Appendices

A. Benefits Design Incentives

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Appendix A
Benefit Design Incentives

Benefit Design Incentives for System-wide Improvement

The Use of Demand Side (Consumer) Tools

As the cost of health care continues to escalate throughout this region and across the country purchasers of insurance are once again looking to increase the use of deductibles, co-pays, co-insurance and other consumer related incentives to control costs. Indeed, up until this time, these tools have been used primarily as cost sharing devices, not as part of an integrated strategy designed to provide economic incentives for consumers who make rational care decisions.

As noted by the leading report on health systems reform, consumer directed tools such as co-pays and co-insurance have been used as a kind of "blunt instrument" to promote cost sharing among all types of care including those types of interventions, such as disease management utilization, that we hope to encourage.[1] This is true, despite the fact that there is strong data to suggest that demand side incentives do play a significant role in affecting consumer utilization patterns.[2]

The time has come to reform the way in which these incentives are used.[3] The Task Force agrees that demand side approaches will play a critical role in the creation of a health system that is both affordable and efficient, but the true utility of demand side tools will be found in their ability to provide economic incentives for consumers to make informed health care

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[1] Aon Consulting and OHSU Center for Evidence-based Policy, "Report to the PEBB Board - Strategic Planning 2003," 15 Jan 2004, p.17, "The problem is that the use of such incentives has been through broad and blunt benefit designs overlaid on poorly informed patients and providers. Cost sharing in general has not been use to incent quality. As a result such blunt tools result in poor discrimination of services; preventive services for important but asymptomatic diseases are more likely to be avoided while ineffective services for limited symptomatic diseases are preferred."

[2] Id. p. 3, "There is a surprising lack of interest in exploring choice strategies despite strong evidence that patients are willing to make choices based on cost and quality. Instead patients are currently presented with similar benefit plans provided by identical delivery systems. See also Kaisernetwork.org's synopsis of the 10 May 2004 New Yorker article where one recent study involving Connecticut-based Pitney Bowes corporation revealed that ... "by reducing asthma and diabetes co-insurance rates to 10%, Pitney cut annual median medical costs for diabetes patients by 12% and cut median costs for asthma patients by 15%. Within a year, Pitney was paying more for maintenance drugs, but "significantly less" for rescue medications."

decisions based on the principles underlying the strategies outlined in this report.[4] Examples of such an approach might include lowering or waiving the co-payment requirements for all chronic care management visits, charging a high co-insurance fee for emergency room usage, but waiving such a fee if the consumer is actually admitted to the hospital for treatment, or charging no consumer fee at all for interactions with medical professionals via email.[5]

Perhaps the best example of this type of demand side strategy to influence care utilization can be found in the increasingly successful three tier approach to pharmaceutical drug programs. As recently reported by King County's human resource division establishing a co-payment system that first rewards the use of generic drugs over their more expensive brand name counter-parts; creates a higher co-pay for a class of brand named drugs that have been proven to provide a high level of value; and reserves the highest co-pay for those brand name drugs that are of questionable utility or present excessive costs has saved the county over $6 million dollars in its first year.

There is, of course, a very reasonable explanation as to why such a sophisticated, system-wide use of these tools has not been implemented across our region. As we have discussed throughout this report, it is impossible to have an integrated system-wide strategy when there is not yet a functional, transparent, patient centered system in place.

This point emphasizes the fundamental need to build the type of regional infrastructure necessary to support the use of these powerful economic levers. For example, it is not possible to reward consumers of care for choosing high performing doctors unless we have

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3 Robinson J, "Reinvention of Health Insurance in the Consumer Era," JAMA, (21 April 2004), discussing the health insurance industry's new strategy to … "shift emphasis from reducing health care costs on behalf of corporate purchasers to structuring health care choices by individual consumers."

4 Robinson J, "Renewed Emphasis On Consumer Cost Sharing in Health Insurance Benefit Design," Health Affairs (2002) p. 145 "Cost sharing creates financial disincentives for the use of cost-effective and clinically effective services as well as for their more discretionary fellow travelers. Some health plans are exempting particularly valuable services, such as preventive care, from deductibles and co-payments altogether, while varying the cost-sharing requirements for other services."

5 Trude S and Grossman J, "Patient Cost-Sharing Innovations: Promises and Pitfalls," Issue Brief No. 75, "[i]n the past, potential cost savings depended on workers' annual choice of a health plan. Innovations in patient cost sharing, in contrast, emphasize choice at the point of service and do not require a year long commitment by the patient. Form many common decisions, such as choice of drugs, providers and some services, a patient could fist choose a lower-cost option but switch to the higher cost option if dissatisfied. For example, a patient might choose between a less costly X-ray and more expensive magnetic resonance imaging MRI for a joint problem."

a system validated by the medical community that is actually capable of evaluating doctors. In addition, consumers themselves must come to understand and accept the metrics that guide such a system, because, as we have seen with the decline of managed care in this country, without a grassroots understanding and approval of why certain care choices are made more expensive than others, consumers are likely to reject such a system entirely.[6]

Taken from another perspective, all the work that will be done to create a uniform system of performance measures, including developing a shared data system for regional claims analysis, will have little effect if those reforms are not acted upon by the consumers of care. By placing the right incentives to promote the delivery of the right care at the right time, reforms will spring to life as each new patient rewards those members of the medical professional community who participate in the new standards-based approach.[7]

The Use of Supply Side (Provider) Tools

In addition to the consumer related strategies discussed above, the Task Force recommends that the medical professional community have access to a series of performance-based payment initiatives to support those types of care that have proven to provide positive health outcomes efficiently and effectively.[8] Unlike the system now in place which essentially rewards higher utilization, the Task Force recommends that plan designers create a system of payments that are structured to reward medical professionals for doing such things as ordering appropriate screenings for high risk conditions, having in place a registry of information to better track patient compliance with treatment protocols and achieving high levels of customer satisfaction on standard customer survey tools.

