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Involuntary Health Plan Switching: Case Study of a Corporate Health Benefits Program

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This study examined the extent of health plan switching in one large corporation due to changes in employment, compared it with the extent of voluntary switching among continuously employed individuals, and evaluated the risk mix of health plan stayers, voluntary switchers, and involuntary switchers. Of 14,791 workers enrolled in the firm's fee-for-service plan in 1987, only 5,320 remained in 1990. Of the 11,494 employees enrolled in the large health maintenance organization (HMO) and the 7,677 enrolled in the small HMOs in 1987, only 5,299 and 3,026, respectively, remained in their HMOs and insured by the firm in 1990. These large enrollment losses were offset by large enrollment gains from new employees. Health plan leavers were at a lower risk of using medical services than were health plan stayers. The lowest expected annual expenditures were among newly hired health plan joiners.

The managed competition approach to health care reform relies on consumer choice and plan switching to motivate efficient performance by health maintenance organizations (HMOs) and other integrated delivery systems (Enthoven and Kronick 1989; Ellwood, Enthoven, and Etheredge 1992; Starr 1992). A fundamental assumption is that choice and switching are voluntary, based on the patient's comparison of premiums, quality, convenience, and

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other plan features. When health insurance coverage is provided as a fringe benefit of employment, however, the range of health plan options is determined by the employer rather than the employee. Individuals who leave their jobs may be required to switch health plans, which, in turn, may require them to switch physicians. Analogous switching sometimes occurs when an employee changes marital status, thereby gaining or losing coverage as a dependent, or when the employee's spouse changes jobs. These forms of health plan switching are involuntary in the sense that they are by-products of employment or marital decisions rather than due to comparison of price and quality among health plans.

Employment-related changes of health plan are likely to grow in importance because the link between particular firms and particular workers is becoming increasingly transient. Average job tenure is declining, as employment shifts to smaller firms, which are themselves unstable and can offer few inducements for job stability, and as large firms emphasize part-time, temporary, and contract employment to decrease their vulnerability to international competition and shifts in consumer demand. Changes in employment need not precipitate changes in health plan for a particular worker if both former and future employers offer the same health plan choices. Increasingly, however, firms are paring down the number of health plans they offer so as to achieve better prices and performance through volume purchasing (Robinson in press). This trend toward closer interdependence between employment and health plan is offset in contexts in which health plans are merging and in contexts in which employers are developing purchasing alliances that offer the same set of plan options to employees of multiple firms.

Surveys of individual consumers reveal considerable anxiety concerning the implications of job changes for health insurance coverage (Eckholm 1993). Economic studies suggest that concern for continued coverage may reduce worker quits, sometimes referred to as *job lock* (Madrian 1994; Gruber and Madrian 1993). A substantial research literature has examined plan switching by continuously employed individuals and the effect of this switching on risk selection among plans (Luft and Miller 1988; Hellinger 1987; Wilensky and Rossiter 1986). This voluntary switching typically involves only a small fraction of continuously employed persons each year and may be dwarfed by involuntary switching based on changes in employment. Little attention has been devoted to the implications of employment-related switching for health plans, physicians, and other health care providers.

We examined voluntary and involuntary plan switching during the period 1987-1990 by employees of a firm that offers a choice of a large group-model HMO, several smaller network and independent-practice HMOs, one fee-for-service plan, and an option to avoid payroll deductions by remaining

without health insurance. Key outcome variables include changes in enrollment among plans and changes in risk selection—that is, each plan's relative mix of high-cost and low-cost patients. Changes in enrollment and risk mix are measured for employees who remain with their health plans, those who retain employment-based coverage but switch plans, those who retain employment but gain or lose insurance coverage, and those who gain or lose employment. For individuals continuously employed with the firm, we examine actual changes in health plan enrollment over time. For individuals who gain or lose insurance coverage by gaining or losing employment with the firm, however, we measure only potential changes in health plan enrollment. Some of those who join or leave this firm retain their existing health plan via insurance coverage in another firm.

