

Bad health strongly increases the risk of becoming unemployed or inactive

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An active person has many more risks of becoming non-employed¹ if he/she suffers from health problems. According to this study, the short term risk of becoming inactive, within four years, is multiplied by 4 for persons suffering from a long term disease and by 1.5 for persons suffering from an incapacitating disease. The risk of unemployment is two times greater for persons who consider themselves as having bad health with respect to those who declare themselves in good health.

While the health condition is only one of the factors involved in the choice of individuals to stop working or in the decision of the employers to make them redundant, it must be taken into account, independently of strictly professional criteria such as diploma or experience, for a better understanding of professional trajectories.

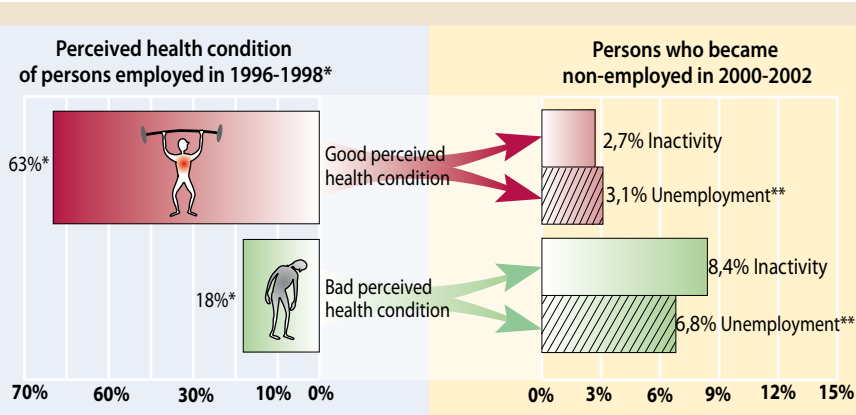
¹ At employment age and according to the INSEE; the actives include mainly early retired, homemakers or inactives receiving a disability pension.

In France, the last decades have been marked by a threat to employment, an increase in unemployment and a deterioration of certain work conditions due to the intensification of rhythms and irregular hours. In this context where work becomes rarer and more distressing, we can wonder about the role of health in the integration to the labour market

Several French studies have shown that the inactive and the unemployed are in less good health than those employed (Khlata and Sermet, 2004), which could be explained by several factors. On the one hand, inactivity and unemployment can have a negative impact on health due to financial difficulties and social isolation. On the other hand, the health condition can have an influence on employment, as health problems can be the cause of a loss of job or difficulties in finding one. It is this second mechanism that is examined here, analysing the link between the health condition of an initially employed population and the risk of being non-employed four years later.

There are two forms of exiting employment. Unemployment corresponds to the fact of being without a job while looking for one; inactivity corresponds to being without a job but not looking for one. For persons of working age, this category

Proportion of persons who became without employment in 2000-2002, according to their perceived health condition in 1996-1998



Inactive: persons without employment and not looking for employment
Unemployed: persons unemployed looking for employment

*19% of persons employed in 1996-1998 did not respond concerning their health condition

** % calculated after deducting the 2000-2002 inactive

Source : IRDES, ESPS 1992-95, 1996-98, 2000-02 Survey

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ry includes mainly homemakers, pre-retired and persons with work incapacity. Therefore, while the effect of health on the path towards inactivity may seem obvious, especially in men for whom inactivity is often related to health reasons, the role of health on the path towards unemployment or other forms of inactivity remains to be explored.

Unemployment should not be related to the health condition of an individual. According to article L 122-45 of the Work Code, nobody can be excluded from a recruitment procedure and no employee may be made redundant due to his/her health condition or handicap,

except in case of inaptitude. In reality, the new work organisation forms have led to the emergence of health standards at work and it may be envisaged that the physical and mental capacities required to meet employers' expectations are factors that favour labour market integration (HCSP, 1998). Furthermore, economic theory suggests that persons in bad health are less incited to make efforts to keep their job or find one, due to their greater difficulties at work.

In France, the relationship between health and professional trajectories has been little examined due to the scarcity of longitudinal data. Only the ESTEV (Health,

This study, carried out in collaboration with the INED; was performed in the context of the "Health and Work" call for tenders of the DREES, DARES and the Postal Service Research Mission. It concerns mainly the relationship between health and professional trajectory, poorly studied up to now. The longitudinal exploitation of the Health and Social protection survey of the IRDES over the 1992-2002 period allowed studying within a employee population, the link between health condition and a later risk of finding oneself without employment.



