

SICKNESS-RELATED ABSENTEEISM AND ECONOMIC INCENTIVES IN SWEDEN: A HISTORY OF REFORMS

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Since the 1980s, Sweden has had a much higher rate of absence due to sickness than most other countries (OECD Health Data 2002, Nyman et al. 2002, Barmby et al. 2002, Osterkamp 2002).¹ The number of people who have received sickness benefits at some time during 2002 was approximately 862,000 (i.e., almost 10 percent of the 9 million inhabitants of Sweden), having increased by 161,000 (or 18.68 percent) since 1999. This considerable increasing trend raised concerns related to the health of the working-age population, their work environment and job demands, but also about the size of the compensation and the source of payment (social insurance and/or the employer). This trend has also led to questions of whether generous insurance not only compensates for sickness and disability but also induces such outcomes. Consequently, one of the solutions of the Swedish government (and also the Netherlands and Germany) was to initiate changes in the sick payment schemes that reduce the economic compensation to be received during sick leaves. Thus, a general view exists that sickness absence is responsive to the individual cost of absence or economic incentives. Moreover, the government is collaborating with the unions and the employers in finding other solutions that can stop (and even reduce) the increasing trend of the sickness absenteeism. Even though some of them are based on the previous experiences, these new solutions are not linked explicitly to the lessons learned in almost 50 years of experience with the social insurance. It is the goal of this article to point out the changes and lessons learned from them, with special emphasis on economic incentives.

The institutional framework

Social insurance in Sweden is compulsory and publicly administrated, and aims at providing financial

security in case of sickness or disability, for families and children, and for the elderly, by reallocating funds over periods of time and between individuals in society. Every resident of Sweden is covered. Benefits are provided partly through replacement of lost income and partly through allowances. The social insurance sectors (sickness insurance, work injury insurance, the national basic pension, survivor's pension, partial pension, and parental insurance) are financed wholly or in part by revenue from social security charges that are collected from employers and from the self-employed, as well as from general and special pension charges.

The proportion of expenditure covered by these charges varies, and has changed over the years. Some social insurance benefits are financed wholly by central government funds, such as child allowance, housing allowance, and certain other allowances for families with children, as well as a number of benefits for the disabled (such as car allowance), and housing supplement for pensioners. Other benefits, such as attendance allowance, is today partly financed by the municipalities, whereas a number of smaller public insurance plans are financed by premiums and/or the yield from funds; among these are voluntary pensions, voluntary sickness insurance, voluntary occupational health insurance, and small business insurance.

Every resident in Sweden, whether they were born there, immigrated, or merely came to work or study, is registered with a social insurance office when they reach the age of 16. People are eligible for sickness compensation if they cannot work because they lose 25 percent or more from their working capacity. The National Insurance Act (1962:381), which monitors the social insurance benefits in Sweden, gives no general definition of sickness, but according to the National Social Insurance Board's recommendation, sickness is an abnormal physical or mental condition; if it reduces normal work capacity by at least 25 percent, the individual can qualify for compensation of earnings loss due to sickness. Normal work capacity is defined as either the ability to perform the same task, or the ability to earn the same income, as prior to sickness.

The compensation may be full, three-quarters, half or one-quarter, depending on the extent of absence from work. The size of the compensation is related to the previous earnings of the insured people.

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¹ The National Social Insurance Board and Statistics Sweden (SCB) are the sources of the data for Sweden for the entire paper except where other sources are mentioned.

They can also get a special parental allowance if they cannot go to work because their children are sick. If they have to stop working (temporarily or permanently) due to reduced working capacity, they are eligible to receive a disability pension.

Self-employed people are not covered by the system just described, and must pay a separate “premium” for their sickness insurance, together with their taxes. People who have no income or very low income can receive tax-free voluntary sickness allowance from the social insurance office. Normal sick pay and sickness benefit are taxable like regular income.

