ program.
- Launching pilot versions of components of the Healthy Incentives℠ program that provide support to employees and family members who have serious or chronic health conditions and need assistance in managing those conditions.[8]
- Launching the Education and Outreach program for health promotion in the workplace.
- Determining the evaluation approach and logic models for the measurement of both the Healthy Incentives℠ program and the Health Promotion/Education and Outreach programs.
- Determining sources for data.
- Establishing the database and the process for obtaining, normalizing and integrating the data from multiple sources.
- Developing and testing the measurement methodology.
- Calculating first year baseline information.

The first intervention programs of the HRI aimed at improving health and health care quality and managing costs were launched on a pilot basis in January, 2005. These include:

- Nurse advice line (provides current, reliable information on health-related issues 24-hours a day).

[8] These programs were purchased form Aetna for the KingCare℠ program. Group Health has services similar to these embedded into their integrated model for delivering patient-centered care.

- Disease management (provides ongoing support and education to members with specific chronic conditions—chronic heart failure, coronary artery disease and diabetes).

- Case management (telephone outreach to members needing hospital or other specialized care).

- Provider best practice (provides evidence-based treatment information to providers).

- Performance provider network (identifies efficient physicians in defined specialty practices).

The nurse advice line was implemented based on the results of an in-depth employee survey and focus groups conducted in May of 2004. Participants consistently listed access to a 24/7 nurse advice line as their preferred resource for self-care.

The three disease management programs were selected because the Health and Productivity analysis conducted in July of 2004 found these conditions are prevalent in the employees and dependents covered by health plans, and are significant factors in the health care expenses of the 5 percent of claimants in the health plans accounted for 58 percent of the medical and pharmacy costs.

The case management, provider best practice, and performance provider network programs use medical and pharmacy claims, lab results, and special modeling technology to identify opportunities to improve the health care the member is receiving.

In this baseline year key results are focused on participation levels in the five new programs. The county has been very successful in educating employees and their dependents about these new programs and consequently participation levels exceed the levels achieved by other employers in Aetna's book of business.

Summary/ Key Findings

The main focus for the 2005 baseline is on the participation rates in the pilot programs. These types of interventions have an immediate effect on the quality of the member's health and health care, however it may take time for that better quality to show up as savings in claims data. The county did conduct a detailed analysis of claims incurred in 2005 compared to claims in the 2002 – 2004 period to 1) test the database and establish the process for obtaining, normalizing and integrating the data from multiple sources, and 2) see if there were early patterns showing some level of correlation with these programs. At this time there is not a measurable effect on claims using these analytic methods.

The results of both the participation review and claims analysis are described in detail below.

Terminology

Several terms are used in this section whose differentiation needs to be clear in the reader's mind. "Trend" is used to describe changes in health benefits cost over several years time. Changes in costs from one year to the next are referred to as "year over year change".

Claims costs in this report are reported in terms of "incurred claims", meaning claims data has been organized and used on the basis of the date on which the member received the service. There is always some lag between the date of service and the date the billing is processed and finally paid by the county. This lag time is often a month or more, and in extreme cases might be up to 36 months. That means the claims that are actually paid in a particular budget year are not exactly the same as the claims that are incurred in that year—some of the bills paid will be from previous years, and some will not be submitted to the county until the next (or on rare occasions a later) budget year.

In contrast, the county's budget is based on claims actually paid by the county for active employees, COBRA participants and retirees during the calendar year plus additions to the Incurred But Not Reported (IBNR) reserve, program administration fees, and in-house administrative expenses. The claims that are paid may be for services rendered in that plan year or prior years; some claims incurred in the current budget year may not come to the county to be paid until the next budget year. Therefore "paid claims" in the county's budget will never exactly equal the incurred claims discussed in this report.

Costs in this section are generally shown in terms of per employee per month (PEPM.) That amount is derived by dividing the total cost for an employee and all dependents by the number of covered employees.

