Waking the health plan giant: Group Health Cooperative stops counting sheep and starts counting key tobacco indicators

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Introduction
Group Health Cooperative of Puget Sound (GHCPS) is a consumer-governed health organisation with over 500 000 members. It has a 20-year track record of consciously attempting to improve the quality of preventive care for its members. We think of ourselves as a managed care organisation attempting to metamorphose into a health improvement organisation.1 This means we are not only in the business of managing health care, but we are also committed to improving the health of our members and the community. I will describe the efforts of GHCPS to develop and maintain an effective and comprehensive evidence-based approach to decreasing the prevalence of tobacco use among our members. This effort has become one of our showcase examples of what it means to be a health improvement organisation. I will pay particular attention to the role of measurement in success, including our own measurement systems, and the new tobacco Health Plan Employer Data and Information Set (HEDIS) measure.

In 1991, a group of physicians, nurses, planners, and researchers began meeting regularly to discuss what GHCPS could do, in an organised way, about tobacco use. This work was sponsored by our Committee on Prevention, and led to the formation of a detailed plan that embodied most of the elements of the National Cancer Institute’s “4A” model for clinical smoking control. The plan also closely resembled the recently published Agency for Health Care Policy and Research smoking cessation guideline.2 It called for systematic identification, advice, assistance, and follow up for all tobacco users at all encounters with our system. It also called for the provision of coverage for smoking cessation services, as well as legislative and other community efforts. In the next two years, this agenda was adopted by our developing quality improvement infrastructure. Decreasing the prevalence of tobacco use became GHCPS’s number one prevention priority.

Over the past decade, smoking prevalence in our enrollees has declined from 25% to 15%, as measured by large surveys; whereas prevalence in the state of Washington has declined only from 25% to 23%. Although we cannot know for certain how much of this is directly due to our efforts, even if it were only 1%, this is a public health achievement.

We have had some remarkable successes. Our most important success has been implementing these changes systematically in a large health system through a quality improvement process that did not depend on an infusion of research dollars. Our second success has been maintaining our improvements over time. I should like to pass on some of the “pearls” we have learned over the years.

Clinic-based quality improvement tobacco work
There are three basic prerequisites for successful implementation efforts.

First, keep at it—it takes years to change provider and system behaviour (just like individual behaviour!). We found that, especially in the first several years, we had a profound tendency to relapse to previous patterns of behaviour.

Second, clearly identify individuals at different levels of the organisation accountable for specific, measurable outcomes—feed back results to these individuals as to how they and the areas they are accountable for are doing. This includes the chief executive officer (CEO) and the medical director, who were identified as having critical roles to play in providing clear unambiguous messages of support for the efforts, as well as support when needed for budgetary commitments. It applies to a clinic manager who has been charged with ensuring that all patients passing through their clinic have their tobacco use status noted. It also applies to individual medical assistants, nurses, pharmacists, and physicians.

Third, keep changes simple and offload time consuming tasks. We planner/improver types who have been converted to the importance of addressing tobacco may forget or ignore the incredible pressures and complexity of work in healthcare. The ideas for improvement that we come up with can be fabulous, but unless they are easily integrated into existing ways of working, they are very unlikely to be permanently incorporated into the fabric of day-to-day practice. We especially found that if we could offload complex tasks, it was deeply appreciated by our practitioners. An example was our referral process for our smoking cessation programme. Initially, because it involved the use of a prescription drug, we created an incredibly ingenious system for referral that included a beautifully executed form for the physician to complete. We tried it for several months, and ended spending hundreds of hours telephoning doctors, begging them to fill out the form, with frustrated patients waiting, and frustrated doctors feeling harassed, and frustrated cessation specialists feeling they...
were wasting their time. So we took a deeper look at what was really needed, and ended up jettisoning the form, and allowing patients to register directly with the programme by dialling a toll-free (freephone) number, with a much simpler feedback loop to the physician if they ended up being recommended for adjunctive drug therapy. The entire system gave an enormous sigh of relief. Keep it simple!