NEW CONTRIBUTION

The scientific literature and policy discussions of consumer choice and managed competition in health care have focused on health plan choices made by continuously employed individuals. This case study is the first quantitative comparison of health plan switching among continuously employed individuals and health plan switching due to changes in employment (e.g., quits, layoffs, new hiring). Changes in health plan due to changes in employment dwarf changes among the continuously employed and suggest that the policy debate needs to be refocused. Changes on both the purchasing and the provider side of the health insurance market are needed to reduce the magnitude of involuntary health plan switching.

DATA AND METHODS

DATA ON PLAN ENROLLMENT AND SWITCHING

We obtained the personnel files covering the period 1987-1990 from a large corporation based in California. This firm is focused on the financial services industry and employs large numbers of clerical, professional, and administrative personnel but relatively few blue-collar workers. The company is not unionized. During the period analyzed here, the firm was gradually downsizing its workforce through outsourcing and productivity gains, with a 24 percent reduction in benefit-eligible employees in California between 1987 and 1990. Consistent with many service-sector firms, this corporation experiences considerable annual turnover through quits and accessions, with a 17 to 23 percent annual rate of separations (quits, layoffs, and discharges) and an 8 to 17 percent annual rate of accessions (new hires) during this period.

For each employee, we ascertained health plan enrollment, if any, number covered (employee only, employee plus spouse, employee plus two or more dependents), age, gender, marital status, employment tenure, salary, and ZIP code of residence. The personnel data refer to the employee's status on December 31 of each year; they record both the employee's health plan for the year just ending and the employee's health plan choice for the coming year. Enrollment status was ascertained for 1987, 1988, 1989, and 1990. For employees gaining or losing health insurance coverage during the year, we obtained the date of the eligibility change. Some temporary and part-time employees are not eligible for health insurance coverage through the firm and are excluded from the analysis. For employees joining or leaving the firm during the year, we obtained the date of the employment change.

For each employee in each year, we assigned one of four health plan categories: the fee-for-service plan, the Kaiser Foundation Health Plan, other HMO, or no health plan. Kaiser enrollees were analyzed separately from the other HMO enrollees because of the exclusive relationship between the Kaiser-Permanente physicians and the Kaiser health plan. Switching into or out of the Kaiser plan requires switching physicians. Switching among the other HMOs, in contrast, does not necessarily require switching physicians since many physicians contract with multiple (non-Kaiser) HMOs in California. Enrollments in the other HMOs were analyzed as a group. The firm requires all employees choosing health insurance coverage to pay a portion of the premium but permits employees to refuse coverage. A small minority of employees refuse coverage each year, frequently due to being covered by the health plan of a spouse. Employees also may gain or lose health insurance eligibility due to changes in job classification while remaining continuously employed by the firm. Although the data are assembled by the firm on December 31 of each year, they contain information on employment changes during the year. For example, the data for 1990 include the type of employment change (e.g., new hire, recall, quit, layoff) and data of employment change for the entire 1990 calendar year.

We calculated the number of employees enrolled in the fee-for-service plan, the Kaiser HMO, the other HMOs as a group, and no health plan in 1987, 1988, 1989, and 1990. We then created three sets of overlapping pairs of years, covering the years 1987-1988, 1988-1989, and 1989-1990, to examine the dynamics of plan staying, voluntary switching, and potential switching due to changes in employment. For each of the three pairs of years, we calculated the number of employees who stayed with one health plan for both years, the number who switched from one health plan to another while maintaining insurance coverage through the firm, the number who joined a health plan after previously being employed but enrolled in no plan, the number newly

hired by the firm, the number who left a health plan and chose to enroll in no plan while remaining employed by the firm, and the number who left employment with the firm.

We developed transition matrices that indicate the health plan chosen by each employee in the previous year and the plan chosen for the coming year. The transition matrices have the health plan of origin on the vertical axis and the health plan of destination on the horizontal axis. Individuals falling within the diagonal cells of the matrix are those remaining with the same health plan for the two consecutive years. Individuals falling within the off-diagonal cells are switching among plans or changing coverage status altogether. The matrices have five rows and columns, corresponding to the fee-for-service plan, Kaiser HMO, other HMO, employed but with no health plan, or not employed with the firm. The numbers in the transition matrices indicate how many employees made each of the 25 possible health plan transitions.