The survey on health and social protection (ESPS)

This study was performed from a longitudinal exploitation of data from the Health and Social Protection surveys (ESPS) of the IRDES. These surveys questioned households in which at least one of the members is part of a representative sample of insured in the three main Health insurance regimes.

From 1992 to 2002, this sample was surveyed three times, thus allowing the obtainment of information on the same individuals at three dates during the following periods: 1992-1995, 1996-1998 and 2000-2002.

Study field:

To analyse the relationship between health condition, participation in labour market and risk of unemployment, the field of study was restricted to persons aged 30 to 54 years* initially employed, i.e. currently working, in long term sick leave or maternity leave. The sample was also restricted to persons working

* After 55 years, the employment exit mechanisms are different due to pre-retirement. Also, before the age of 30 years, many young are still students or in an unstable situation with respect to employment.

Source of the analysis: Health and Social Protection Survey

with permanent or temporary work contract, excluding specific insertion and return to employment contracts. Furthermore, in as much as the study deals with the risks of becoming unemployed, individuals employed in protected sectors (Civil servants, municipal employees, and employees in public companies) were excluded.

In total, the final sample was composed of 4,523 persons observed in 1992-95 and 1996-98 and 4,554 observed in 1996-98 and 2000-02.

The measurement of the health condition in the ESPS survey

Three measurements of the health condition were retained in the study: the perceived health, declaration of incapacitating disease and the presence of a long-term disease.

The perceived health is obtained from the answer to the question: "Could you score between 0 and 10, your health condition?" (0: in very bad health, 10: excellent health). The persons who give themselves a note of at least 8 are considered to be in good health.

The "declaration of at least one incapacitating disease" was defined based on a di-

sease characterisation by IRDES researchers, as a function of their functional consequences. A large spectrum of diseases were considered as incapacitating, which provoke at least a discomfort in daily life, for example asthma without complication or an onset of arthrosis, and at the maximum a total loss of autonomy.

The presence of a long duration disease (LDD) is picked up by the following question: "Do you have 100% coverage from the Social security, the State or the department?". Diseases such as cancer, AIDS, stroke, and renal failure are diseases which are covered 100% by the Social security.

During the 1992-95 period, 20% of persons 30 – 54 years old in a salaried job in the private sector declared themselves to be in bad health. One out four persons declare suffering from at least one incapacitating disease and 3% are covered at 100% by the Social security, due to a long duration disease (LDD). In the following period, 1996-98, 18% of these persons declare themselves to be in bad health, 27% suffer from

at least one incapacitating disease and 4% are in LDD.

Three analyses carried out successively

Three analyses, performed using logistic regressions, were used to study the specific effect of the health condition of persons initially employed on their professional situation four years later.

The 1st analysis studies the probability of being non-employed four years later, irrespective of the employment exit mode: inactivity or unemployment. The 2nd analysis specifically explores the probability of becoming inactive four years later (mainly homemakers, pre-retired or inactive with incapacity pension) versus active persons (employed or unemployed). The 3rd analysis, restricted to the active at two dates (therefore, excluding all the persons who became inactive), concerns the health profile of those who became unemployed.

To carry out these analysis "with everything else being equal", several explanatory variables were retained: gender, age, education level, type of work contract, family situation and the presence of children under 6 years in the household.

work and ageing survey) survey showed that an alteration in the health condition contributed to more frequent employment exit, but without differentiating between the risk of unemployment and the risk of inactivity (Saurel-Cubizolles *et al.*, 2001).

The longitudinal dimension of the ESPS survey allows completing this knowledge by studying from the observation of the same population during three periods 1992-95, 1996-98 and 2000-02, the effect of the health of persons employed in the private sector at a given date on the probability of no longer being employed four years later. This analysis was performed taking into account other factors influencing the situation on the labour market (age, sex, education level, type of work contract and family situation). It is carried out by firstly grouping all the employment exits, and then differentiating between exits towards inactivity from those towards unemployment.

After four years, one out of ten of the 30 to 54 years old employees has exited employment

Between the period 1992-95 and the period 1996-98, 10.7% of the employees exited employment (inactivity or unemployment). These exits from employment four years later only concern 7.8% of persons employed in 1996-98. The passage to inactivity, which concerns 4 % of the employees in each period, is mainly explained by the fact of becoming a homemaker (approximately 40%), pre-retired (30 to 35%) or invalid (20%). Unemployment affects 6.4 % of persons with a job during the 1992-95 period, and only 4% of the persons who had a job in 1996-98 (see table opposite).