Repeated change of the rules

In 1955, compulsory sickness insurance was introduced in Sweden. The sickness benefit covered around 65% of the expected net earnings of the insured person, and it was reduced after the ninetieth sick day. In practice, the compensation level was higher due to the effects of the marginal tax and to the fact that the sickness benefit was tax-free. There was a waiting period of three days and a limit of two years replacement in long-term sickness. Since 1955, there have been many changes to the rules of sickness insurance (the most important are listed in the Box), which may be grouped with respect to the following aspects:

1) *The compensation level.* For example, in 1963, there was an increase of the daily replacement rate, i.e. the minimum amount of the daily cash benefit during sickness; in 1967, the replacement rate increased to approximately 80 percent of the expected net wage, and in 1974 it increased to 90 percent of the

Box

The main changes of rules regarding the compensation of income loss due to sickness in Sweden

- 1955: According to the 1955 Law, the sickness benefit would cover around 65 percent of the expected earnings of the insured person. In practice, the compensation level was higher due to the effects of the marginal tax and to the fact that the sickness benefit was tax-free.
- 1963: The National Insurance Act (allmän försäkring lag, AFL, 1962:381) substitutes the 1955 Law.
- 1967: The compensation level becomes 80 percent, and the money from sickness benefit is not taxed. A waiting day (karensdag) and the two so-called “free days” are introduced.
- 1974: The compensation level is 90 percent. The money from sickness benefits counts for the national supplementary pension scheme, ATP (allmän tilläggspension), but they are now taxed.
- July 1977: The Work Injuries Insurance Act (Lagen om arbetsskadeförsäkring, LAF 1976:380) covers 100 percent of the income loss due to work injury or poisoning.
- Nov. 1979: The sickness benefit is paid at maximum once per week.
- Jan. 1982: Participants in an active labor market program (AMU) must report their absence due to sickness to the social insurance office.
- Jan. 1985: A new system (Dagmar-systemet) of compensation is introduced from the social insurance of public health authority. It contains both public and private outpatient treatment. Additionally, the payment of the sickness benefit for the state employees is simplified, and the compensation is calculated based on a stereotyped model that it is applied by the state institutions for all spells less than 14 days.
- Jan. 1986: A pilot scheme of 1/4 and 3/4 compensation for sickness benefit and travel compensation (10 municipalities in 3 counties) is tested, which will be extended until July 1990. The Dagmar system now even applies for the compensation for hospital costs.
- 1987: Starting with December 1987, the waiting day was abolished, and a sickness cash benefit was provided from the day the sickness was reported to the social insurance office. However, a cash benefit was now only provided for scheduled workdays during the first fourteen days of absence.
- July 1990: Partial compensation of 3/4 and 1/4 is introduced in the whole country.
- Mar. 1991: The compensation rate from the sickness benefit is reduced from 90 percent to 65 percent for the first 3 days, 80 percent for day 4 to day 90. The collective agreement of 10 percent is maintained.
- 1992: The “employer period”, which requires the employers to pay for the first 14 days of sickness is introduced. Since January 1992 there has been a two-week employer period, except the time period. The compensation rate is increased 75 percent for the first 3 days of compensation and to 90 percent thereafter.
- April 1993 (a): A waiting day for sick pay and/or sickness benefit is reintroduced. The sickness benefit rate is reduced from 90 percent to 80 percent from day 90. A “5-day repeated-spell” rule is introduced, according to which if a sick person records a new case within a five day period, the new spell is seen as a continuation of the previous one regarding the waiting day, the compensation rate and the length of the sick pay. The compensation rate for rehabilitation is reduced from 100 percent to 95 percent.
- July 1993 (b): The sickness cash benefit rate is reduced from 80 percent to 70 percent from the 365 day of each sickness spell, but the compensation of 80 percent may be kept in certain cases, such as medical treatment.
- June 1996: The compensation level is 75 percent all over for both sickness cash benefit and rehabilitation cash benefit.
- Jan. 1997: The “employer period” is extended to the first 28 days (up to and including March 1998, when is reduced to the first 14 days).
- Jan. 1998: The payment level for full sickness benefit is 80 percent of the income qualifying for sickness allowance, for entire sickness period, excepting the waiting day.
- July 2003: The sick pay period increased from 14 to 21 days, and there is a compensation ceiling for the sick unemployed that cannot be higher than the highest unemployment benefit.

expected gross earnings. In 1974, a sickness cash benefit was made *taxable* and eligible for the calculation of the earnings-based, old-age pension. Since March 1991, the previous uniform rate of 90 percent has not been paid until the 91st day; only 65 percent was paid for the first three days, fol-

lowed by 80 percent through the 90th day. From 1 July 1993, the sickness cash benefit decreased from 80 percent to 70 percent after the 365th day of sickness, except in special cases (medical treatment).