DATA ON MEDICAL EXPENDITURES AND RISK SELECTION

We used a statistical method to predict expenditures for each employee and his or her covered dependents, using medical care claims data and employee personnel data. Once aggregated to the level of the health plan, these predicted expenditures constitute our measure of risk selection among plans. We also use these predicted expenditure figures to compare risk among plan stayers, switchers, joiners, and leavers. When comparing risk among health plans or groups of employees, it is important to use predicted rather than actual expenditures. Actual expenditures are influenced by differences among plans in benefits and efficiency as well as by differences among enrollees in health status and propensity to use services. Predicted expenditures are influenced solely by health status and propensity to use services. They measure how much the employees and dependents enrolled in all the various health plans would have spent, had they been enrolled in the same health plan.

Comprehensive medical care claims were obtained for employees and dependents in 1989 from the administrator of the firm's self-insured fee-for-service plan. These claims were aggregated for each employee, and the allowed charges for all claims were summed to obtain a measure of annual medical care expenditures. Claims incurred by dependents were ascribed to the covered employee, and hence the unit of analysis is the subscriber unit rather than the employee. We did not include disallowed charges, which the fee-for-service plan refused to pay because they concerned procedures not covered by the benefit package or fees in excess of the plan's acceptable rates. Annual expenditures were linked to the 1989 personnel files for enrollees in the fee-for-service plan.

The linked personnel and claims data were used to develop a statistical model predicting medical care expenditures based on personnel characteristics for the employee (age, sex, marital status, number of covered dependents, employment tenure, salary, ZIP code area of residence). We used the four-equation model developed as part of the RAND health insurance experiment (Duan et al. 1982). Separate equations were estimated for the probability of any medical care utilization, the probability of inpatient utilization, expenditures if only outpatient services were used, and expenditures if both inpatient and outpatient services were used. Both full-year and part-year (new hires, quits) employees in 1989 were used in the regression equations, which included a variable measuring number of months covered in 1989 (e.g., 1 through 12). The predicted probabilities and expenditures from the four equations were then combined to create a single measure of predicted expenditures for each employee. Predicted expenditures for the employee include predicted expenditures for any covered dependents. To evaluate the validity of the model, we compared actual and predicted expenditures for the 1989 fee-for-service plan enrollees. They differed by less than 1 percent. The attractive statistical properties of this maximum likelihood model have been analyzed in detail by the RAND researchers and evaluated by us using other data (Duan et al. 1982; Robinson et al. 1991).

The parameters from the four equations were then applied to the personnel files for enrollees in Kaiser, the other HMOs, and those enrolled in no health plan, generating a measure of predicted expenditures for these employees as well. This indicates the expenditures these employees would have incurred had they been enrolled in the fee-for-service plan rather than in an HMO or in no plan. It eliminates the differences in actual expenditures due to utilization review, covered benefits, and other characteristics of the plans themselves. We computed the mean predicted expenditures for employees in each of the health plans and in each cell of the transition matrices, plus the corresponding 95 percent confidence intervals.

RESULTS

HEALTH PLAN SWITCHING

Table 1 presents the number of employees enrolled in the fee-for-service plan, in Kaiser, and in one of the other HMOs and those not enrolled in any health plan during the 1987-1990 period. This was a period of retrenchment for the firm, with an overall 24 percent decline in covered employment, from 35,344 in 1987 to 26,911 in 1990. All the four health coverage options suffered

TABLE 1 Health Plan Enrollment for Employees of One Large Firm, 1987-1990

	1987	1988	1989	1990
Fee-for-service plan	14,791 (41.8)	13,580 (38.5)	10,965 (34.7)	8,266 (30.7)
Kaiser HMO	11,494 (32.5)	12,004 (34.1)	11,423 (36.1)	10,432 (38.8)
Other HMOs	7,677 (21.7)	8,278 (23.5)	7,908 (25.0)	7,049 (26.2)
No health coverage	1,382 (3.9)	1,379 (3.9)	1,310 (4.1)	1,164 (4.3)
Total eligible	35,344 (100.0)	35,241 (100.0)	31,606 (100.0)	26,911 (100.0)