Caveats for the claims data analysis

- Savings can only be estimated, and the estimates do not have the reliability that would be obtained from a randomized controlled experiment.
    - The five pilot programs begun in 2005 were not instituted in an experimental design created to reveal the savings from those programs. All five programs and the Benefits newsletter, *Health Matters*, were inaugurated simultaneously.
    - Because the programs were introduced simultaneously and made available to all benefits-eligible persons, it is not possible to sort out which program should receive the "credit" for any specific change in the claims data.
- Measurement & Evaluation results are preliminary.
    - Not all claims incurred in 2005 have been billed to King County by the time this analysis was done in 2006. More conclusive results regarding 2005 will be available and provided in the 2007 report when more claims data are available.

    - Some savings from Health Reform Initiative work in 2005 will not appear until 2006 or later. For example, someone who is encouraged to exercise may not produce savings in the first year of exercising.

- Baseline trends have been established.
    - Medical billed claims rose 9.81 percent from 2002 to 2003 and 9.66 percent from 2003 to 2004.
    - Pharmacy billed claims trends are more variable, averaging 14% in 2003-2004.
- This report gives the Health Reform Initiative no credit for all savings produced by Health Reform Initiative work with retirees and other non-employees and their dependents. At this point, savings in claims from non-active employees cannot be measured reliably. Because their data could not be integrated, non-employees (including COBRA and self-paying retirees) and their dependents could not be included in the 2005 analysis. Data issues related to non-employees will be addressed in the coming year so that they can be included in the analysis for the Health Reform Initiative 2006 Measurement and Evaluation Report.

Initial Indications

Overall, medical billed claims for employees in 2005 continued the 2002-2004 trend (9.81% from 2002 to 2003 and 9.66% from 2003 to 2004). Pharmacy claims for employees showed less than the 14% growth seen in 2003 - 2004, producing approximately $580,000 in savings, but the percent increase was within a margin of error of the estimated baseline growth. There was no statistically significant deviation from the pharmacy claims trend, so the 2005 savings can be reasonably attributed to random variations. Total incurred medical and pharmacy claims in 2005 (based on claims processed January 1 through May 31, 2006) was $88 million. (Because approximately 1% of claims incurred in 2005 will be reported in the second half of 2006 and in 2007, this report estimates 2005 claims by adding 1% for claims that will appear later.)

The business case[9] for the HRI estimated that there would be small net savings in 2005 from the implementation of the five pilot programs in the KingCare[SM] health plan (nurse advice line, disease management, case management, provider best practice and provider performance network.) The total savings minus the cost of the programs was expected to be approximately $1.1 million.

[9] See King County Health Reform Initiative Measurement & Evaluation Reports 2005 Technical Appendix for detailed discussion of data and findings.

