

## Sickness absence: An introduction

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Sickness absence varies substantially among countries, even among countries that otherwise have much in common. A comparison between the Nordic countries reveals striking differences. Data from recent years' labor force surveys show that about 4 percent of the employees in Norway and Sweden have reported sickness absence exceeding one week. The sickness absence rate in Denmark has been around 1.5 percent during the same period, and the Finnish rate has been slightly above 2 percent. Whereas absence rates in Denmark and Finland have been relatively stable over the past 15 years or so, both Norway and Sweden have experienced quite substantial changes.<sup>1</sup> The steep rise of Swedish sickness absence in recent years has brought absenteeism to the fore of the country's political debate.

Although country differences in sickness absence evade simple explanations, they do suggest that institutions and incentives matter. Exactly how they matter is not well understood, however. There are several decision-makers involved, including the individual worker, the employer, the medical doctor and the sickness insurance agency. Existing sickness insurance systems vary along a variety of dimensions, such as length of waiting period (if any) before compensation is paid out, statutory replacement rates, caps on benefits levels, time limits in benefit receipt, requirements concerning medical certification, the extent of employer-provided sick-pay, the prevalence of collective agreements on sickness benefits, and the treatment of unemployed individuals. Sickness benefits for employees often replace a (very) high fraction of income, sometimes 100 percent if supplementary negotiated benefits are included. Sickness benefits available for unemployed persons are typically lower, often coinciding with the benefit levels provided by the unemployment insurance.

Some of the rules in sickness insurance schemes are intended to mitigate moral hazard problems. Rules concerning medical certifica-

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<sup>1</sup> See Nyman et al. (2002).

tion as well as monitoring by employers and/or insurance providers are obvious ways to prevent excessive use of sickness insurance when replacement rates are high. However, since sickness to a large extent is private information to the individual worker, there is little doubt that the individual has considerable influence over his or her absence decision. Indeed, there is a growing amount of evidence that economic incentives matter for sickness absence.

This issue of *Swedish Economic Policy Review* presents results from recent research on sickness absence, its causes and alternative policy options. The papers were presented at a one-day conference, organized by the Economic Council of Sweden, on October 20, 2003.

In the first paper, *Mahmood Arai* and *Peter Skogman Thoursie* examine how worker and establishment characteristics affect sickness absence in Sweden. To that end, they use data with information on firms (establishments) as well as workers. In particular, they focus on the relative importance of worker and establishment effects, arguing that such knowledge is important for policy makers contemplating measures affecting workers or firms. If the main variations in sickness absence are due to differences among firms rather than workers, policies should presumably focus on employers' incentives.

The data set used by the authors includes over 200 000 workers employed in some 300 establishments. The objective of the analysis is to explain sickness absence during 1991, where absence is measured as the number of days of sickness during that year. There is no information on the number of sickness spells per worker. The descriptive analysis reveals that there is substantial variation in sickness absence across workers, industries and counties. There is also considerable establishment variation in sickness absence rates. The statistical analysis confirms these observations. When a large set of worker and establishment characteristics are included, there is still substantial across-establishment variation in sickness absence. A large part of this variation remains within industries.

The authors conclude by arguing that their results indicate that policy should aim at both individual workers and their employers.

The second paper, written by *Göran Broström*, *Per Johansson* and *Mårten Palme*, is more directly concerned with how economic incentives influence sickness absence. The authors make use of individual data on Swedish blue-collar workers during 1990 and 1991. They also ask to what extent gender differences in work absence can be explained by economic incentives. A noteworthy feature of the analysis

is that the period of analysis includes a major reform of sickness insurance involving substantial cuts in replacement rates.

The results show that economic incentives, represented by a measure of the cost to the worker of being absent from work, have significant negative effects on the incidence of absence (i.e., on the probability of entering sickness absence). This holds for both men and women. However, the effect of incentives on the duration of absence is much weaker. The authors use their estimated models to shed light on gender differences in sickness absence. It has become a stylized fact that women have higher sickness absence rates than men and this pattern is also visible in the data analyzed in this paper. The fact that women have higher absence rates can (at least in these data) be attributed to more frequent, rather than longer, spells of absence. The paper calculates that about one third of the gender difference can be accounted for by economic incentives, i.e., the cost of being absent. Most of the difference in absence is due to gender differences in unobserved characteristics.

The authors also include a number of health indicators and find, as expected, that health status matters for sickness absence. The results concerning the effects of working conditions are mixed, although there is evidence that some adverse work environment variables do increase work absence.

The paper by *Tim Barmby, Marco Ercolani and John Treble* analyzes sickness absence in the United Kingdom by using individual data from the labor force surveys. Over the period since 1984, there is virtually no trend in the average UK sickness absence rate; it has hovered just above 3 percent with negligible fluctuations. This stability is remarkable, considering the substantial fluctuations that are visible in Swedish sickness absence rates over the same period.

Sick pay in the UK is almost entirely provided by employers, subject only to a minimum flat benefit level set by the government. This minimum level is very low, amounting to 43 percent of the national minimum wage. There appears to be little information on the extent of sick pay provision by firms.

The authors use their data source to examine how various worker, firm and labor market characteristics influence sickness absence rates. It is noteworthy that regional labor market conditions do not appear to have any impact on absence. The authors emphasize the effects of contractual arrangements. For example, absence is higher among workers whose usual contracted work hours are higher than average.