Note: Column percentages are in parentheses. HMO = health maintenance organization.

enrollment declines, but the effect was far greater for the fee-for-service plan (44 percent decline) than for Kaiser and the other HMOs (8 to 9 percent decline). Enrollment in the Kaiser HMO rose from 33 percent of all covered employees in 1987 to 39 percent in 1990, while enrollment in the other HMOs collectively rose from 22 percent to 26 percent, respectively. Enrollment in the firm's self-insured fee-for-service plan fell from 42 percent to 31 percent in 1990.

Table 2 displays the numbers of employees staying with their health plans, switching health plans, changing coverage status, or changing employment status over three overlapping pairs of years. In each pair of years, approximately three fifths of employees remain employed, eligible for health insurance coverage, and enrolled in the same plan. However, significant minorities of workers change health plan for any of three reasons. A small number retain employment and coverage but switch within the approved set of health plan options. These are the employees normally referenced in policy discussions of consumer choice among competing health plans, and they are referred to in this article as voluntary switchers since they make health plan choices independently of employment choices. They account for 3 to 5 percent of all employees involved in the firm's health insurance system during these years.

In contrast with the modest number of voluntary plan switchers, large numbers of workers potentially join or leave health plans because they gain or lose employment with the firm. These joiners and leavers are typically excluded from discussions of consumer choice among competing health plans. They are referred to in this article as involuntary plan switchers since their choice of health plan is the result of more basic choices of whether and where to work. The choice of employment itself may be voluntary or involuntary

TABLE 2 Number of Employees Staying with Health Plan, Switching Plans, Changing Coverage Status, and Changing Employment, 1987-1990

	1987-1988	1988-1989	1989-1990
Retain employment and coverage			
Stay in health plan	25,166 (59.5)	25,002 (65.3)	20,758 (59.1)
Switch health plan	1,420 (3.3)	1,949 (5.1)	1,369 (3.9)
Change coverage, retain employment			
Obtain coverage	1,310 (3.1)	1,332 (3.5)	1,115 (3.2)
Lose/drop coverage	359 (0.8)	274 (0.7)	164 (0.5)
Change employment			
Obtain employment	6,986 (16.5)	3,049 (8.0)	3,505 (10.0)
Lose/drop employment	7,089 (16.7)	6,684 (17.5)	8,200 (23.3)
All employees	42,330 (100.0)	38,290 (100.0)	35,111 (100.0)

Note: Column percentages are in parentheses.

from the point of view of the employee: leavers include those who quit, those who are discharged or laid off, and those who switch from eligible to ineligible status for insurance coverage while remaining employed by the firm. During these 3 years, the number of leavers amounted to 17 percent, 18 percent, and 23 percent, respectively, of the total number of covered employees. There was also a modest number of workers who voluntarily rejected coverage (often due to spousal coverage through another employer).

Health plan joiners include only those job applicants who are successful in actually obtaining employment, not those who desire to work and to be covered but who are rejected by the firm. Consistent with many other large American corporations during this period, the firm studied here was reducing employment by maintaining a high level of separations and restricting the number of new hires. There was a 50 percent decline in the volume of hiring during this 3-year period. The number of workers newly enrolling in health plans due to new employment with the firm amounted to 17 percent, 8 percent, and 10 percent, respectively, of the total number of covered employees during these years. A modest number of additional workers joined one of

TABLE 3 Changes in Health Plan Enrollment, Health Insurance Coverage, and Employment Status in One Large Private Firm, 1989-1990

<i>Enrollment, Insurance, and Employment Status, 1990</i>	<i>Enrollment, Insurance, and Employment Status, 1989</i>					<i>Total 1989</i>
	<i>Fee-for- Service Plan</i>	<i>Kaiser HMO</i>	<i>Other HMO</i>	<i>Not Covered</i>	<i>Not Employed</i>	
Fee-for-service plan	7,137	215	390	48	3,175	10,965
Kaiser HMO	53	8,228	190	68	2,884	11,423
Other HMO	202	319	5,393	48	1,946	7,908
Not covered	271	495	349	0	195	1,310
Not employed	603	1,175	727	1,000	0	3,505
Total 1990	8,266	10,432	7,049	1,164	8,200	35,111

Note: HMO = health maintenance organization.

the three health plan options after previously being employed but covered by no health plan.