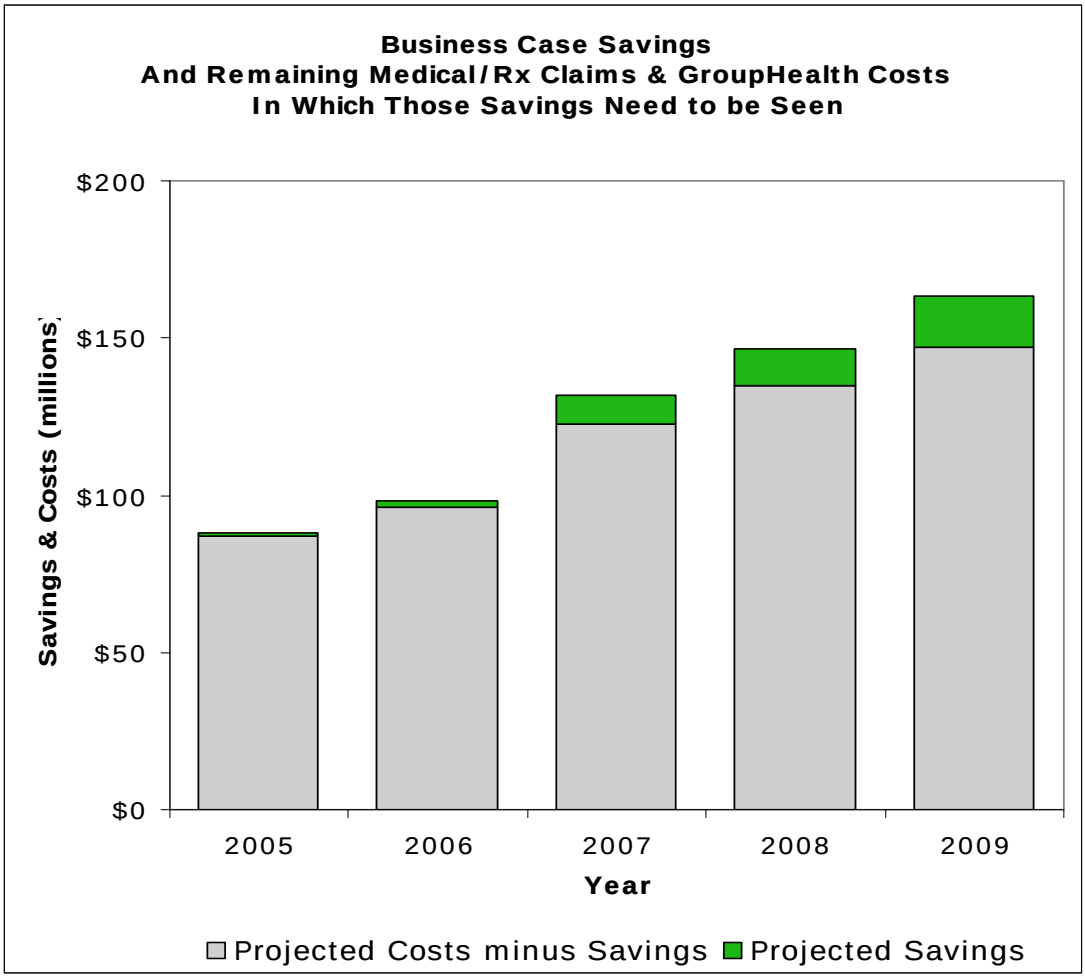

Figure 4

As Figure 4 above illustrates, the amount of expected savings in 2005 ($1.1 million) versus the total amount of medical and pharmacy claims ($88 million) is quite small. The amount of saving from all HRI programs, according to the business case, is projected to grow each year. Concluding that the HRI has or has not had a significant impact on claims costs will be more apparent in future years when more data are available and when projected savings are a larger proportion of total costs. It is too early to detect with certainty whether or not the expected net savings occurred.

King County Health Care Database

For the first time, King County is collecting and storing insurance claims for medical and pharmacy KingCare[SM] benefits. This data collection is the foundation of the analyses reported here, and will support future analyses to determine which current and future interventions can improve employee health and health care, and provide savings.

De-Identification & Integration

The county strictly adheres to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to ensure confidentiality of individual employee and dependent information. The county uses an external data integrator service to 1) integrate data from multiple sources and then 2) de-identify individual records and assign a new, random identifier that cannot be traced back to the original employee/dependent. This process allows all of an employee's household's medical and pharmacy claims to be summed without identifying which employee or dependent is involved.

Some analyses (e.g., monthly summaries) are not possible with HIPAA de-identified data. For this reason, some of the data collected for this report were collected from online reports of aggregated data from Aetna and Caremark, the claims administration services for medical and pharmacy claims, respectively.

2005 Savings Estimated from King County Prior Trends

Systems & Methodology

This report confirms that measurement and evaluation data collection, recording, and analysis systems are in place. Results from the first year are preliminary indications of what may be found in coming years. The results presented here illustrate the methodology and reports that will be provided in coming years, when a clearer image of the Health Reform Initiative impact is available.

Because the five pilot Health Reform Initiative programs were provided to all employees at once, the measurement of the programs' financial impact cannot use a comparison group of King County employees. Thus, the analysis must use past trends to forecast what claims would have been in 2005 without the pilots and compare that statistic to claims observed in 2005. Savings are then estimated by subtracting observed claims from forecasted claims. Because medical and pharmacy claims have had different trends, this analysis must be done separately for medical and pharmacy claims.