2) *The covered period*, i.e., waiting days period and a maximum period. In 1963, the time limit for long-term sickness was abolished (except for old-age pensioners); in 1967, the waiting days were abolished except for the day of calling in sick, and in 1987, even this day was abolished; in 1993 a waiting day was reintroduced.

3) *Partial compensation*. Only 100 percent and 50 percent benefits were provided until 1 July 1990; since then 25 percent and 75 percent have also been available. These partial sickness benefits are received in connection with rehabilitation for persons returning to work after a long period of sickness.

4) *The source of funds*, i.e., social insurance and/or employer. Before 1 January 1992, all compensations for earnings lost during sickness were paid by the social insurance system, but since then, during the first days of a sickness period (called the sick pay period or the *employer period*), employees receive sick pay directly from their employer. From 1992 to 1996, the sick pay period was 14 days, then through March 1998, it was 28 days, and since then, it has once again been 14 days. Since July 2003, the employer period is 21 days.

Most of these rules influence the *economic incentives*. More exactly, the compensation level can affect the individual decision of going to work even if they do not feel good, or the individual decision of not going to work even though their health status and working capacity would allow them to work. Additionally, the compensation level and/or other institutional settings (such as the eligibility, the duration of entitlement for benefits, etc.), may affect the individual decision of choosing among various systems of the welfare system. Thus, the sickness absence is expected to be responsive to the individual cost of absence or economic incentives. Therefore, the effect of economic incentives on the sickness absenteeism can be analyzed from at least three perspectives, all of them having a direct or indirect effect on the individuals' health: 1) to what extent the institutional setting of the sickness insurance may allow for the insured employee to be affected by economic incentives; 2) to what extent the sickness insurance is a better

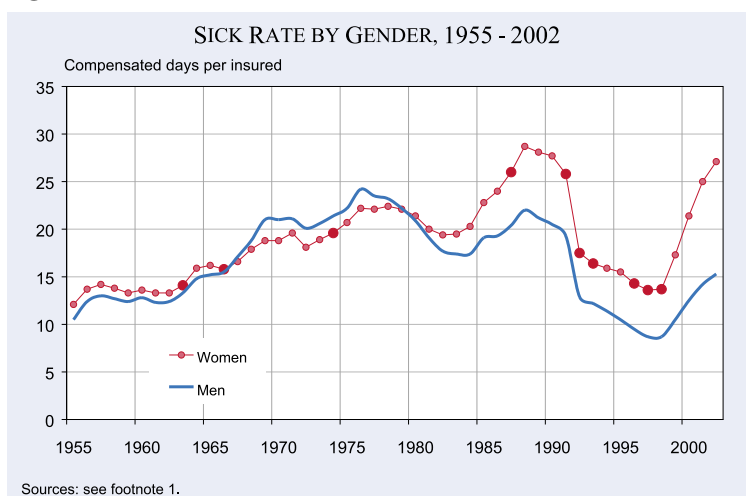
alternative to other states, such as unemployment insurance, temporary child allowance, social allowance, and disability pension; 3) to what extent the sickness insurance may decrease the risk exposure to less friendly work environment and/or job requirements.

Facts and empirical evidence

It is well known that Sweden is one of the countries with very generous sickness insurance (the same as in Norway and in the Netherlands). The generosity of the Swedish insurance system varies across time, being more generous during the good times and less generous during the bad times. This trend has been revealed by empirical tests (e.g., Henrekson and Persson 2002), but it is also easily shown by simple plots of the evolution of the sickness absenteeism in Sweden over time (Figures 1–4). The National Social Insurance Board makes available a huge amount of data on sickness absenteeism in the form of aggregated time series and several micro databases (some of them longitudinal). At the aggregate level, for example, three main indicators are presented: days of sickness with cash benefit (*sjukpenningdagar*), the sick rate per insured person (*sjuktalet*), and the sickness frequency rate (*sjukpenningfall*). The sick rate per insured person represents the annual number of benefit days (full or partial) per insured person in relation to the number of persons insured for sickness benefit at the end of the year. Sick pay to employees from the employer is not included. The sickness frequency rate stands for the annual number of concluded cases of illness, that led to benefit payments viewed in relation to the number of insured individuals, at the end of the year. These indicators are aggregated by year, quarter, and month, and by different characteristics (gender, age, region, etc.).