**Role of measurement**

If measurement systems are already in place, we try to tie measuring tobacco use into them. When we started measuring tobacco use, we used an annual chart audit in all of our clinics (250 charts per clinic), and a series of questions that were embedded in our regular system satisfaction survey. With these, we were able to generate clinic-level reports. The reports were somewhat useful for motivating clinic managers, but not too useful for individual accountability at the provider level. And the cycle time was so long that people really did not know if what they were doing was working. We moved, by popular demand, to doing quarterly chart audits as well, in areas where change was being implemented. The quarterly audits allowed us to give more immediate feedback so that new processes could be evaluated in a timely fashion. To effect change at the provider level, we now have some of our measures embedded in our clinic practice report. This is a report which our providers receive informing them of their performance on items such as mammography rates, pap screening, patient satisfaction, and care of patients with coronary disease and diabetes.

In the future, we are planning to embed, within our automated systems, key tobacco indicators and evidence. This will enable us to identify what is going on in our population, as well as what our system and providers are doing. This is a major undertaking and will take some time. We should also like to develop a tobacco use registry, similar to those for diabetes and heart disease, so that providers can intervene and so that we can intervene at a population level with additional tailored support.

**HEDIS measurement**

How have the HEDIS tobacco measures fitted into our measurement plans? The details of the HEDIS measures and the processes for obtaining them have been reviewed in detail by Dr Ron Davis in previous lectures (see pages S36–S40 of this supplement and ref 3). We recently received our first round of HEDIS results. With 1860 adult enrollees surveyed, we had a 55% return rate, which is, alas, one of the highest return rates in the country. We had a prevalence of 14.8% for smoking, and recollection of advice to quit was 69%. The first is lower and the second higher than national averages. Even though we have better quality data from our internal processes, with much higher response rates, we had not been able to compare this internal data with other organisations because of variation in measurement definitions and technique. So the HEDIS data has been useful as an inspiration to further action. In fact our second year of HEDIS data showed our patients’ recollection of advice to quit has climbed to 77%, which is in the top 10% of plans. If we want to continue to be viewed by our members and the community health plans as one of the main leaders in this area, we need to think about what will be our next steps to improvement.

The most important thing to remember about measurement is that we are measuring to improve, not just to measure. To improve, we need to make sure we are giving feedback cycles to process owners. If an administrator in our central administration office is getting the HEDIS report and shelving it, so our delivery system never receives it, and the managers who have the capacity to effect change never receive it, it has not accomplished anything.

In addition to giving feedback, we are building in positive and negative consequences related to performance. We attempt to reward positive performance with social recognition, which is extremely powerful in organisations like ours. We have given award certificates to clinics and individual physicians with high performance measures, as well as public recognition in medical director/CEO reports. We are experimenting with modest financial incentives for meeting performance goals. When performance is variable between practices, we search for reasons for the variation. We initiate discussions. If measurements are low, we try to figure out what the barriers are and correct them. If measurements are high, we examine how the team managed to perform so well and then disseminate the lessons learned. We distribute a memorandum to all of the clinics describing how the top performers accomplished their successes. Chart identification of smokers has steadily risen (from 1992 to 1997, figure 1). We are not in the maintenance phase regarding charting identification of tobacco status. All 29 of our primary care clinics have identified over 85% of tobacco users for two consecutive years. The last quarter of 1997 showed an overall rate of 96%. The challenge is to make sure that this continues.

Provider advice is more challenging. Chart documentation of provider advice has doubled from approximately 20% to approximately 40%, but is still short of our goal. Interestingly, our southern region, which experimented with monetary incentives, had the highest documentation rate (52%). The HEDIS measure (patient recollection of advice to quit) ana-

![Figure 1 Primary care: tobacco status identification on all charts.](http://tobaccocontrol.bmj.com/)

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Figure 2 Provider advice to smokers and patient recall (for both categories, p<0.05).

logue from our outpatient satisfaction survey has gone from the low 50s to about 71% (figure 2). We are also improving in terms of recall of advice about environmental tobacco smoke by smoking parents at their child’s most recent visit—moving up from the low 40s to almost 70% (figure 3).

We have been able to relieve a fear some providers have had that a systematic identification/advice system would alienate smokers. In fact, the clinics with the best performance had higher satisfaction rates reported by smokers.