Medical Claims in 2005

Table 3 shows that the trend seen in 2002 – 2004 predicts that medical claims cost in 2005 will be $1,077 PEPM +/- $15. However, the 2005 claims cost (estimated from the claims processed for January 1 through May 31, 2006) is $1,100 PEPM +/- $8.

2002-2004 Trend in Medical Billed Claims for Employees by the Year the Claims Were Incurred
2005 Forecast Based on 2002-2004 Trend
2005 Estimate Based on Claims Processed Before June 2006

Year	Billed Medical Claims Per Employee Per Month	Year-to-Year Percent Increase
2002	$815	
2003	$895	9.81%
2004	$981	9.66%
2005 Forecasted from 2002-2004 Trend	$1,077 +/- $15	9.76% +/- 1.5%
2005 Estimated from Claims Process before June 2006	$1,100 +/- $8	12.12% +/- 0.8%

Table 3

At this point, 2005 billed claims incurred in 2005 can only be estimated. More claims from 2005 will come to King County over the next year. For this reason, the 2005 statistic has a margin of error ($8) as does the 2005 statistic forecasted from the 2002-2004 trend ($15).

The data so far indicate that incurred claims in 2005 are running slightly higher than the level that the 2002 – 2004 trend would suggest.

Pharmacy Claims in 2005

Claims history for pharmacy claims before 2003 is not available. In Table 4 the trend seen in 2003 – 2004 predicts that pharmacy claims costs in 2005 will be $179.05 PEPM +/- $19.52. However, the 2005 claims cost (estimated from the claims processed for January 1 through May 31, 2006) is $174.13 PEPM.

Pharmacy Trends, 2005 Forecast, & 2005 Billed Pharmacy Claims

Year	Billed Claim Per Employee Per Month	Year-to-Year Percent Increase
2003	$138.63	
2004	$157.55	13.64%
2005 Forecasted from 2003-2004 Trend	$179.05 +/- $19.52	13.64% +/-12.39%
2005 Estimated from Claims Processed before June 2006	$174.13	11.52%

Table 4

Pharmacy billed claims per employee per month in 2005 were $4.92 below forecast. A $4.92 per employee per month savings is a total savings of $575,852 for the year. Because of wide variation in prior pharmacy costs, the $4.92 is not a statistically significant savings off of the forecasted pharmacy billed claims. Because the contract with Caremark does not provide details on discounts and rebates Caremark receives from drug manufacturers and pharmacy chains, it is unclear what proportion of any savings in pharmacy billed claims resulted in savings in costs for King County.

Program-by-Program Analyses

Nurse Advice Line (Informed Health Line®)

The Informed Health Line is available to members 24 hours a day, 7 days a week via a toll-free telephone number. Registered nurses guide callers through a decision model to help the caller determine whether their condition can be treated at home, requires a provider office visit, or requires immediate attention in an urgent care center or hospital emergency room.

King County employees and their families used the nurse advice line at twice the rate of other employers who subscribe to Aetna's Informed Health Line. Nearly 42 percent of callers asked for general health information, and 35 percent requested information on self-care or home treatments. Only 5.7 percent of calls were for assistance in deciding if the member needed to go to the emergency room or could wait to make an appointment for an office visit. Information about utilization of the nurse advice line is summarized below:

Informed Health Line – 2005 Utilization	
Total calls handled	1,232
First time callers	978
Annualized calls for every 100 eligible households	12.3%
Aetna book of business annualized call rate	5.6%
#1 reason for call –request for health information	41.8%
#2 reason for call—request for information on self-care/home treatment	35.1%

Table 5

Disease Management

The disease management program directs focused support and resources toward members with chronic heart failure, coronary artery disease and diabetes in order to improve health status and quality of life. It provides education for both the member and provider. Educational services for the member include written materials and telephone coaching calls to help the member to identify and address health risk factors associated with their chronic condition. The frequency and intensity of these education services is based on

the member's individual level of risk. Members the highest risk group (Level 5) have at least a 20 percent chance of experiencing an acute exacerbation of their conditions within the upcoming year, and are at least 10 times as likely to have a sudden onset of complications in the next year compared with members at Level 1.