Sweden has had at least 13 changes in the rules of the sick leave compensation system since 1955 (1963, 1967, 1974, 1987, 1991, 1992, 1993a, 1993b, 1996, 1997, 1998a, 1998b, 2003), which are represented by the bold circles of the lines in Figure 1. There have also been changes in the rules of the administrative process that monitor the sickness cases, such as the requirement of a certificate from a doctor as soon as the spell exceeds a certain number of days, and the qualification criteria for receiving long-term sickness benefits. There is

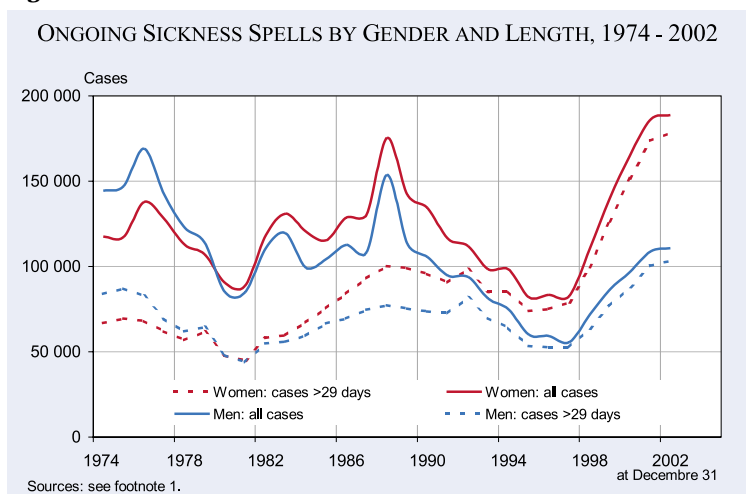
Figure 1



empirical evidence of the effect of the rule change on sickness absenteeism², but some of the fluctuations are caused by the changes in the definition of the indicators. For example, before 1977, the sick rate per insured person is computed using the total of all compensated days, divided by the number of all insured people, i.e., all residents of at least 16 years of age.

² For example, Lantto and Lindblom (1987), Johansson and Palme, (1996, 2002), Johansson and Brännäs (1998), Bäckman (1998), Lidwall and Thoursie (2000), Andrén (2001a, 2001b, 2001c), Broström et al. (2002), Henrekson and Persson (2002), and Skogman Thoursie (2002). These studies used different databases and statistical methods, the most common setup being to analyze how absenteeism differs across individuals with respect to individual characteristics (age, gender, marital status, earnings, etc.). Economic incentives are captured by the after-tax wage rate, or the difference (or ratio) between the wage rate and the sick-leave compensation. The analyses are done either at a single point in time, or over time. The latest data format (being time series or longitudinal) allows for variation in economic incentives, individuals differing with respect to marginal tax rates, compensation levels, or other aspects of the insurance scheme. Johansson and Brännäs (1998) analyzed the economic incentives of work absence using a household model, which does not seem to add any more explanation than the individual model, estimated by Johansson and Palme (1996).

Figure 2



All figures indicate that sickness absence tends to vary cyclically.³ This may suggest effects of the change in the rules of the sickness insurance and/or disciplining effects of unemployment, but may also reflect changes in the composition of the workforce and/or that health is affected adversely in boom periods. There is empirical evidence that when the benefits become more generous, i.e., higher compensation rates compared to the previous period (as in 1963, 1967, 1974, 1987 and 1998), the number of