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[6] Grol R, "Improving the Quality of Medical Care, Building Bridges Among Professional Pride, Payer Profit and Patient Satisfaction," JAMA, 28 Nov 2001, includes a detailed discussion about the dynamics of patient empowerment See also Trude and Grossman noting the lack of transparency of pricing mechanisms in the current health system as a significant impediment to adequate consumer participation.

[7] Cutler D, "Your Money or Your Life," (New York, Oxford University Press, 2004), p.101 provides a complete discussion of what a performance based system might look like.

[8] See PEBB p. 28 for a similar series of recommendations.

Fortunately, efforts to provide real financial incentives to medical professionals to deliver quality care are under way across the country. Bridges to Excellence[9], the nation's largest employer-sponsored effort to reward physicians for delivering high-quality care presents an excellent model for reform. The coalition is a not-for-profit organization created to encourage significant leaps in quality of care by recognizing and rewarding health care providers who demonstrate that they deliver safe, timely, effective, efficient and patient-centered care. Bridges to Excellence participants include large employers, health plans, the National Committee for Quality Assurance, MEDSTAT, and WebMD, among others. The organizations are united in their shared goal of improving health care quality through measurement, reporting, rewards and education.[10]

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[9] www.Bridgestoexcellence.org

[10] Bridges to Excellence has three programs in all:

1. ***Physician Office Link*** enables physician office sites to qualify for bonuses based on their implementation of specific processes to reduce error and increase quality. They can earn up to $50 per year for each patient covered by a participating employer or plan. In addition, a report card for each physician office describes its performance on the program measures and is made available to the public.

2. ***Diabetes Care Link*** enables physicians to achieve one-year or three-year recognition for high performance on diabetes care. Qualifying physicians receive an $80 bonus for each diabetic patient covered by a participating employer or plan. In addition, the program offers a suite of products and tools to help diabetics get in their care, achieve better outcomes, and identify local physicians that meet the high performance measures. The cost to employers is no more than $175 per diabetic patient per year with savings of $350 per patient per year.

3. ***Cardiac Care Link*** enables physicians to achieve three-year recognition for high performance in cardiac care. Qualifying physicians are eligible to receive up to $160 for each cardiac patient covered by a participating employer or plan. In addition, the program offers a suite of products and tools to help cardiac patients get engaged in their care, achieve better outcomes and identify local physicians who meet the high performance measures. The cost to employers is no more than $200 per cardiac patient per year with savings up to $390 per patient per year.

In addition to direct financial incentives, we recommend that the Partnership investigate a means of providing certain legal liability protections for medical professionals that are in compliance with established evidence-based guidelines, and be given discounts on medical liability insurance if they maintain a certain performance level established by a neutral monitoring agency or organization.

It is critical to note that financial rewards for medical professionals should be directly linked with those financial rewards put in place to provide incentives for consumer behavior.[11] For example, if benefits design programs are to waive insurance deductibles for patients that make all of their scheduled appointments for the maintenance of a given chronic condition, those doctors that are responsible for scheduling and tending to those appointments should be given a similar bonus should the patient adhere to the schedule. Such a program of incentives could be made available to insurers as well. As noted by a leading health economist "[i]nsurers that had more patients who got recommended screening, better risk factor control, and good surgical outcomes would earn bonuses over those that did not." [12]

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[11] Id. p. 5 "…patient and practitioner incentives will need to be aligned."

[12] See Cutler D, p. 101.

Appendix B
Employer-Sponsored Programs

Evidence-based Approaches for Employer-Sponsored Chronic Disease Prevention and Management Programs

As health care costs rise, employers are looking outside of the traditional cost management strategies that focus on the *supply* (*i.e.* the providers of care, the system of care. insurance, the resources used in health care, *etc.*) of health care, and are now increasingly focusing on managing the *demand* (*i.e.* the patient's need, their health care use behavior, the attitudes of users, *etc.*)for health care by improving morbidity patterns, health status and health care use behavior among employees and their family members.

The chart below lists examples of demand-side health cost management interventions[1]:

Framework for Demand-Side Health Cost Management Interventions	
Educational Interventions	***Plan Design Modifications***
Benefit Communications	Preventive medical benefits
Medical self-care	Plan structure and choice options
Consumer health education	Point –of-service cost sharing
Injury prevention	Error correction incentives
Advance directives	
	Individual Interventions
Wellness Incentives	Targeted at-risk intervention
Plan utilization incentives	High-risk intervention
Wellness achievement incentives	Condition management
	Disease management
	Selective user intervention

The intervention activities in demand-side health cost management are aimed at moving employees and family members with higher risks to lower risk, and keeping those at lower

[1] Chapman L, "Health Cost Management Strategies for Health Promotion Programs," *The Art of Health Promotion*, Vol 5, Num 5 November/December 2001

risk healthy. 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 U.S. are potentially avoidable or controllable, including most injuries, and many serious acute and chronic conditions.

Chronic diseases—cardiovascular disease (primarily heart disease and stroke), cancer, chronic lung and respiratory diseases, and diabetes—are five of the six leading causes of death and disability in the United States, according to the National Center for Health Statistics in 2001. Over 45 percent of the U.S. population has at least one chronic condition, and 21 percent have two or more chronic conditions[2] People with chronic conditions are the heaviest users of health care services in all major service categories, accounting for 78% of all health care dollars spent in the United States. In fact, the total medical expenditures for a person with a chronic condition are more than five times higher than for a healthy person.[3]

These data point to the need for individuals to play a more active role in their health. Many employers have implemented health promotion/wellness programs to help employees understand the importance of making lifestyle and health behavior changes. Traditionally, questions about hard dollar return on investment (ROI) have impeded the growth of these programs. This is changing for a number of reasons. First, empirical research demonstrating improved health, cost savings and a positive ROI is more readily available. Second, the health care cost epidemic has many experts recommending a shift from treatment-focused to preventive-focused care. Lastly, recent press coverage and government initiatives on issues such as tobacco cessation and obesity have focused public attention on these issues.