King County members identified as having chronic health disease, coronary artery disease (CAD) or diabetes participated in the disease management programs at approximately 6 percent higher rates than members in other plans in Aetna's book of business. Table 6 shows the number of KingCare members who have been flagged as having one of the target diseases along with participation statistics. Table 6's statistics include all members, including COBRA and self-paying retirees.

Disease Management Participation Statistics

Condition	Invited Members with Condition	Members Participating in Disease Management Program	Members receiving "high touch" disease management (telephone consultations)	Members receiving "educational" disease management (mailed a semi-annual newsletter)	Members Who Have Not Yet Selected Participation Level (Receiving No Disease Management)	Percent of Invited Members who Have Chosen to Participate and Have Chosen Participation Level
Congestive Heart Failure	175	131	14	105	12	68%
Coronary Artery Disease	291	182	13	160	9	59%
Diabetes	1,182	1,078	30	1,032	16	90%
Total	1,649	1,391	57	1,297	37	82%

Table 6

For 4 percent of members who are receiving "high touch" services (57 in 2005), Aetna provided telephone consultations to improve their healthcare and ability to manage their diseases. For the rest of the patients who agreed to receive it, Aetna mailed a semi-annual newsletter about managing their diseases.

The greatest opportunity to both improve health and quality of life and produce immediate savings is through helping the members at risk levels 3, 4 and 5 to bring their condition under better control. At the time the analysis was done, however, the data about households who included members receiving "high touch" disease management services was not complete enough to be able to determine if the apparent increase costs for families that included a member with congestive heart failure or coronary artery disease was the result of the members proactively getting treatment to manage their condition or continuing to not manage it and experiencing emergency interventions.

Case Management (Enhanced Member Outreach[SM])

A standard part of the services that KingCare[SM] purchases from our medical claims administrator is a review of cases and some interventions to avoid unnecessary claims. The Enhanced Member Outreach (EMO) program supplements Aetna's standard case management program through the use of additional clinical resources from medical and pharmacy and lab results data to identify members who are at greater risk because they are scheduled for in-patient hospital care, are preparing for discharge from in-patient hospital care, or have a claims history that indicates presence of an uncontrolled chronic condition or other risk factors. Specially trained EMO nurses call these members to encourage them to work closely with their health care providers and follow their treatment plans.

The EMO nurses identified 1,138 unique members whose claims profiles indicated they qualified for the EMO services. The EMO nurse was able to successfully contact 799 of those members for a 70 percent completion rate. (The EMO program is a new service from Aetna that started in fourth quarter 2004. It is based in downtown Seattle, and thus there are not yet many employers who have this program, so book of business comparisons are not yet available.)

Part of the history behind the development of the EMO program is that years ago it was common for hospitals to bill for extended hospital stays after patients had gone home. The original case management included visiting patients at hospitals daily to ensure that payments for hospital stays did not continue after patients were discharged. Since then, case management has grown to include a wide variety of interventions and communications.

Before 2005, case management interventions were limited to the cases that, in Aetna's judgment, were most likely to yield savings. By purchasing Aetna's Enhanced Member Outreach, the KingCare[SM] plan contracted to have the case management interventions applied to more KingCare members. The members who received Enhanced Member Outreach were expected to experience a "catastrophic event" in the next 12 months, and EMO offered outreach services to get that member into programs to reduce the risk of the catastrophic event. The hope here is that, while these new cases may be less likely to yield savings, they still promise some savings beyond the cost of the program

The modeling Aetna uses to identify members for EMO services is based on a number of "triggers." In 2005 these triggers included:

- Surgeries: Contacts were made pre- and post-admissions/surgeries for all elective procedures except maternity
- Predicted to benefit from Disease Management (e.g., diagnosed with diabetes, coronary artery disease, or congestive heart disease): Patient referred to Disease Management.
- Pharmacy non-compliance (e.g., long-term prescription not refilled)
- In any 6-month period:
    - Incurred 3 or more ER visits

- Visited one provider 30 times
- Visited 10 or more specialists & 3 or more distinct providers
- Visited primary care provider 10 or more times

The impact of Enhanced Member Outreach is through the increased actions of disease management and case management.

