HARVARD MEDICAL SCHOOL
DEPARTMENT OF HEALTH CARE POLICY

RONALD C. KESSLER, PH.D.
PROFESSOR
180 LONGWOOD AVENUE
BOSTON, MA 02115-5899

TEL: (617) 432-3587
FAX: (617) 432-3588
E-MAIL: kessler@hcp.med.harvard.edu

To: Potential HPQ Users
From: Ron Kessler
Re: The Harvard Health and Work Performance Initiative: Background Information
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The HMS Health and Work Performance Initiative is an initiative of the John D and Catherine T MacArthur Foundation. The initiative grew out of a simple observation: That lack of information about the quality of services hampers the efficiency of employer health care purchasing. Purchasers have ways to evaluate the quality of the materials they purchase. They have ways to evaluate the cost-savings created by production technology innovations. They also have ways to evaluate the effects of direct-to-consumer ad campaigns. But, they generally do not have comparable ways to evaluate the effects of investments in employee health care. We set out to change this situation in order to increase the rationality of employee-sponsored health care purchasing.

Five pieces of information are needed to make rational health care purchasing decisions. None of these five is typically known to the employer.

1. What kinds of health problems do my workers have? How commonly occurring is each of these problems?
2. What are the effects of these health problems on work performance, sickness absence, industrial accidents, and disability?
3. What is the monetary value to me, the employer, of these performance decrements?
4. How effective are available interventions in reducing these decrements in my company? The word “interventions” is used broadly here to include both conventional medical interventions and other innovations that have effects on worker health, such as ergonomic chairs or on-site yoga classes for white collar workers with low back pain.
5. What are the ROI’s of these proposed interventions?

No wonder there is so little rationality in the employer-sponsored health care arena without answers to these questions!

But things don’t have to be this way. Some companies have assembled data to answer all five of these questions and have used this information to rationalize their employee health care services. The companies that are farthest ahead in this way are those that can most easily measure the performance of their workers, like the major companies that compete with the U.S. Postal Service to provide private delivery of express mail and packages. These companies have

exquisitely detailed tracking information on the number of packages delivered by each of their employees, lost packages, and motor vehicle accidents. By combining this information with employee health survey data and medical claims data, these companies have been able to pinpoint commonly occurring health problems that interfere with the speed and accuracy of deliveries and that lead to vehicular accidents. They have been able to evaluate the cost-effectiveness of interventions that treat these health problems. And, they have been able to use ongoing quality control monitoring to make sure these health care interventions continue to be effective over time.

This same level of rationality in the organization and delivery of health care can be achieved by most companies even when they lack detailed individual-level assessments of worker performance. The trick is to find proxy individual-level measures of worker performance that can be tracked over time and linked to information about employee health and health care. There are a number of ways to collect this kind of tracking data (e.g., 360 peer evaluations, annual performance reviewers with supervisors, etc.), but the easiest and the one that can be most widely generalized is to carry out annual employee health surveys.

Such surveys can collect self-report data from employees about their health problems, rates of treatment for these problems, and self-reported work performance. Methodological studies show that workers give surprisingly accurate reports about all these things. In cases where some archival data are available and can be linked to the employee surveys, such as medical claims data or performance review data, all the better.

Once these surveys are carried out the first time, they can provide answers to the first three questions posed above: How many of my workers have health problems of various sorts? How many of these conditions are being treated? What are the costs to me, the employer, of these health problems in terms of reduced worker performance, increased sickness absence, and increased disability? If an intervention is put into place to help improve the treatment of one of these conditions, changes in the tracking results obtained from annual replications of the surveys can be used to answer the last two questions: How effective is the intervention in reducing the bad outcomes that are costly to employers? What is the ROI on the intervention? The logic of these evaluations is identical to the logic of the test market studies and market tracking studies that are routinely carried out by the market research departments of most major corporations.

As part of the work carried out to support the World Health Organization (WHO) Global Burden of Disease initiative, a survey instrument was created to collect the above types of information. This is the instrument we are using in the Harvard Health and Work Performance Initiative. A PDF version of this instrument, the WHO Health and Work Performance Questionnaire (HPQ), is available at http://www.hcp.med.harvard.edu/hpq. The HPQ is a short, easy to administer, instrument, that generates valid data about the indirect workplace costs of health problems. More on the HPQ below.

The HPQ is being used in four ways.