The United States Preventive Services Task Force (USPSTF) has published the *Guides to Clinical Preventive Services,* an evidence-based review of the effectiveness of over 70 prevention options, including immunizations, preventive therapy, reducing behavioral risk factors, and screening for disease.[4] The table below, extracted by the Alliance for Reducing Cancer

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[2] Wu S-Y, and Green A, "Projection of Chronic Illness Prevalence and Cost Inflation," RAND Corporation, October 2000.
[3] Data from "Medical Expenditure Panel Survey," 1998
[4] United States Preventive Task Force, 2003

Northwest from the USPST report, summarizes 17 clinical preventive services aimed at reducing chronic disease. Of these, ten are effective services that doctors or other healthcare workers should provide. This table also shows that healthy diet and physical activity are important but best dealt with outside the healthcare system.[5]

Recommendations for Clinical Preventive Services Aimed at Reducing Chronic Disease		
Preventive Service	***Age***	***Recommended?***
Immunizations:		
Influenza	6-23 mos, >50 yrs	Yes
Pneumoccocal	>65 yrs	Yes
Preventive therapy:		
Aspirin, low-dose	Any, if at heart disease	Yes
Reducing Behavioral Risk Factors:		
Stopping smoking	Any	Yes
Counseling to stop smoking	>21 yrs	Yes
Medications to stop smoking	>21 yrs	Yes
Eat healthy diet (low saturated fat, high fruits and vegetables)	Any	Yes, but patient-driven
Counseling for health diet		Insufficient evidence
Physical activity	Any	Yes, but patient-driven
Counseling for physical activity		Insufficient evidence
Screening for disease:		
Breast cancer (mammogram)	>40 yrs.	Yes
Cervical cancer (Pap smear)	>21 yrs	Yes
Cholesterol	Men >35 yrs Women >yrs	Yes
Colorectal cancer (colonoscopy, flexible sigmoidoscopy, fecal occult blood test)	>50 yrs	Yes
Diabetes		Insufficient evidence
High blood pressure	>50 yrs	Yes
Prostate cancer (prostate-specific antigen)		Insufficient evidence

Source: United States Preventive Services Task Force, 2003 *Note: "insufficient evidence" indicates there is not enough or consistent enough information to recommend for or against a preventive service.*

[5] Harris J, Kulner J, Pellegrini A, "Chronic Disease Prevention Opportunities at Weyerhaeuser," August, 2003

The Partnership for Prevention, a national non-profit organization serving employers, has ranked over 50 effective clinical preventive services in terms of overall health impact and relative cost effectiveness. Of this list, the top three high impact, high value clinical preventive services aimed at preventing chronic disease that are cost-saving or cost-neutral and offer payback in fewer than five years are: counseling and medications to stop smoking, influenza immunization, and pneumococcal immunization.

The Task Force on Community Preventive Services, 2003 report has also developed a list of recommended preventive services relevant to employers in the areas of diabetes, immunizations, physical activity, sun exposure and tobacco. There are 18 recommended preventive services. Of these, six are cost-saving or cost-neutral; the rest have no data available on cost-effectiveness. Not shown is information on what has not been proven to work. The most remarkable negative finding is that education alone has rarely been shown to reduce risk behaviors or increase the use of clinical preventive services.[6]

[6] Harris J, et al, Conclusion of authors of "Chronic Disease Prevention Opportunities at Weyerhaeuser"

Effective Work - Place Relevant Preventive Services Aimed at Reducing Chronic Disease	
Preventive Service	***Cost-Saving / Neutral?***
Diabetes	
Case management – focused on individuals with diabetes	--
Disease management – focused on populations with diabetes	Yes (prenatal)
Self-management education in communities, for type 2	--
Self-management education at home, for type 1	--
Immunizations	
Co-pays / deductibles reduced or eliminated	--
Measurement / accountability systems fed back to providers	--
Programs that educate and expend access (hours, locations, *etc.*)	--
Reminder systems for patients, providers	--
Standing orders to make automatic	--
Physical activity	
Facilities, easy to access, with information outreach	Yes
Group programs, such as walking groups	Yes
Individualized-goal group programs, such a *Active for Life*	Yes
Stair-use reminders	--
Sun exposure	
Education and policy (hats, sunglasses, sunscreen) in recreational settings	--
Tobacco	
Co-pays / deductibles for cessation treatment reduced or eliminated	--
Reminder systems for providers	--
Restrictions / bans (prevent secondhand smoke exposure)	Yes
Telephone counseling	Yes

Source: Task Force on Community Preventive Services, 2003

Employer-sponsored health promotion and disease management programs

Worksite wellness and chronic disease control programs are most effective when they focus on a limited set of risk-reducing behaviors and clinical preventive services; this helps to avoid employee confusion and leverages the greatest return from the programs. The data from the studies listed above indicate that tobacco cessation, increased physical activity, and eating to maintain or decrease current weight are productive areas for employers to develop health promotion programs. Diabetes, cardiovascular disease, cancer, and asthma are excellent targets for workplace-based disease management programs.

There are many examples of successful health promotion and disease management programs. The following are some specific examples of employer-based programs.