Case management works with disease management to yield savings in the diseases that Disease Management targets. The analyses reported above regarding the disease management indicated that changes in the target diseases were too small compared to the variation in such diseases for those changes to be statistically significant (attributable to anything other than random variation). With additional years of data, it may become possible to see an impact of case management and disease management on these diseases.

After rising 8.96% in 2003 and 5.74% in 2004, hospitalization costs rose 7.43% in 2005. From 2002 through 2004, the overall annual trend in in-patient claims was 7.34%, slightly less than the rate seen in 2005.

Provider Best Practice (MedQuery®)

The MedQuery uses claims history, current medical claims, pharmacy, laboratory, physician encounter reports and patient demographics along with evidence-based treatment recommendations to find possible errors, gaps, omissions (*e.g.* certain accepted treatment regimens may be absent) or co-missions in care (*e.g.* drug-to-drug or drug-to-disease interactions.) When MedQuery identifies a member whose data indicates that there may be an opportunity to improve care, outreach is made to the treating physician based on the apparent urgency of the situation.

Many hospitals and large pharmacies contract with First Data Bank for a similar service to review prescriptions for such mistakes. The advantage of Aetna's MedQuery over the pre-existing First Data Bank service is that MedQuery reviews patients' full medical insurance claims of the last year as they search for such errors, while First Data Bank reviews each prescription individually.

In 2005 the MedQuery program identified 3,213 instances where the claims data indicated a variation from best practice protocols and the member's physician was notified and provided the information. Sixty-two of these instances were judged to be Severity Level 1--clinically urgent, meaning immediate action is needed to prevent serious harm or even death. The distribution of severity levels of cases for King County members versus Aetna's book of business (BOB) is shown in the table below.

MedQuery—2005 Utilization			
Severity Level	***# of Physician Contacts***	***% of Total for King County***	***% of Total for Aetna BOB***
1—Clinically Urgent	62	1.93%	2%
2—Clinically Important	2,172	67.60%	76%
3—Clinically Notable	979	30.47%	22%

Table 7

Early claims data indicate that 36.8% physician contacts from MedQuery for all three severity levels combined resulted in a change in the treatment plan to reflect the best practice protocol recommended in the MedQuery. Over 55 percent of contacts to physicians for severity 1 level cases resulted in a treatment change. Examples of severity 1 level care considerations include drug /drug interactions (*e.g.* PDE-5 Inhibitor-nitrate interaction that could cause low blood pressure or stroke); add/intensify a drug (*e.g.* atrial fibrillation/no anticoagulation that could cause a blood clot or stroke); and stop a drug (*e.g.* Wellbutrin contraindication for seizure disorder that could cause worsening of seizures.) Aetna is considering expanding the MedQuery program to include sending a notice to the patient if there is no indication that the provider has reviewed the case and either made the recommended change or determined there are mitigating circumstance in the case that are good reasons to deviate from the recommended best practice.

Performance provider network (Aexcel)

The Aexcel network is comprised of Aexcel-designated specialists, participating primary care providers, hospitals and physicians in non-Aexcel-designated specialties. The overall cost of care delivered within Aexcel-designated specialties is evaluated based on certain measures of volume, clinical performance and cost-efficiency measures.

Approximately 79 percent of KingCare[SM] members who visited specialists in 2005 used specialists who are in the Aexcel network. There are no incentives in the plan to "push" members towards using Aexcel network providers (*e.g.* lower co-insurance than if the member used a non-Aexcel specialist).