Persons in bad health become more often without employment

A bad health condition considerably increases the risk of exiting from employment, i.e. becoming inactive or unemployed. 15.5% of persons who declare themselves to be in bad health in 1992-95 exited from employment four years

Proportion for persons who exited from employment as a function of their health condition when they were still employed four years earlier

Health condition when the persons were employed	Employment situation in 1996-98 of individuals employed in 1992-95			Employment situation in 2000-02 of individuals employed in 1996-98		
	Without employment	Inactive	Unemployment	Without employment	Inactive	Unemployment
Bad health	15,5%	6,7%	9,4%	14,6%	8,4%	6,8%
Good health	8,4%	3,2%	5,3%	5,7%	2,7%	3,1%
At least one incapacitating disease	13,9%	6,6%	7,8%	11,0%	6,2%	5,1%
No incapacitating disease	9,0%	3,3%	5,9%	6,2%	3,0%	3,3%
Long duration disease (LDD)	29,3%	18,8%	13,0%	18,4%	13,4%	5,7%
No LDD	10,1%	3,8%	6,5%	7,4%	3,7%	3,9%
% within the total sample	10,7%	4,2%	6,7%	7,8%	4,0%	4,0%
Total size of sample studied	4 523	4 523	4 331	4 554	4 554	4 370

*The category of persons without employment includes the other two, i.e. inactive and unemployed
Source : IRDES, ESPS 1992-95, 1996-98, 2000-02 Survey

Effect of health effect on the probability of exiting employment, becoming inactive or unemployed four years later

Health condition of persons employed	Transition from 1992-95 to 1996-98		Transition from 1996-98 to 2000-02	
	Odds ratio	IC 95 %	Odds ratio	IC 95 %
Reference category: good health				
Bad health	1.7***	[1.3 - 2.1]	2.2***	[1.7 - 2.8]
Health undeclared	1.7***	[1.3 - 2.2]	1.3	[0.9 - 1.7]
Reference category: no incapacitating disease				
At least one incapacitating disease	1.3**	[1.1 - 1.7]	1.6***	[1.2 - 2.0]
Diseases not filled in	1.4*	[1.0 - 2.0]	1.2	[0.9 - 1.7]
Reference category: no long duration disease (LDD)				
Long duration disease (LDD)	3.3***	[2.2 - 5.0]	2.6***	[1.7 - 4.0]

Health condition of persons employed	Transition from 1992-95 to 1996-98		Transition from 1996-98 to 2000-02	
	Odds ratio	IC 95 %	Odds ratio	IC 95 %
Reference category: good health				
Bad health	1.7**	[1.2 - 2.4]	2.3***	[1.6 - 3.2]
Health undeclared	1.5	[1.0 - 2.3]	1.3	[0.8 - 1.9]
Reference category: no incapacitating disease				
At least one incapacitating disease	1.6**	[1.2 - 2.3]	1.7**	[1.2 - 2.4]
Diseases not filled in	1.3	[0.8 - 2.2]	1.2	[0.8 - 1.9]
Reference category: no long duration disease (LDD)				
Long duration disease (LDD)	5.5***	[3.3 - 9.2]	3.9***	[2.4 - 6.5]

Health condition of persons employed	Transition from 1992-95 to 1996-98		Transition from 1996-98 to 2000-02	
	Odds ratio	IC 95 %	Odds ratio	IC 95 %
Reference category: good health				
Bad health	1.6**	[1.2 - 2.1]	1.9***	[1.3 - 2.8]
Health undeclared	1.8***	[1.3 - 2.4]	1.3	[0.8 - 1.9]
Reference category: no incapacitating disease				
At least one incapacitating disease	1.2**	[0.9 - 1.5]	1.4	[1.0 - 2.0]
Diseases not filled in	1.5*	[1.0 - 2.2]	1.2	[0.8 - 1.9]
Reference category: no long duration disease (LDD)				
Long duration disease (LDD)	1.8*	[1.0 - 3.3]	1.3	[0.7 - 2.8]

Significance thresholds: * 5%, ** 1%, *** 0,1%.

Reading guide: after controlling by gender, age, education level, type of work contract, family situation and presence of young children, the probability of being without employment in 2002-02 is approximately 2.2 higher for the persons who declared themselves in bad health than for the persons who declared themselves in good health in 1996-98.