Tobacco Cessation:

Tobacco use is one of the leading causes of death and disability in the U.S., and tobacco cessation programs are common in employer-sponsored wellness efforts. The *U.S. Public Health Service Clinical Practice Guideline: Treating Tobacco Use and Dependence*, published in June, 2000 summarizes thousands of studies on all aspects of tobacco cessation and recommends the following elements be included for an effective program:

- Physician advice to quit
- Counseling by qualified cessation specialists in one of the following forms – telephone, face to face, or groups
- Phramacotherapy in one of the following forms—nicotine gum, patch, inhaler, nasal spray, or bupropion (Zyban®)

The guideline's summaries show that the success rate for quitting "cold turkey" is only about 5%. Adding the elements listed above increases the long-term quit rate to 15-30%, three to six times the "cold turkey" quit rate. Here are results of four tobacco cessation programs:

The Carpenters Health and Welfare Trust of Western Washington[7]: This was a carefully designed study on the costs and benefits of tobacco cessation involving 325 participants who had been on the program for at least 12 months. At one year after registration, 27.5% were not smoking. The pilot program costs were 6¢ per hour of contributions (about $11 per full-time employee per year). Ninety-four per cent of the participants were highly satisfied. The estimated savings due to reduced use of health care to treat tobacco-related illness are estimates to be worth 15 times the program's cost, for an annual return on investment of over 27%. During the first two years of the program, 12.6% of all smokers enrolled.

1. ***The Uniform Medical Plan***[8]: The UMP is a self-insured preferred provider health insurance plan offered by the Health Care Authority that is available to 90,000 Washington State employees, both active and retired, and their dependents. Beginning in January 2000, UMP implemented a telephone-based tobacco cessation program. A total of 1,334 UMP members enrolled in the program between January 2000 and December 2002. In the second year of the program, UMP and its program provider evaluated the impact of the $17.50 program registration co-payment and standard pharmacotherapy co-insurance on program participation by suspending the co-payment and co-insurance for all plan members enrolling from November 1 – December 31, 2001.

   Suspending the co-payment and pharmacotherapy co-insurance appeared to have a strong, positive influence on program enrollment. Participation in November and December of 2001 soared to 341 and 270 respectively, compared with enrollments of 31 and 20 for November and December of 2000. The co-payment was reinstated starting January 1, 2002 and enrollments dropped from 270 in Decembers 2001 to only 23 one month later. These results were replicated when similar promotions were offered in 2002 and 2003.

[7] McAfee T, Montanari D, Tifft S, and Zbikowski S, "Preventing Premature Death: Tobaccos Treatment Services for Employees," Employee Benefits Journal, March, 2004
[8] Id.

2. ***Group Health Cooperative***[9] has compared four different tobacco cessation program designs ranging from 50% cost sharing for both medication and phone counseling to 100% health plan coverage (with usual pharmacy co-pays.) The study found that the most effective design for successfully getting the largest numbers of smokers to quit was 100% health plan coverage for this benefit. With 100% coverage and telephone delivery of counseling, levels of participation as high a 12% of employees were reached.

3. ***Weyerhaeuser***[10]*:* In August, 2003, a team of experts from the University of Washington Health Promotion Research Center and the American Cancer Society reviewed the health promotion and disease management programs for employees and family members at Weyerhaeuser. The team made recommendations for Weyerhaeuser's tobacco cessation program that incorporate the same kinds of findings noted above:

    - Add health insurance coverage for the full range of effective tobacco cessation treatments—clinical counseling and over-the-counter nicotine replacement medications to reduce the number of employees who use tobacco.

    - Remove co-pays and deductibles for effective and cost-effective preventive services to increase their use.

    - Contract with health insurance companies to build measurement/accountability systems with feedback to providers.

    - Contract with health insurance companies to build reminder systems for both patients and providers, and

    - Contract with health insurance companies to implement standing orders that make delivery of appropriate services the automatic default wherever care is delivered.

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[9] Id.
[10] Harris J, et al, August 2003

- Contract with a quit-line vendor to provide telephone-based tobacco cessation services to increase cessation options for tobacco users.

- Ban or restrict smoking at all worksites to protect non-smoking employees and reduce fire risk and legal liability.

The report notes that these options differ in their complexity and will require considerable work, dialogue, and time to implement. The report notes, however, that the evidence of effectiveness of each is compelling. Some may be best achieved by purchasing add on services from vendors outside of their insurance carriers.

Based on case studies like these, The Center for Health Promotion[11] recommends that employer-sponsored tobacco cessation programs include the following:

1. Obtain leadership agreement that helping employees quit smoking is good for business. Benefits design should be guided by an objective to encourage a significant fraction of employees who smoke to take advantage of the benefit.

2. No financial barriers—No co-pays higher than for the rest of the plan.

3. Easy access to benefit –If the program can be accessed through a workplace benefit, employees will enroll and will use the program, and many will succeed with quitting smoking.

4. Telephonic counseling that is convenient and does not detract from work time. On-site groups can also conveniently reach some people, however community programs are very unlikely to be used by more than a tiny fraction of employees.

5. Cover counseling and pharmacotherapy in the benefits — Encourage the use of both.

6. Market and promote the cessation benefit internally — The employer must be committed to marketing the benefit to its employees to ensure understanding of the benefits and its merits.

[11] McAfee T, et al, March, 2004

7. Benefit use tends to also improve with the adoption of a smoke-free workplace policy.

Obesity:

The Centers for Disease Control and Prevention now list overweight and obesity as a health crisis second only to tobacco use. According to the CDC, 64.5% of adult Americans are overweight or obese, resulting in annual costs of $117 billion.

Employer-based programs can effectively reduce employee's weight – and employers' costs. The Health and Human Services 2003 report, *Prevention Makes Common "Cents,"* cites unnamed health promotion and disease management prevention programs that "return a median of $3.14 for every dollar spent." The National Business Group on Health toolkit *Best Practices and Strategies for Weight Management: A Toolkit for Large Employers* lists companies and suppliers that seem to have winning formulas.