1. WHO is administering the HPQ in national face-to-face household surveys in over 30 countries. A total of approximately 250,000 interviews are being carried out in these surveys. The U.S., Canada, Mexico, most Western European countries, and Japan are all among the countries included in these surveys.

2. The HPQ is being added to the annual Health Risk Appraisal (HRA) surveys of a number of large U.S. corporations. A number of these corporations are coming together as a consortium to compare and contrast results of these surveys for purposes of jointly targeting and evaluating health care interventions aimed at improving worker performance.
3. A number of pharmaceutical companies and disease management companies are adding the HPQ to the outcomes included in the experimental evaluations of their products. These will help create a cross-walk to the real-world evaluations that are being carried out in conjunction with the HRA surveys in the consortium of companies mentioned above.
4. We are carrying out market-wide HPQ surveys in several major health care markets that sample a small number of employees from each of a large number of companies. The goal here is to create a portrait of patterns and associations between worker health and performance in these markets.

The information collected in the within-company HRA surveys and the market-wide surveys can be used in exactly the same way to track trends in the prevalence of health problems among workers, the treatment rates of these problems, and the effects of these problems on work performance. Using methods developed in the initiative, the results regarding effects on work performance can be monetized, giving employers information on the financial costs of illness to their companies due to lost productivity and other workplace effects.

Our market-level surveys are collecting information from a small number of workers in each of a large number of companies. This is a disadvantage from the perspective of any one employer because the data are less precise. However, procedures described below are available to reduce this problem somewhat. The advantage of the market-level survey is that the cost of the survey to any one participating employer is trivially small. (HMS is paying for the survey in the participating markets in the short-run. However, if local employers want to institutionalize the survey as an annual tracking tool, they will eventually have to take over the cost.) It is also an advantage in the sense that a market-wide survey has much more potential than a national within-company survey to create a critical mass of data that can be used by local employers to monitor and change the behaviors of local health plans.

The HPQ surveys have separate short-term, intermediate, and long-term goals. The short-term goal is to provide information to employers about the indirect costs of untreated and under-treated employee health problems. This information can be used to enrich corporate thinking about the costs and benefits of investments in employee health care. Comparative data in the HPQ surveys about differences across health plans can lead to useful conversations and negotiations with individual plans to discuss outcome-based evaluations of their services. Decisions about corporate investment in disease management programs can be guided by the HPQ results as well.

The intermediate goal of the HPQ surveys is to help employers evaluate the return on investment (ROI) of new investment decisions regarding employee health benefits and programs. What are the implications of cutting the mental health benefit? Of expanding on-site nurse case manager programs in the workplace? Of changing the drug formulary? The HPQ can be of great value in charting changes both in rates of treatment and in the effects of treatment on work performance associated with such changes. The sensitivity of the analysis can be increased by making changes only in “test markets.” For example, a company with facilities in many areas of the country might want to test out a new disease management program only in two sites and to use the before-after HPQ tracking survey results to evaluate

the effects of the new program on sickness absence, productivity on the job, and work-related accidents among workers with the target condition before deciding whether to expand the program throughout the country. A similar sort of comparison can be made locally by comparing the workforce of companies that initiate a new disease management program versus other companies that do not.

The long-term goal of the HPQ tracking surveys is to provide ongoing quality assurance once test market studies have shown that changes in employee health benefits have a positive ROI. It's well and good to show that a new disease management program is cost-effective in its first year of operation in one or two test sites that the health plan knows are being carefully studied by the purchaser. How do we know, though, that the program will remain cost-effective when it is expanded? The HPQ tracking surveys can provide this kind of information. Do we continue to find the same high rate of treatment for the condition once the program is expanded? Do we continue to find the same significant reduction in sickness absence and the same significant improvement in work performance? We need answers to these questions to justify continued expenditures.

We have developed useful systems both to administer the HPQ survey either electronically or with paper and pencil surveys, either as a stand-alone survey or in conjunction with existing HRA surveys. We have established collaboration with a number of HRA firms, who now have set-ups to administer the HPQ as part of their existing surveys. We have created a benchmark dataset that can be used to generate norms for comparative purposes across HPQ surveys. We have developed software to generate useful reports for employers about the results of the HPQ surveys. We have also developed procedures to help employers and their consultants to evaluate the results of changes in employee health care benefits on work performance. We are working collaboratively with a number of organizations to disseminate these materials to employers throughout North America. Separate overview documents with more detailed information about the initiative and the HPQ can be found at the URL: http://www.hcp.med.harvard.edu/hpq/.