Measurement for cessation programme improvement

Measurement has also been extremely useful in improving our smoking cessation programme. We knew we had a great programme in 1992. But if we had not started measuring the right things, we would have gone on having a great programme that was not having any impact on our population. We had to remember our objective: to decrease the smoking prevalence of our entire population. From that perspective, our implementation up to that point was very unsatisfactory. We had 180 participants a year with 400 000 to 500 000 members at that time. We then implemented a series of improvements, such as removal of access barriers in terms of cost, geography, and registration. We removed a significant portion of the cost of our cessation programme, including drug costs, when people took part in the programme. We made a telephone version available for people who did not want to take part in a group. We involved our primary care

system, integrated nicotine replacement therapy with built-in follow up, and developed a single cessation programme, Free & Clear, with strong quality controls and very rigorous measurement systems. We were able to track, at the simplest level, patient participation, which rose from 180 in 1992 to 2000 in 1993. Then we began to see a decrease in uptake in 1995 and 1996, so we changed our coverage as a result of this measurement. At the end of 1997, we found that over 3000 individuals were participating (figure 4).

Measurement has also allowed us to answer other questions. The first year after we made the group and telephone programmes more accessible, my recommendation to patients was that they enrol in the group programme if at all possible. I thought the group programme would be superior and they would have a better chance of quitting. Our data showed, however, that the one-year point prevalence quit rate (being smoke-free for at least a month before the telephone call, with non-responders counted as smokers) was 30%, regardless of whether the patient enrolled in group or individual programmes. As we continue to track this year after year, this has remained true. What I tell patients now and what we tell people in the plan is: “You can do whichever you want, the results are equivalent.”

We also used our measurements to influence policy—for instance, we took the results of the cessation programme and translated them into the language of evidence-based medicine. This approach emphasises concepts such as the number of people who need to undergo a treatment to achieve a desired outcome. The Free & Clear programme has a “number needed to treat” of about five. This means that for every five smokers who go through the cessation programme one successfully quits long term who otherwise would not have quit. There are very few other interventions in either preventive or therapeutic medicine that even come close to this level of effectiveness. Most have “numbers needed to treat” of 20, 100, or 500. Based on our total programme costs, our cost per quit is about $1200, and our cost per year of life saved is about $500. This compares with costs per year of life saved in the tens of thousands or hundreds of thousands for commonly accepted interventions such as lowering blood lipids, pap and mammography screening, and hypertension treatment. Although our methods for computing these smoking figures are relatively primitive compared with the complex formulas used by

Figure 3 Percentage of patients with one or more smokers in the household, and percentage recalling having received advice to avoid exposing their children to environmental tobacco smoke (p<0.05 for change from 1994 to 1996).
health economists, these types of locally derived figures have proven very helpful in building and sustaining support for our efforts in our administration and medical staff.

Measurement and research
The examples I have discussed above are areas where there is a firm body of scientific evidence that gives clear direction to the general nature of the tasks we want to accomplish using quality improvement techniques. However, there are some questions in the tobacco control arena which are difficult to answer simply by counting numbers, and where experimental design is necessary to determine if we are having a desired impact. As a non-profit organisation, part of our mission includes the advancement of knowledge. With the leadership of our Center for Health Studies, GHCPS has been involved in many smoking-related clinical trials over the past 15 years. These have included the original trial establishing the effectiveness of the telephone version of the Free & Clear programme,\(^5\) trials of clinic system interventions,\(^6\)\(^,\)\(^7\) pregnancy and post-partum interventions, non-volunteer telephone interventions,\(^8\) and economic analyses of the effects on healthcare use of smoking cessation.\(^9\) A study of the effects of varying co-pays (where the patient pays a small percentage of the cost) on benefit use helped lead us toward our decision to remove all co-pays for smoking cessation services in 1997.\(^10\) We are currently involved in a large, primary prevention time trial in children and a trial of bupropion examining behaviour issues and drug dosages.

Summary
Implementing a comprehensive approach to decreasing tobacco use in a large health plan requires hard work and commitment on the part of many individuals. We found that major organisational change can be accomplished and sustained. Keys to our success included our decision to remove access barriers to our cessation programmes (including cost); obtaining top leadership buy-in; identifying accountable individuals who owned responsibility for change; measuring key processes and outcomes; and finally keeping at it tenaciously through multiple cycles of improvement.

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