Other experts warn, however, that trying to make obese people thinner is a losing battle. These experts suggest that supporting efforts to help thinner people stay within acceptable weight ranges and keeping overweight and obese people from gaining even more is a better investment. Glenn Gaesser, professor of exercise physiology at the University of Virginia and author of *Big Fat Lies: The Truth about Your Weight and Your Health* (Gurze, 2000) argues that the health problem is not the obesity *per se*, but lifestyle.

Gaesser contends that people who have BMIs over 30 who cut out junk food and start exercising—30 minutes a day, five days a week—will "… improve their health in a matter of days, even if they don't lose weight." Gaesser also contends that lean people who fail to exercise and eat right are getting a false sense of security when they look at their BMI. Lifestyle and fitness, says Gaesser, are more powerful predictors of risk than weight.

Gaesser's contention about the value of increased exercise has been borne out in a study by Feifie Wang and colleagues at the University of Michigan reported in the May, 2004 Journal of Occupational and Environmental Medicine. Wang studied 23,500 workers at General Motors, where he estimated that getting the most sedentary obese workers to exercise would

save about $790,000 a year, or about 1.5% of health care costs for the whole group. This would translate to $7.1 million per year across the whole GM workforce.

Of the whole group of workers studied, about 30% were of normal weight, 45 % were overweight, and 25% were obese. Annual health care costs averaged $2,200 for normal weight, $2,400 for the overweight, and $2,700 for obese employees. Among workers who did no exercise, health care costs went up by at least $100 a year, and were $3,000 a year for obese workers who were sedentary.

Wang found that adding two or more days of light exercise – at least 20 minutes of exercise hard enough to increase heart rate and breathing—lowered costs on average $500 per employee per year. The study authors concluded, "This indicates that physical activity behavior could offset at least some of the adverse effects of excess body fat, and in consequence, help moderate the escalating health-care costs."

Employers choosing to target obesity directly in the health promotion and disease management programs will need to think through their approach carefully.

Weyerhaeuser[12]*:* The team studying Weyerhaeuser's health promotion programs noted that Weyerhaeuser is an exceptional employer in that they already provide on-site gyms, bicycles and other physical activity facilities, and they sponsor two programs, *Active for Life* to promote physical activity and participation in the American Cancer Society's *Relay for Life* programs. However, the team suggested the following additions to Weyerhaeuser's current programs:

1. Build sidewalks and walking trails, or identify walking routes at worksites, to encourage and enable employees to increase their level of physical activity.

2. Install stair-use reminders at worksites, particularly those with elevators, to encourage employees to increase physical activity.

[12] Harris, et al, August 2003

Ten Low-Cost Ways Employers Can Address Obesity

1. Offer voluntary heath risk appraisals through health plans and health professionals to obtain base line data.
2. Requires vendors to include health food choices in cafeterias and vending machines.
3. Provide nutrition information for cafeteria selections.
4. Offer on-site classes related to nutrition and exercise.
5. Offer "Weight Watchers at Work" or other special targeted programs to support employees.
6. Create safe walking paths and encourage the use of stairs in lieu of elevators.
7. Distribute health education materials.
8. Sponsor "lunch and learnt" sessions on fitness, healthy lifestyles, stress management and other weight-related "triggers."
9. Consider an allowance for health clubs.
10. Support community-based weight management programs and fitness resources, such as biking paths, heart-healthy dishes in restaurants and events.

Source: National Business Group on Health

Other Workplace-based Health Promotion Opportunities

The team studying Weyerhaeuser's health promotion programs had several other recommendations that other employers may also want to consider[13]:

1. Require use of sun-protection equipment (wide-brimmed hats, sunglasses, sunscreen) by all out-door workers to decrease employee risk of skin cancers and cataracts.

2. Deliver select clinical preventive services (flu shots, pneumococcal immunization, and other) at the worksite to both active and retired employees to reduce risk for contracting diseases.

[13] Harris J, et at, August, 2003

3. Offer chronic disease management programs to educate affected employees on self-care of their diseases.

4. Implement a system to monitor (at the total group level, not the individual employee level) employees' risk behaviors and use of clinical preventive services to evaluated effectiveness of the prevention investment.

Calculating ROI for Disease Management and Health Promotion Programs[14]

The size, demographics and health claims data for an employee population are important factors in determining the appropriateness of a particular health promotion or disease management program. ROI measurements are dependent on a number of variables. There are two major pitfalls in calculating an accurate ROI – regression to the mean and selection bias. Regression to the mean refers to the tendency of high-cost/high utilization patients (outliers) in one plan year to incur closer to average costs in the following plan year regardless of disease management initiatives.

For example, a patient might have high expenses one year due to a surgery, and the next year participates in a disease management program. The lower expenses in the second year might be credited to the disease management program when in reality costs would have likely fallen (regressed to the mean) without the disease management intervention.

Selection bias refers to measuring costs and outcomes for disease management participants only, excluding those not enrolled in the program who have the same chronic conditions. The cost savings are inflated because the participants are more inclined to improve their health than non-participants. ROI can also be inflated in disease management programs that only enroll the highest risk/sickest individuals.

The most reliable way to determine the effectiveness of a disease management program is to track claims data for all plan participants with a particular condition and compare any changes in claims costs with any change in claims cost for all plan members. The next level

[14] See discussion of "Return on Investment (ROI) in Disease Management," In Focus, Fourth Quarter 2003

analysis involves isolating a group with a particular chronic condition and comparing the costs of those people utilizing the disease management program with those not participating.

There is no reliable way to estimate the outcomes program participants would have had if they had not participated. In the final analysis, determining ROI means looking at total health care costs for years *prior* to implementation of a disease management program, versus total health care costs for plan years *after* implementation of the program.