Chapter Three

Education and Outreach— Health Promotion in the Workplace

In May of 2004 the county conducted an in-depth survey and a series of focus groups among employees to determine:

- What employees knew and believed about the cost and quality issues in health care.
- How employees and their families make health care decisions.
- How and what kind of information employees and their families currently access and use and what they wish they had to make better health care decisions.
- How certain programs/services/tools (*e.g.* disease management, health risk assessment, *etc.*) would be received.

Participation in this process was high, and the results were used to define the vision, goals, strategies and program elements of the Education and Outreach program. Key findings of the 2004 study included[10]:

Choosing Your Plan

- Employees were aware of the national health care crisis; they were less certain of the county's specific situation and how it would affect them.
- Freedom of choice (doctors), having their current doctor in the plan, and lower out-of-pocket costs most influenced plan selection.
- Many employees were less aware of or concerned with quality, and they defined quality only in terms of their relationship with their doctor.
- Plan descriptions were a key source of information when making enrollment decision.
- Employees needed and wanted easy-to-read information on the county's situation, how to choose and communicate with a doctor, costs for actual procedures, and what their out-of-pocket costs would be.

Using Your Health Care

- While many employees reported being actively involved in decisions with their doctor, more than 25 percent of survey respondents reported "never" doing many of the active behaviors identified (*e.g.* preparing questions, bringing a list of prescription drugs and over the counter medications and supplements they are currently taking).

[10] Complete findings of the employee survey and focus groups can be found in the September 2004 report from Mercer: *Health Education Communication Strategy and Work Plan 2004 – 2006.*

- Key sources of health care information were the doctor and the Internet (disease-specific websites in particular) and self-care guides.

- While employees rely heavily on on-line information and services, they did not find the county's and the plans' existing website useful.

- Employees were seeking health care information on general health topics (diet, fitness, *etc.*), specific illnesses/conditions (including the best way to treat), medications and alternative care.

- Barriers to actively participating in decisions with the doctor included: don't know the questions to ask, limited time with the doctor and don't know where to go for information.

- Employees indicated they believed it is important to be an active participant and could easily list active behaviors.

Managing Your Health

- Employees were motivated to take care of their health so that they could "be there" for family members, and be able to do things they wanted to do; older employees were more motivated by the thought of enjoying retirement.

- Disease management programs generally received favorable ratings.

- Confidentiality and trust were significant barriers to employees' participation in a health risk assessment; employees were very concerned that the information would be used against them in employment and health care coverage decisions, and they did not believe that anything would be safe on the Internet.

- Focus group participants were far more focused on preventive care than managing illnesses and chronic conditions.

- Employees reported doing many healthy behaviors and 93 percent said they are in excellent, very good or good health; paradoxically 20 percent of employees reported having 3 or more chronic conditions.

2005 programs

The Education and Outreach program was formally initiated in January 2005. Program elements inaugurated in 2005 include:

- **First annual Leadership Forum**, May 2005. Over 200 leaders and managers from all parts of the King County organization met to become informed about the Health Reform Initiative and learn about their role in making King County a healthier organization.

- **First annual Health and Benefits Fair**, September 2005. Approximately 2,000 employees attended.

- **Onsite flu shot program,** November 2005. Over 3,000 employees received flu shots at various work location around the county. The flu shots were free of charge to benefits-eligible employees.

- **Manager Toolkits.** The following toolkits were created to prepare managers for the Healthy Workplace Funding Initiative that began in 2006: *Resources for Soliciting Feedback from Employees* and *Effective Partnerships with Represented Employees.*

- **Eat Smart programming.** Partnerships were established with operators of vending machines at a number of King County worksites to add healthier snacks to vending machines. Work also started on getting a contract for an on-site weight management program (in March of 2006 the contract was awarded to Weight Watchers at Work).

- **Move More programming.** During August and September, King County employees were invited to participate in Walk Fest 2005, a pilot program that encouraged employees to walk more (additional programming was added in 2006).