Table 3 presents the transition matrix for 1989-1990, indicating the number of employees who made each of the 25 possible transitions among health plans, insurance coverage, and employment with the firm. Reading horizontally along the rows permits insights into where each of the workers enrolled in each plan in 1989 went in 1990. For example, 7,137 of the 10,965 fee-for-service plan enrollees (65 percent) stayed with their plan, while 8,228 of 11,423 Kaiser enrollees (72 percent) stayed in Kaiser. The figure for other HMOs (65 percent) overestimates the degree of plan staying, since it conceals switching within the set of non-Kaiser HMOs. Given the considerable overlap between the physician panels for these network and independent-practice HMOs, however, there is relatively little incentive for employees to switch among them. There were only modest differences among the three types of health plans in the percentage who voluntarily switched out to another plan for 1990 while remaining employed by the firm: 5.5 percent switched out of the fee-for-service plan, 2.1 percent switched out of Kaiser, and 6.6 percent switched out of the other HMOs. Much more substantial losses potentially were suffered by these three sets of health plans due to employment terminations: the fee-for-service plan lost 3,175 enrollees (29 percent), Kaiser lost 2,884 (25 percent), and the other HMOs collectively lost 1,946 (25 percent) of their 1989 enrollment due to employment changes. Overall, six times as many workers potentially switched health plans involuntarily than switched voluntarily.

Reading vertically down the columns of Table 3 permits insights as to the origin of the enrollees in each of the three sets of health plans in 1990. The 7,137

TABLE 4 Predicted Medical Expenditures per Employee and Dependents per Year, by Health Plan and Insurance Coverage Status, 1987-1990

	1987	1988	1989	1990
Fee-for-service plan	\$2,781	\$2,762	\$2,741	\$2,761
Kaiser HMO	\$2,688	\$2,688	\$2,705	\$2,690
Other HMOs	\$2,555	\$2,587	\$2,604	\$2,605
No health coverage	\$2,519	\$2,454	\$2,519	\$2,460
Total eligible	\$2,691	\$2,683	\$2,684	\$2,679

Note: HMO = health maintenance organization.

stayers account for 86 percent of the fee-for-service plan's 1990 enrollment of 8,266. Similarly, stayers account for 79 percent of the 10,432 Kaiser HMO enrollees and 77 percent of the 7,049 other HMO enrollees in 1990. These three sets of plans received 3 percent, 5 percent, and 8 percent, respectively, of their enrollees in 1990 due to voluntary switching. They received 7 percent, 11 percent, and 10 percent, respectively, of their enrollees in 1990 from newly hired employees.

PATIENT RISK SELECTION AMONG HEALTH PLANS

Table 4 presents mean predicted expenditures per year over the 1987-1990 period for employees and dependents enrolled in each of the three health plan types and for those not covered by any plan. The fee-for-service plan had an enrollee mix with a slightly higher risk than the total population of employees, while Kaiser received a enrollee mix comparable to the entire population and the other HMOs as a group benefited from favorable selection. Employees covered by no health plan are consistently the lowest risk group in this population.

There are no trends over time in Table 4 for risk mix within any particular health plan. This does not imply, however, that there are no significant differences in predicted expenditures among the various subgroups within each enrollee group—that is, stayers, switchers, leavers, and joiners. As indicated in Table 5, stayers are consistently the highest risk subgroup among each health plan's enrollees. Mean predicted expenditures for stayers are 5 to 9 percent higher than for voluntary switchers, 4 to 13 percent higher than for potential plan leavers who lose or quit their jobs, and 16 to 30 percent higher than for plan joiners who are newly hired by the firm.