Most often employers will use ROI to measure the financial impact of a disease management program; however ROI does not tell the whole story. Net or absolute, savings provide a more bottom-line assessment of the value of a disease management program. As illustrated below, the program with the largest ROI does not necessarily result in the greatest net savings.

Return on investment (ROI) versus absolute savings.

By looking at ROI, one would choose to implement program 2, but the program that offers the greatest savings is actually program 4.

Program #	ROI	Gross Savings	Program Cost	Net Savings
1	1.39	$800,000	$600,000	$200,000
2	2.0	$800,000	$400,000	$400,000
3	1.5	$2,100,000	$1,400,000	$700,000
4	1.2	$6,000,000	$5,000,000	$1,000,000
Source: American Healthways, *Calculating Return on Investment, 1999*				

Using claims data to identify potential disease management candidates has some problems. First, claims data does not identify high-cost users early on. A truly predictive model would detect patients prior to the start of high costs. Second, medical claims data is often miscoded. To get around this problem requires an actual review of patient charts to identify potential disease management participants.

The long term cost effectiveness of disease management programs has not been determined.[15] Most studies capture only one to two years of data. Even so, disease

[15] Id.

management programs have the potential for significant cost savings, but only plan sponsors with patience and perspective will realize the long-term benefits. Employers with high employee turnover may not be the best candidates for disease management programs. There are up-front costs to establish data management systems and increased health care utilization because prevention includes increased use of prescription drugs, laboratory tests and physician visits. Short term ROI for most disease conditions (except, perhaps, high risk pregnancies, diabetes and asthma) will be minimal.

Finally, enrolling sufficient numbers of employees in disease management programs will be an on-going challenge. Extensive communication and education efforts are essential, and using financial incentives, such a waiving the co-pays for prescription drugs, may increase participation and encourage compliance. Automatic enrollment based on claims data also substantially increases participation rates over self enrollment.

Attracting and Retaining Participants in Health Promotion and Disease Management Programs

In order to gain maximum ROI for health and disease management programs it is essential to get employees and their family members to participate. William Atkinson[16] has developed the following check list of ways to attract and retain participants in disease management and health promotion programs based on a series of interviews with executives at health plans and organizations involved in disease management programs:

1. Identify the population accurately. Augment claims data with information from case managers and providers.

2. Make sure employees know about the program and what it can do for them. Publicize the program before it is launched.

3. Present the larger picture, too. Talk about both improving the employee's health and well-being and saving everyone money on health care costs.

[16] Atkison W, "Attracting and Retaining Participants: A Checklist," Healthplan Magazine, Nov/Dec 2003 pp 44-45

4. Reassure employees about how their information will be used. It is essential that employees trust that their data will be kept confidential and will not be used to discriminate against them.

5. Explain that the disease management program is not redundant. Make sure employees understand that the program is not a duplication on what their personal physician is doing but rather a complement to it.

6. Enlist providers and other consumers to spread the message.

7. Be sensitive to people's readiness for change. All stages of readiness (from denial to eager to be involved) and all points on the disease continuum (from recent diagnosis to long time adaptation) must be taken into account when approaching candidates for a disease management program.

8. Remember the importance of timing. One good time to reach patients is when they have just been released from the hospital.

9. Don't tell people what to do. Encourage members to stop smoking, start exercising, and take medication more consistently, rather than telling them.

10. Make it convenient. Onsite programs and classes, Internet resources and other easy to access program elements encourage participation.

11. Create a variety of ways to interact with the program. No one size fits all – make available telephone intervention, personal visits, Internet messaging, voice automated technology, and information in the mail.

12. Offer incentives. Reduce employee portions of costs for health services, add more money to the employee's health reimbursement account or provide other incentives.

13. Train nurses for the first contact. Programs that include nurse help lines should train nurses to convey the right information, provide encouragement and follow up.

14. Encourage participants to set personal goals. People are not motivated by what may happen 20 years from now. They need something that will make them feel better in the near term.

15. Establish on-going communication. Keep the communications coming even after the early adopters are on board.

Appendix C

Prescription Drug Costs, Issues, Strategies

Prescription Drug Trends, Issues and Possible Strategies
Follow-Up Discussion

By Andy Stergachis, Ph.D., R.Ph., Professor of Epidemiology and Affiliate Professor of Pharmacy, University of Washington. stergach@u.washington.edu

A. Key Findings

1. The use of and spending for prescription drugs is rising with over 3 billion prescriptions dispensed and $140 billion spent on drugs in the U.S. in 2001. Prescription drug spending is now about 11% of personal health care spending - one of the fastest growing components. Growth in prescription drug spending has been in the double-digits in each of the past 7 years.

2. The payment sources for prescription drugs have shifted from consumer out-of-pocket to employer-based private health insurance. The latter now accounts for about half of all prescriptions dispensed in the U.S.

3. Three main factors are driving the increases in drug spending:[1]

    a. Increases in the number of prescriptions used accounts for 47% of the overall increase. At present, overall drug use in the U.S. is approximately 11.6 prescriptions per person per year.

    b. Changes in types of drugs used with newer, higher priced drugs added or replacing older, less-expensive drugs. This accounts for 27% of the overall increase. This is influenced by research and development, the FDA approval process and direct-to-consumer (DTC) advertising.

    c. Drug manufacturers' price increases for existing drugs accounts for 26% of the increase. According to IMS Health, retail prescription prices increased an average of 7.3% a year from 1992-2002, or double the average inflation rate.

4. A preliminary analysis of drug utilization for King County (KC) employees was performed using summary, aggregated data obtained from AdvancePCS (the pharmacy benefits manager for 77% of KC employees) and Group Health Cooperative (GHC). Results showed markedly different utilization patterns in the top 50 drugs between plans, with a greater use of generic drugs and a lower cost per prescription for KC employees who are members of GHC.