- **Comprehensive education** programming to prepare employees for the wellness assessment and individual action plan components of the Healthy Incentives[SM] program. Health Matters partners conducted a series of "road shows" that were presented at worksites all over the county and also made available on DVD and on the county's website. These road shows explained the cost and quality crisis, the direct effect on both King County and county employees, and how improving personal health is an effective cost control intervention. This prepared employees to participate in the wellness assessment and individual action plan program that began January 1, 2006.

- **Health Matters newsletter.** The first issue of the monthly newsletter was sent to employees' homes in December, 2004. The Education and Outreach team prepares a number of King County-specific articles for each issue.

The Education and Outreach program uses a wide range of vehicles as a part of its general and program element-specific communications approach. These vehicles include:

- Newsletter mailed to home
- Global emails
- Posters and brochures
- Focus on Employees Web site (www.metrokc.gov/employees)
- Presentations at specific worksites and via DVD and on the Web
- Media
- Word of mouth
- Payroll stuffers and messages

Program Measurement

Interventions that cannot be measured through claims data must be measured through other means, such as surveys of employees and their dependents. Surveys are an important component of the evaluation design, as they seek information from employees and their dependents that is not obtainable through other means.

In addition, surveys for the interventions related to health promotion, consumer education, and organizational alignment track the progression of these interventions through the Learn It!, Believe It!, and Do It! phases. The surveys help evaluate the impact of these interventions in achieving this type of change among employees/dependents from year to year.

The surveys for the Learn It! And Believe It! Phases will be developed during 2006. Movement by employees into the Do It! Phase will be measured in 2007.

In 2006 three surveys will focus on employees, spouses and partners, and managers and supervisors. Below is an overview of what each will cover.

Employees: Random sample online survey, with paper/mail option.
Target date: September 2006
Includes measurement of:

- Opinions of and satisfaction with the overall HRI, including importance of managing one's own health and satisfaction with HRI information and assistance.
- Employees' opinions and experiences with the Wellness Assessment and Individual Action Plan, including awareness of HRI resources.
- Effectiveness of communication tools.
- Opinions of and experience with Live Well (Eat Smart, Move More and Quit Tobacco).
- Awareness of and opinions of organizational alignment to support health and healthy employees.

Spouses/Partners: Random sample telephone survey.
Target date: September 2006
Includes measurement of:

- Opinions of and satisfaction with the overall HRI including importance of managing one's own health and satisfaction with HRI information and assistance.
- Spouses'/partners' opinions and experiences with the Wellness Assessment and Individual Action Plan, including awareness of HRI resources.
- Effectiveness of communication tools.

Managers and supervisors: Survey at Leadership Forum.
Target Date: May 2006
Includes measurement of:

- Mangers' opinions of the organizational alignment and experiences with changing the work environment to support health and healthy employees.

Chapter Four

Summary and Conclusions

The Health Reform Initiative is a bold, innovative, and comprehensive effort to take an integrated approach to managing health care costs—one that a) seeks to address the cost and quality issues in the health care system while at the same time b) supporting organizational accountability for creating a healthy workplace, and c) encouraging personal accountability for adopting healthy behaviors and using health care resources wisely. The goals of the program are ambitious—reduce the rate of growth in King County's health care costs by one-third over the period of 2007 – 2009.

Five pilot programs aimed at managing claims costs were launched in January 2005. At this point there is not yet evidence that these five pilot programs produced savings in 2005 using the analytical methods applied in 2005. This is not a surprising result since it takes time to identify members eligible for these services, and the effect of most of these services would not take immediate effect in any case. Both the business case and the evaluation model anticipate that final results of the Health Reform Initiative will not be fully known until the final report in 2010.

Communications and outreach activities that are part of the comprehensive health promotion strategy were in the planning and early implementation stages in 2005. The results of two surveys of employees and their spouses/partners aimed at establishing a baseline for where members are within the learning model of *Learn It! Believe It! Do It!*, plus the results of a survey of managers aimed at measuring how the organization is aligning itself to support the goals of the Health Reform Initiative, will be part of the 2006 Measurement and Evaluation Report.