Table 6 presents detailed risk figures for stayers, switchers, leavers, and joiners for each of the three health plans in 1989-1990. Reading horizontally

TABLE 5 Predicted Medical Expenditures per Employee and Dependents per Year for Health Plan Stayers, Switchers, Joiners, and Leavers, 1987-1990

	1987-1988	1988-1989	1989-1990
Retain employment and coverage			
Stay in health plan	\$2,731	\$2,723	\$2,783
Switch health plan	\$2,607	\$2,605	\$2,564
Change coverage, retain employment			
Obtain coverage	\$2,511	\$2,442	\$2,585
Lose/drop coverage	\$2,498	\$2,599	\$2,716
Change employment			
Obtain employment	\$2,358	\$2,183	\$2,140
Lose/drop employment	\$2,608	\$2,611	\$2,469
All employees	\$2,636	\$2,644	\$2,630

TABLE 6 Risk Selection by Health Plan and Employment Status, 1989-1990: Predicted Expenditures per Employee and Dependents per Year

Enrollment, Insurance, and Employment Status, 1989	Enrollment, Insurance, and Employment Status, 1990					Total 1989
	Fee-for- Service Plan	Kaiser HMO	Other HMO	Not Covered	Not Employed	
Fee-for-service plan	\$2,830	\$2,572	\$2,619	\$2,666	\$2,567	\$2,741
Kaiser HMO	\$2,779	\$2,794	\$2,580	\$2,968	\$2,449	\$2,704
Other HMO	\$2,390	\$2,555	\$2,703	\$2,408	\$2,366	\$2,604
Not covered	\$2,607	\$2,569	\$2,590	NA	\$2,143	\$2,519
Not employed	\$2,141	\$2,066	\$1,884	\$2,418	NA	\$2,142
Total 1990	\$2,761	\$2,689	\$2,605	\$2,460	\$2,468	NA

Note: HMO = health maintenance organization; NA = not applicable.

along the rows of the table, one can disaggregate the average risk for a health plan in 1989 into the risk attributable to those who will remain, those who will switch to a competing plan, those who will drop coverage, and those who will leave the firm altogether. Reading vertically down the columns, one can disaggregate the average risk for a plan in 1990 into that attributable to stayers, to those switching in from a competing plan, to those electing coverage, and to those joining after being newly hired by the firm.

For each of the three health plans, the average risk for plan stayers is higher than for switchers, joiners, and leavers. For example, the average risk for

fee-for-service plan enrollees who leave employment in 1990 was 9 percent lower than for fee-for-service plan stayers. Job leavers were 12 percent lower risk than stayers for Kaiser and 13 percent lower risk than stayers for the other HMOs. Average risk levels for the other categories of leavers (those switching to competing health plans and those dropping insurance eligibility) were also lower than for stayers in all plans in 1989. These findings are consistent with the literature on voluntary health plan switching, which reports lower risk among switchers than among stayers (Luft and Miller 1988; Hellinger 1987; Wilensky and Rossiter 1986; Duan et al. 1982).

By themselves, these figures imply that the risk mix of each plan is worsening over time, often quite dramatically. However, the average risk of newly joined enrollees and their dependents was also substantially lower than the risk for plan stayers, indicating that the plans were constantly being replenished with a fresh supply of relatively healthy enrollees and dependents. In 1990, the average risk for newly hired plan joiners was 24 percent lower than for stayers in the fee-for-service plan. Newly hired Kaiser enrollees were 26 percent lower risk than Kaiser stayers, and newly hired employees choosing other HMOs were 30 percent lower risk than employees continuously enrolled in those other HMOs. The relative stability in health plan risk over the 1987-1990 period, documented in Table 5, is thus the net effect of very large flows of low-risk individuals both in and out of health plans. In other industries, major firms have faced severe problems, as the need to reduce employment has resulted in layoffs for junior and low-risk employees, the retention of senior and high-risk employees, and no compensating hiring of new low-risk employees.