[1] Prescription Drug Trends. Kaiser Family Foundation: Melno Park, CA, May 2003. www.kff.org.

B. Proposed Strategies

1. Expanded use of Drug Formularies

At the center of most pharmacy benefits programs is the drug formulary system, although plans vary in their degree of restrictiveness or control of the drug formulary. A drug formulary is a continually updated list of prescription drugs which represent the current clinical judgment of providers and experts in the diagnosis and treatment of disease. Recall, an important cause of rising expenditures on drugs is the shift in mix of drugs prescribed – where more expensive drugs are being prescribed in place of less expensive older medications. Preferred drug lists, such as the Washington State Evidence-based preferred drug list, www.rx.wa.gov, are related programs intended to promoting the prescribing of preferred drugs. A regional approach to the use of formularies and/or preferred drug lists should be explored.

2. Maximize the Use of Generic Drugs.

Generic drugs play an important role in slowing the rate of cost increases for prescription drugs. Looking ahead, no fewer than 40 key drugs (worth more than $40 billion per year) are projected to lose patent protection by 2007. One PBM (Express Scripts) estimates a savings of 1.2% in plan drug costs for every 1% increase in generic dispensing rate. Key findings from the preliminary analysis of KC data indicate that the use of generics varies between plans for KC employees and their dependents, with GHC demonstrating a greater use of generic drugs. Coalitions have formed in other parts of the country to promote generic drugs (e.g., California, Michigan). Our region should consider a coalition approach to promoting the use of generic drugs.

3. Tiered Patient Cost-Sharing Programs where consumers pay less out-of-pocket for less expensive drugs.

Tiered prescription plans incentivize consumers to choose lower-cost products by offering different cost-sharing formulas based on formulary status and whether the product is a generic or a brand-name drug. Cost sharing increases patient awareness and accountability for the cost of pharmaceuticals. There is evidence that cost-sharing reduces total plan expenditures on pharmaceuticals through shifting some of that cost onto the consumer and reduces the amount of "unnecessary" use of prescription medications (e.g., Harris et al, 1990). As part of the drug formulary provision, plans often implement incentives (or restrictions) for members to utilize mail-service pharmacies and specialty pharmacies, where appropriate. Tiered co-payments are presently used by KC employees.

4. Promote the Use of Evidence-Based Medication Therapy and Drug Utilization Management Services

Medication therapy management (MTM) is considered to be a patient-specific and individualized service or set of services provided usually by a pharmacist directly to the patient or caregiver. The patient specific nature of MTM is complementary to, but different

from, population-focused quality assurance measures for medication use, such as drug utilization management and generalized patient education and information activities. These services are designed to help ensure that the goals of drug therapy are met and may include monitoring and promoting adherence/persistency with medication regimens, reductions in unnecessary polypharmacy, and monitoring for adverse effects of medications. There is evidence on the effectiveness (e.g., http://www.ahrq.gov/clinic/pharmimp, http://www.guild.org.au/public/researchdocs/reportvalueservices.pdf) and models exist for providing pharmaceutical services to persons with chronic diseases involving the employer and provider community (e.g., The Asheville Project).

5. Patient/Employee and Provider Education and Incentive Programs

Patient/employee education can take many forms, including access to tools to view out-of-pocket costs for drugs, Web sites, newsletters, etc. Physician and other provider education programs could, for example, promote the use of generic drugs, present appropriate evidence-based practice guidelines, and provide provider-specific prescribing profiles. Such efforts should utilize best practices, in terms of interventions (e.g., academic detailing) and technology (e.g., electronic prescribing and real-time notifications).

C. Postscript

While the above strategies have been shown to manage drug costs, some carry risks of creating unintended potential consequences, such as prescribing of less desirable substitutes and/or cost-shifting into other health care services, or onto the consumer. Thus, it is important that prescription drug management efforts are consistent with good clinical practice. Prescription drug importation from Canada or other foreign countries is not a recommended strategy as it is unlawful and carries potential health safety risks, in the absence of safety certifications. However, several of the above strategies are based on policies in use in Canada.

Appendix D
Government Role in Improving Regional Health

Improving Health in our Region

The Task Force carried out its work against a backdrop of significant health status issues that face the population throughout the Puget Sound region. While improving the quality of health care that people seek and receive is critical, it is also imperative that broader preventive approaches expand to address some of the underlying causes of the health problems the population is experiencing.

Public health plays a lead role in designing, implementing and evaluating preventive methods for improving people's health. The governmental mandate for public health entities offers a platform from which to address health issues from a community or population basis. This role complements the role the health care system plays as it provides care to individual patients. Public Health has the ability and the role of bringing together a broad range of public and private partner organizations and agencies to work to prevent chronic diseases, craft injury prevention programs, and provide surveillance for disease outbreaks and prevention or mitigation strategies.

In order to improve the region's health, Public Health and local health care professionals must work together to address a number of critical issues. For example, the current obesity epidemic offers and excellent opportunity for the local health care delivery systems to interface with Public health to achieve sustainable improvements in health. Public Health can develop health education materials and community resources for the residents of the region to access with regard to health eating and active lifestyle. Health care delivery systems and worksite health programs can use these materials and refer people to community resources for physical activity or nutrition classes. The proposed regional partnership must have a strong linkage to the Public Health system in order to ensure effective interactions for the population with both individual providers and the resources available within local communities. Public Health strategies may also be applicable to the worksite, and the Task Force recommends that coordination of worksite, public health, and health care delivery strategies be coordinates whenever it makes sense. A publicly funded smoking cessation program, for example, might be something to which a worksite health program would refer employees.

Government has a critical role to play in promoting and improving the health of communities.