Overtime is associated with lower absence rates and so are higher wages.

*Andrea Ichino and Regina Riphahn* ask in their paper whether absenteeism is related to employment protection. The general idea is that absence behavior affects the risk of being fired: the higher the absence rate, the higher the risk of being fired. If workers recognize this link, they should be less prone to absenteeism during probationary employment and more prone to absenteeism when they have received full employment protection.

The authors test the conjecture on three different data sets. The first case study looks at public-sector workers in Germany, the other two cases involve Italian data. The study on Germany exploits the fact that public-sector employees that have reached the age of 40 and have at least 15 years of tenure can only be fired in case of severe personal misconduct. The analysis finds that those workers indeed have higher absence rates than workers in private and public sectors that do not enjoy a similar degree of employment protection. The results for Italy also confirm the authors' conjecture. The third study is particularly noteworthy as it involves multiple observations on identical individuals as they pass from probation to full employment protection. Absenteeism is found to increase as soon as protection is granted.

Needless to say, the findings of the paper cannot be used without qualifications for conclusions about the desirability of employment protection. However, the findings do suggest that absence behavior is one factor to consider when designing employment protection legislation.

The paper by *Philip de Jong* and *Maarten Lindeboom* provides evidence from the Netherlands, a country where sickness insurance has been privatized. Workers are protected by sickness insurance involving generous replacement rates (in most cases 100 percent of the net earnings) but the new legislation makes the employers responsible for the financing of the sick pay. The idea behind the reform was to give firms strong incentives to reduce absenteeism by confronting them with the full costs of absence.

The Dutch reform was introduced nationwide at one point in time, a feature that makes evaluations difficult. The authors suggest that the evolution of absence rates after the reform is nevertheless consistent with the hypotheses that the reform caused a decline in absenteeism. Somewhat surprisingly, there is so far no evidence that the firms' selection of workers on the basis of health risks has increased because

of the privatization. In 1990 as well as in 1999, about one third of the firms reported that they checked applicants carefully on the basis of health conditions.

Although firms are made responsible for the financing of sickness benefits, they can mitigate risk taking by operating in the insurance market. In fact, about 80 percent of all firms took out some form of insurance to cover their sickness liabilities. As should be expected, the extent of reinsurance varies by firm size: the smaller the firm, the more likely it is to choose to reinsure its sick liability with an insurance company. It is possible that reinsurance leads to moral hazard problems, since the insured firms transfer some of the absence risk to the insurance companies. The paper examines this possibility and finds no support for it: the impact of the firm's choice of insurance status has no significant effect on the sickness absence rate.

The final paper in this issue is written by *Laura Larsson* and is concerned with the interactions between sickness and unemployment insurance. The paper focuses on Sweden and, in particular, on the caps on benefit levels that prevail in both insurance systems. These caps imply that the effective replacement rates are lower for workers with above-average earnings. In Sweden, the cap has been higher in sickness insurance than in unemployment insurance, thereby creating incentives for benefit arbitrage; for some unemployed individuals it has been economically advantageous to report sick and substitute sickness benefits for unemployment benefits. The paper presents evidence that such mechanisms have been operating in Sweden and estimates the extent of excess sickness reporting due to different benefit caps.

The paper also includes a discussion of the pros and cons of harmonizing benefits in sickness and unemployment insurance. In general, the argument for different benefit levels hinges on whether or not the moral hazard problems are fundamentally different in the two systems. This may or may not be the case but it is difficult, according to the paper, to find convincing arguments for a system where statutory replacement rates are equalized but the caps on benefit levels differ between the systems. All in all, the paper argues, some harmonization of benefits in sickness and unemployment insurance is motivated.

In conclusion, the papers in this issue of the journal have provided new evidence on the determinants of sickness absence. There is by now a fair amount of evidence that incentives matter for sickness absence. There is clearly more to sickness absence than individual health

problems. However, it is also clear that narrow economic incentives are not all that matters. Some countries manage to achieve low rates of absenteeism despite very generous benefit schemes, including 100 percent replacement rates. The rules governing medical certification of sickness and the monitoring of absence behavior are bound to be important, although the empirical knowledge in this area appears to be rather limited. There is also a presumption that social norms pertaining to sickness absence can be important, perhaps slowly responding to the overall degree of absenteeism.

An optimal policy in the area of sickness absence and sickness insurance would almost certainly not attempt to minimize absenteeism. In the Swedish case, however, one can reasonably conjecture that an optimal policy would entail lower absence rates. There is no lack of policy instruments, although there is a lack of knowledge about the precise effects of different policies. However, such ignorance has not restricted policy makers in the past and need not restrict them at present. We have a fairly good sense of how incentives can be designed so as to influence workers, firms, doctors and sickness insurance authorities. As usual, it is probably best to make use of several instruments; single-instrument strategies are rarely optimal policies.

### Reference

Nyman, K., Bergendorff, S. and Palmer, E. (2002), Den svenska sjukkan—sjukfrånvaron i åtta länder (Sickness in Sweden—sickness absence in eight countries), ESO Report Ds 2002:49, Ministry of Finance, Stockholm.