CONCLUSION

Public policy debates over the linkage between employment and health insurance have focused on the effects on individuals. Many citizens fear losing their health insurance because of job loss. A significant number report that concern over health coverage influences their employment decisions. Economists are concerned lest employment-based health insurance cause job lock, keeping workers in positions in which their skills are less needed and reducing the labor mobility important to a dynamic economy. The implications of the employment-insurance linkage also are potentially important for the health plans themselves, however. Job changes can generate important changes in health plan enrollment. Moreover, this employment-related plan switching can alter the mix of high- and low-risk enrollees in each plan, since leavers and joiners differ from stayers in their propensity to use medical care services.

This article has reported the results of a study that focused on the implications of the employment-insurance linkage for enrollment and risk selection in the fee-for-service and HMO plans offered by a large private employer. We found that switching due to changes in employment potentially caused very large movements into and out of the competing health plans. The fee-for-service plan lost 19 to 29 percent of its enrollees annually due to employment-related switching. The HMOs lost 19 to 25 percent annually for analogous reasons. Each year, 6 to 19 percent of enrollees in these plans were new members joining due to changes in employment. Our data do not permit analysis of how many of the individuals who gained or lost insurance coverage through this firm actually switched health plans in consequence; this depends on the health plan offerings, if any, of their other employers. However, most small employers do not offer a wide range of health plan choices, if they offer insurance coverage at all. Many large firms are paring down their offerings. There is, therefore, a strong likelihood that a change in employment will precipitate a change in health plan.

Employment-related changes in health plan enrollment potentially pose a serious threat to the managed competition strategy for health care reform. The core of that theory is that pressure to maintain and expand enrollment will motivate health plans to continuously improve the efficiency, quality, and accessibility of their services. However, the large enrollment shifts documented in this study are not responses to these sorts of plan characteristics but, rather, to changes in the employment of the worker or of the worker's spouse. An important offsetting factor stems from the health plans' need to compete for the enrollment of newly hired employees. To the extent new hires are similar to those quitting or being laid off, this competition for new enrollment will be equivalent to competition in contexts in which health insurance is not dependent on employment. However, to the extent job gainers differ from job leavers, as found in this study, health care competition in employment-based settings will focus on the preferences of younger and healthier new hires rather than the older and sicker employees who leave their jobs.

Employment changes potentially undermine the health plans' motivation to perform preventive medical care services, the clinical and economic value of which is not realized for many years, because the plans do not retain enrollees long enough for the benefits to outweigh the costs. Of the 14,791 workers enrolled in the firm's fee-for-service plan in 1987, for example, only 5,320 were still enrolled in 1990. Only 5,299 of the original 11,494 enrollees in Kaiser and 3,026 of the original 7,677 enrollees in the other HMOs were still enrolled in 1990 through the firm's health insurance system. Some of these people remained enrolled in the same plan if they obtained employment from

another firm that also contracts with that plan. Job and insurance changes do not alter the patient's (as distinct from provider's) interest in using preventive services. To the extent use of their service is responsive to consumer demand, it will not be affected by the employment-insurance link.

There are some advantages to the retention of employment-based health insurance as a control on health care cost inflation. Large firms are more sophisticated purchasers of health insurance than are individual consumers and are less constrained by bureaucratic rules than are governmental agencies (Robinson in press). Long-term contractual relationships between large firms and large health plans can potentially provide a more effective means for adjusting to constant changes in health care economics than would be available under a system that relied exclusively on individual consumer purchasing (tax-incentive approaches) or exclusively on governmental regulation (single-payor approaches).

Against this advantage for employment-based insurance, however, must be weighed the evidence presented here of involuntary health plan switching caused by quits, layoffs, eligibility changes, and new hiring. A dynamic economy requires frequent job changes in response to changes in consumer demand, international competition, and technological innovation. The link between individual American workers and individual American firms is likely to become increasingly transient. Even the current degree of employment mobility in the U.S. economy is seriously underrepresented by the results presented here because these data were obtained from an exceptionally large and well-paying firm. Small firms and those in more cyclically sensitive industries experience much higher rates of employee turnover. These considerations argue for a separation of choice of insurance from choice of employment. This could be achieved through the pooling of employers into purchasing trusts, which offer a wide range of health plans on similar terms to employees in all member firms. Consolidation of health plans through local mergers will also increase the likelihood that most employers will offer the same set of health plan options.

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