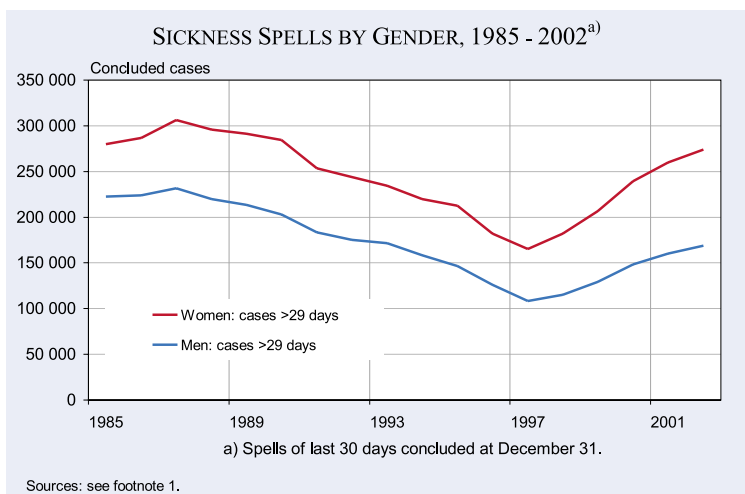
sick days increase, and when the insurance system becomes more austere, i.e., lower compensation rates (as in 1991 and 1995), the number of sick days fall (e.g., Lantto and Lindblom, 1987, Bäckman, 1998, Lidwall and Thoursie, 2000, Andrén, 2001a, Johansson and Palme, 2002, Henrekson and Persson, 2002). Additionally to the effect of the compensation rate, other constraints also affect the decision of work absence due to sickness. For example, a doctor's certificate was required in most of the cases only from day eight of the sickness spell. Therefore, one might expect in some cases of seven days or less that people would go to work instead of taking sick leave. There is empirical evidence that shows that the closer the beginning of the spell was to the following weekend, the shorter was the spell, and absences that started on the weekend (especially Sunday) lasted the longest (see Andrén 2001a). Additionally, watching sport-

ing events on television is found to explain some of the increase in the number of men who reported sick.⁴

³ Arai and Skogman Thoursie (2000) using industry-region panel data for the period 1989:1-1999:4, find a stable negative correlation between sick-rates and shares of temporary contracts, implying that procyclical sick-rate is compatible with the idea that sick-report incentives are procyclical.

⁴ Skogman Thoursie (2002) estimate the potential abuse of the sickness insurance system in Sweden by comparing the change between the number of men and women who report sick during a popular sporting event (i.e., the World Championship cross-country skiing competition over 30 kilometers in Oberstdorf, Germany, on 12 February 1987 and the Winter Olympic Games in Calgary, Canada, 13-28 February 1988) and a preceding time period.

Figure 3



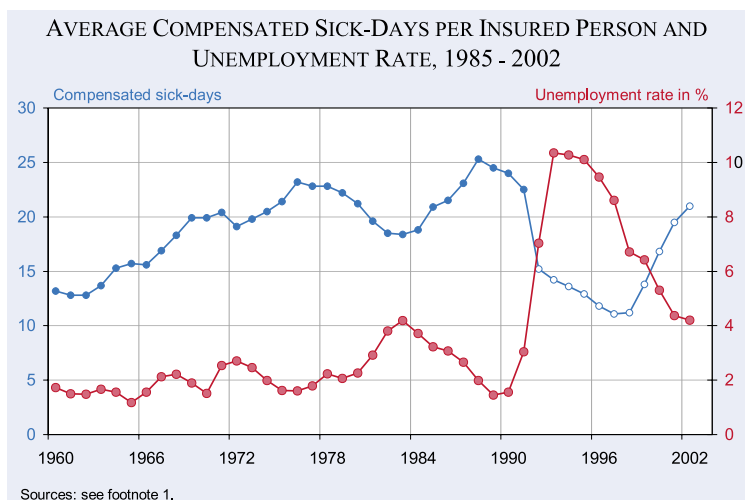
After the unpaid waiting day was abolished in December 1987, there was a significant jump in the average number of compensated days of absence due to sickness, even though during the first two weeks only scheduled workdays were covered. After the replacement rates were lowered (especially during the first three days) in early 1991, the absence rate fell drastically. Besides the high unemployment and lower replacement rate, the introduction of a two-week “employer period” in January 1992 (represented by the light circles in Figure 4), contributed to a drop in average days of absence due to sickness. During the 1990s, the unemployment rate increased very much (from less than 2 percent in 1991 to more than 10 percent in the middle of the 1990s). The unemployed are also covered by sickness insurance, and for example, according to government estimates for 1999, unemployed people, including students, reported

about 20 percent of the total sick days. This may be explained by the fact that those who become unemployed may have previously had a higher rate of work absence than the rest of the labor force. Additionally, sickness insurance seems to be a more attractive choice than unemployment insurance, which offers a lower compensation rate⁵ and a coverage limit of 300 workdays.⁶