Public Health, and other governmental agencies work together to ensure that interventions for health are coordinated. In King County, for example, a study to understand and identify how travel patterns, health and overall quality of life are impacted by specific land use and transportation decisions is being sponsored by the Departments of Transportation, Development and Environmental Services, and Public Health--Seattle and King County. King County's Land Use, Transportation, Air Quality and Health Advisory Committee serves to integrate this varied expertise into land use, transportation and health policy to improve health.

The role of government is key in leveraging resources to improve the overall health of the region's residents. This contribution, if effectively leveraged, has the potential to decrease the actuarial risk for those who are funding health care benefits, and to help hold down costs for individuals seeking care. Public messages and advice about maintaining healthy eating habits and active lifestyles, and preventing disease and injuries can echo throughout worksites, health care facilities and community meeting places, thereby complementing the advice offered by individual health care professionals. The partnership model recommendations include the interaction of Public Health and other governmental strategies for chronic disease prevention and health improvement with the overall strategies for cost and quality performance improvement.

Appendix E
Matrix

	Evidenced Based Clinical Decision Support Available?	Improved Quality Leads to Decreased Costs? (ST/LT)	Improved Quality Leads to Increased Health?	Evidence of Unnecessary Resource Variation?	Evidence of Unnecessary of Quality Variation?	Consumer Involvement in Care Leads to Decreased Costs?	Consumer Involvement in Care Leads to Improved Health?	Proven Preventive Strategies Lead to Decreased Costs (LT)?	Improved Quality Leads to Increased Workplace Productivity?	Healthy Lifestyle Impacts Cost?	Healthy Lifestyle Reduces Disease Impacts?
Area 1: Chronic Disease Management											
Coronary Artery Disease	Yes	Yes (ST/LT)	Yes	Yes	Yes	Yes (LT)	Yes	Yes	Yes	Yes (ST/LT)	Yes (LT)
Pediatric Asthma	Yes	Yes (ST/LT)	Yes	Yes	Yes	Yes (ST/LT)	Yes	Yes (LT)	Yes	Yes (ST/LT)	Yes
Diabetes	Yes	Yes (ST/LT)	Yes	Yes	Yes	Yes (ST/LT)	Yes	Yes	Yes	Yes (ST/LT)	Yes
Depression and Anxiety	Yes	Yes (LT)	Yes	Yes	Yes	TBD	Yes	TBD	Yes	TBD	TBD
Hypertension	Yes	Yes (LT)	Yes	Yes	Yes	Yes	Yes	Yes	TBD	Yes	Yes
Congestive Heart Failure	Yes	Yes (ST/LT)	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes
Area 2: Acute and Episodic Care											
Low Back Pain	Yes	Yes (ST/LT)	Yes	Yes	Yes	Yes	Yes	TBD	Yes	Yes	Yes
Maternity Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	Yes
Digestive Disorders (TBD)											
Musculoskeletal Disorders (TBD)											
Breast Cancer / Colorectal Cancer (TBD)											
Procedure Rates:											
Myringotomy	Yes	Yes (ST)		Yes	TBD						
Tonsillectomy	Yes	Yes (ST)		Yes	TBD						
Cholecystectomy	Yes	Yes (ST)		Yes	TBD						

	Evidenced Based Clinical Decision Support Available?	Improved Quality Leads to Decreased Costs? (ST/LT)	Improved Quality Leads to Increased Health?	Evidence of Unnecessary Resource Variation?	Evidence of Unnecessary of Quality Variation?	Consumer Involvement in Care Leads to Decreased Costs?	Consumer Involvement in Care Leads to Improved Health?	Proven Preventive Strategies Lead to Decreased Costs (LT)?	Improved Quality Leads to Increased Workplace Productivity?	Healthy Lifestyle Impacts Cost?	Healthy Lifestyle Reduces Disease Impacts?
Laminectomy	Yes	Yes (ST)		Yes	TBD			Yes		Yes	
Cardiac Catheterizations	Yes	Yes (ST)		Yes	Yes			Yes		Yes	
Coronary Artery Bypass Grafts (CABG)	Yes	Yes (ST)		Yes	Yes			Yes		Yes	
Angioplasty	Yes	Yes (ST)		Yes	Yes						
Prostatectomy		Yes (ST)		Yes	TBD						
C-Section	Yes	Yes (ST/LT)		Yes	Yes						
Pharmaceutical Prescribing Profiles	Yes	Yes (ST/LT)	Yes	Yes	Yes	Yes	Yes			Yes	
Area 3: Preventive Services											
Childhood Immunizations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Smoking Cessation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Mammograms	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Cervical Cancer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Pneumococcal Vaccine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Chlamydia Screen	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Healthy Weight	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Area 4: Safety Practices											
Medication Errors	Yes	Yes (ST)	Yes	Yes	Yes	Yes	Yes				
Surgical Wound Infections	Yes	Yes (ST)	Yes	Yes	Yes	Yes	Yes	Yes			

	Evidenced Based Clinical Decision Support Available?	Improved Quality Leads to Decreased Costs? (ST/LT)	Improved Quality Leads to Increased Health?	Evidence of Unnecessary Resource Variation?	Evidence of Unnecessary of Quality Variation?	Consumer Involvement in Care Leads to Decreased Costs?	Consumer Involvement in Care Leads to Improved Health?	Proven Preventive Strategies Lead to Decreased Costs (LT)?	Improved Quality Leads to Increased Workplace Productivity?	Healthy Lifestyle Impacts Cost?	Healthy Lifestyle Reduces Disease Impacts?
Area 5: Service Quality											
Provider/Patient Communication	Yes	Yes	Yes		Yes	Yes	Yes				
Appointment Wait Time	Yes	Yes			Yes	Yes	Yes		Yes		
Use of Electronic Communication		Yes		Yes	Yes	Yes			Yes		