Download the detailed tables (<http://www.irdes.fr/EspaceRecherche/Qes/Qes125.htm>).

Source : IRDES, ESP 1992-95, 1996-98, 2000-02 Survey

later, versus only 8.4% of persons who declared themselves in good health. The difference becomes bigger during the following period 1996-98/2000-02, with 14.6% of persons declaring themselves in bad health and 5.7% for those declaring themselves in good health.

These descriptive results are confirmed by analysis taking into account all the other factors: the risk of being non-employed of persons in bad health is approximately two times greater than that for persons in good health (see table p. 3).

Furthermore, at comparable health conditions, the probability of exiting from employment is greater for women than for men and for persons employed in the framework of a fixed term contract. Even if the effect is smaller, the education level is also involved, those with more diplomas have fewer risks of exiting from employment.

Suffering from a long-standing disease multiplies by 4 the risk of becoming inactive

The differences are even more marked if only the exits from employment towards inactivity are taken into account. The proportion of persons who became inactive four years later is of 7% to 8% among persons who declared themselves in bad health and only 3% for those who declared themselves in good health.

Like for all the exits from employment, the risk of inactivity is, with all things considered being equal, two times higher for persons who declared themselves in bad health, and one and a half times higher when they suffer from an incapacitating disease. Compared to persons in good health, the risk of becoming inactive is four to five times higher for persons suffering from a long-standing disease. These diseases are serious diseases, which



FURTHER INFORMATION

- Haut Comité de la Santé Publique (1998), *La progression de la précarité en France et ses effets sur la santé*. Rennes, Éditions ENSP.
- Jusot F, Khlat M, Rochereau T, Sermet C. (2007), *Les itinéraires professionnels en relation avec la santé : Une exploitation longitudinale de l'enquête sur la santé et la protection sociale de l'IRDES*. <http://www.irdes.fr/Publications/Rapports2007/rap1662.pdf>.
- Jusot F, Khlat M., Rochereau T (2007), Job loss from poor health, smoking and obesity: a national prospective study in France, *Journal of Epidemiology and Community Health*.
- Jusot F, Khlat M., Rochereau T, Sermet C. (2006), Une mauvaise santé augmente fortement les risques de perte d'emploi. *Données Sociales*, La société française, 533-543.
- Khlat M. et Sermet C. (2004), La santé des chômeurs en France : revue de la littérature, *Revue d'Épidémiologie et de Santé Publique*, (52)
- Saurel-Cubizolles M-J. et al. (2001), *État de santé perçu et perte d'emploi, Travail, santé et évolutions avec l'âge*. Toulouse, Octares Éditions.

often in the end render the persons unfit for work.

At comparable health conditions, women are three times more likely to become inactive than men. In the population studied, the inactive are mainly housewives. The passage to inactivity is also more frequently in persons initially aged between 50 and 54 years, due to early retirement. Finally, the passage to inactivity is less frequent in persons with a higher education level.

A bad health condition increases the risk of becoming unemployed

The differences are smaller, but remain very marked for the exits to unemployment. 9.4% of persons who declared a bad health condition in 1992-95 are unemployed in 1996-98, while only 5.3% of persons in good health are in such a case. For the following period, these proportions increase to 6.8% for persons in bad health and 3.1% for persons in good health.

At comparable age, gender, education level, type of work contract and composition of households, the persons who declared themselves in bad health have a higher risk of becoming unemployed. This risk is between 1.5 and 2 times higher. At

a comparable health condition, the risk of later unemployment is one and a half times higher for women than for men and also two times higher for persons aged 50 to 54 years, and for persons living alone or in non-nuclear families. The persons with a fixed term work contract have a risk 3 times higher of passing into unemployment, while those with a higher education are relatively protected from unemployment.

This study demonstrates the existence of a close link between the health condition and the future situation with respect to employment in an employee population aged 30 to 54 years. Among the persons with a job, bad health is not only associated with an increase risk of inactivity four years later, but also with a greater risk of unemployment.

These results suggest that a bad health condition could be the source of a more frequent exit from employment or also of difficulties finding a job, irrespective of the cause of exit from employment: health reasons, economic redundancy, voluntary exit to raise children, etc.

Health condition is only one of the factors involved in the employers redundancy decision, in voluntary job exit or in the greater difficulties in finding a job following redundancy. And yet, it must be taken into account for a better understanding of professional trajectories.