Figures 1–3 show that there are differences between the sickness absenteeism of women and

men. Even though women’s participation in the labor market was relatively low, women were sick more days per year than men until 1966. During the period 1967–1980, men were sick more days than women. Afterwards, until the present, the sickness insurance compensated more days of sickness for women. The difference between the compensated days of women and men increased from less than 1 percent (or 273,000 days) in 1981, year to year, until 1990, when it was 26.60 percent (or 13.3 million days). Afterwards, the relative difference fluctuated around this value until 1994, when it started to increase again: from 26.51 percent in 1995 to 69.3 percent (or 28.5 million days) in 2002. Empirical evidence shows that the economic incentives appear to be the predominant factor in explaining the higher work-absence rate of females (e.g., Henrekson and Persson, 2002, Broström et al., 2002).

Figure 4



⁵ The sickness benefit for unemployed people was adjusted from 1 July 2003 to prevent it from being higher than unemployment benefit. Before, many unemployed people, and especially white-collar workers, received higher benefits when they were sick, because of trade union insurance and other schemes (e.g., the ceiling level for the maximum compensation). The government believes that it is appropriate that unemployed workers should not receive a higher income when they are sick than other workers do.

⁶ For example, Larsson (2002) analyses how the sickness report rate and the length of the subsequent sick period among the unemployed are affected by the limit of 300 workdays for unemployment benefits, and the difference in maximum compensation paid by unemployment and sickness insurances. Her results suggest that sick reports increase as the unemployment benefit expiration date approaches, and an incentive effect on the sick-report rate due to a greater compensation paid by the sickness insurance.

For example, one third of the gender difference in work absence behavior during 1990–1991 can be attributed to differences in costs of being absent (see Broström et al. 2002). Another explanation of the gender difference can be attributed to a relatively high stock and/or inflow of sick women (Figures 2 and 3). For example, since 1998 the number of women who have been listed sick longer than a year has more than doubled, whereas the number of men has grown by 80 percent.

Conclusions

It is almost impossible to draw definite conclusions about the difference between Sweden and other countries, but statistical evidence (e.g., Nyman et al. 2002) gives indications that the age structure of the Swedish work force, the high level of employment among older people, the high frequency of gainful employment among women and the high proportion of permanent employees have contributed to a higher rate of absence due to sickness.

The total of transfers for sickness and disability through the social insurance system constitute an important part of the economy, and policymakers are occasionally motivated (for example, by government deficits) to reduce them. However, regardless of the magnitude of the effects of the economic incentives, the health status of the people is the most important factor. Therefore, there are always individuals who are insensitive to economic incentives.⁷

Sickness insurance aims to help such persons. It is also aimed to help prevent illness. Therefore, being absent from work due to a temporary illness might imply an increasing probability of maintaining a good health status, both in the short and long run. Consequently, decreasing the replacement rate of sickness insurance increases the cost of making such investments.

Nevertheless, total expenditure for any particular program, such as sickness and disability insurance,

depends not just on the average expenditure level per recipient and on their length of stay in the program but also on the total number of recipients. Therefore, in attempting to limit sickness and disability expenditures, policymakers could choose to limit the average daily benefit or the duration of stay, or to restrict the flow of new recipients into the program. Unfortunately, the effects of policies to limit duration of stay are uncertain, because there is not very much known about the duration of sickness and temporary disability spells.

In conclusion, sickness insurance is a potential source to maintain relatively good health of the working age population, and even to decrease the health care cost during retirement. However, it seems that preventing employees from diminishing their work capacity is one of the most desirable solutions. The work capacity of the individual should be better utilized and lost work capacity should largely be regained. This should be achieved in collaboration with relevant authorities and other agencies. Regardless the employers' cost for prevention (e.g., improving work environment, job requirements and working conditions), their contribution to the social sickness insurance seems to be a guarantee of better health.

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⁷ Andrén (2001a) analyzes spells of 7 days or less during 1983-1991 (a period with three regimes of sickness insurance) for two samples: working-age population and working age population long-term sickness history. The results for both samples show that the 1991 reform (which lowered the replacement rate) had a stronger effect on the hazard of ending short-term absenteeism than did the 1987 reform (which eliminated the previous unpaid "waiting day", while restricting the remuneration to only those days when people were scheduled to work). Even though economic incentives matter, people with poorer health do not "shorten" their absences in the same extent as those with better health.

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