



THE IMPACT OF EMPLOYEES WORK ABSENTEEISM DUE TO CARE FOR A SICK PERSON ON PRODUCTIVITY IN POLAND



Witold Wrona, Tomasz Hermanowski, Michał Jakubczyk, Marcin Czech

Department of Pharmacoeconomics, Medical University of Warsaw, Poland.

Correspondence:

Witold Wrona, Department of Pharmacoeconomics, Medical University of Warsaw, Pawinskiego 3A, 02-103, Warsaw, Poland, E-mail: witold.wrona@wum.edu.pl

Background and objectives

Indirect costs reflect the reduction in productivity in market and household work due to morbidity and mortality [1]. The inclusion of indirect costs of illness in pharmaco-economic studies is still a subject of considerable debate and the attitude towards indirect costs is likely to vary in each country [2]. The work absenteeism due to care for a sick person can also be considered as indirect cost of illness. This study aimed at assessing the global burden of caring for the ill person on productivity in Poland. Here we present updated and verified data set.

Methods

Data were obtained from a survey that incorporated the Polish translation of WPAI:GH (General Health, Version 1.0) questionnaire and information on burden of care for a sick family member during computer-assisted personal interview in a representative sample of the Polish general population aged more than 15 years. The 9-question questionnaire was developed for quantitative assessment of the amount of absenteeism and daily activity impairment due to care for a sick person – child, other family member or other person. The questions referred to the last one-year period.

The study was conducted in cooperation with Pentor Research International in two waves in January and May 2010.

Human capital approach was used with GDP per capita (8,798 EUR in 2009, current prices [3]) as a measure for the monetary value of a time unit (4.6 EUR per hour; 1 EUR = 4 PLN).

Results

There were 2019 respondents in total, gathered in two waves in January and May 2010. The target population comprised 889 employed persons. Characteristics of the study participants are shown in table 1.

Table 1. Participants characteristics.

Total population, n = 2019		Settlement, n (%):	
Participants, n (%):		- rural area	283 (32)
- employed (paid job)	932 (46)	- < 20,000	116 (13)
- students	401 (20)	- ≥ 20,000 - < 49,999 PLN	99 (12)
- pensioners	398 (20)	- ≥ 50,000 - ≤ 199,999 PLN	170 (21)
- housewives	140 (7)	- ≥ 200,000	164 (19)
- unemployed	148 (7)	- capital	57 (6)
Target population, n = 889*		Household's income**, PLN:	
Employed, n (%):		≤ 1,000	16 (2)
- in budgetary entities	215 (24)	> 1,000 - ≤ 2,000	124 (14)
- in private sector	554 (62)	> 2,000 - ≤ 3,000	247 (28)
- employers/farmers	120 (14)	> 3,000 - ≤ 4,000	161 (18)
Education, n (%):		> 4,000 - ≤ 5,000	91 (10)
- primary	19 (2)	> 5,000	54 (6)
- basic vocational	228 (26)	- refused to answer	196 (22)
- post-secondary and secondary	463 (52)		
- tertiary	179 (20)		

* employed persons who agreed to participate in this part of the study;
** 1 000 PLN ~ 250 EUR.

Based on the study of 889 employees, 146 (16%) responders took care for a sick person in the last 12 months – 70 (8%), 68 (8%), and 12 (1%) responders took care for a child, other family member and a non-family member, respectively.

On average a respondent spent 34 hours a year taking care for a sick person (13 h/year caring for a child; 16 h/year caring for other family member; 4 h/year caring for a non-family member) – table 2.

Conclusions

Additionally to working time loss due to illness of employee, caring for the sick person, mostly family member, influences working time. This cause of productivity loss of a single employee has a moderate impact on production, but in global scale or in specific health condition it might be perceived as an important factor modifying total costs of illness.

Results

Table 2. Number of hours spent taking care for a sick person during working time and off-work in a 12-months period (n = 899).

	N=889, (%)	Mean, h /y	SD
Care for a sick person:	146 (16)	33,8	147,0
- child	70 (8)	13,3	72,01
- other family member	68 (8)	16,4	115,52
- non-family member	12 (1)	4,0	54,1

The work absenteeism due to care for a sick person was 2-fold higher than activity impairment – 23 h vs 11 h, not significant (figure 1).

In the subgroups analysis work time and off-work time missed due to care for a sick person was higher in a group of employees in budgetary entities (17 h and 37 h) than in private sector (10 h and 16 h) or employer/farmer (6 h and 28 h), but none of the pairwise comparison reach statistical significance (figure 2).

Average percent of missed work done by other people at work was 40%; the lowest was in employers/farmers groups (27%) but differences between groups were not significant.

Estimated productivity lost equals 51 EUR (11,2 h x 4.6 EUR) per year for each employee. Incorporating work done by other people (40%), productivity loss equals 31 EUR per year for each employee.

Global burden of caring for the ill person on productivity in Poland was estimated around 490 mil. EUR per year (15.8 mil. employed persons [3]).

Figure 1. Number of hours spent taking care for a sick person during working time and off-work in a 12 months period (n = 899).

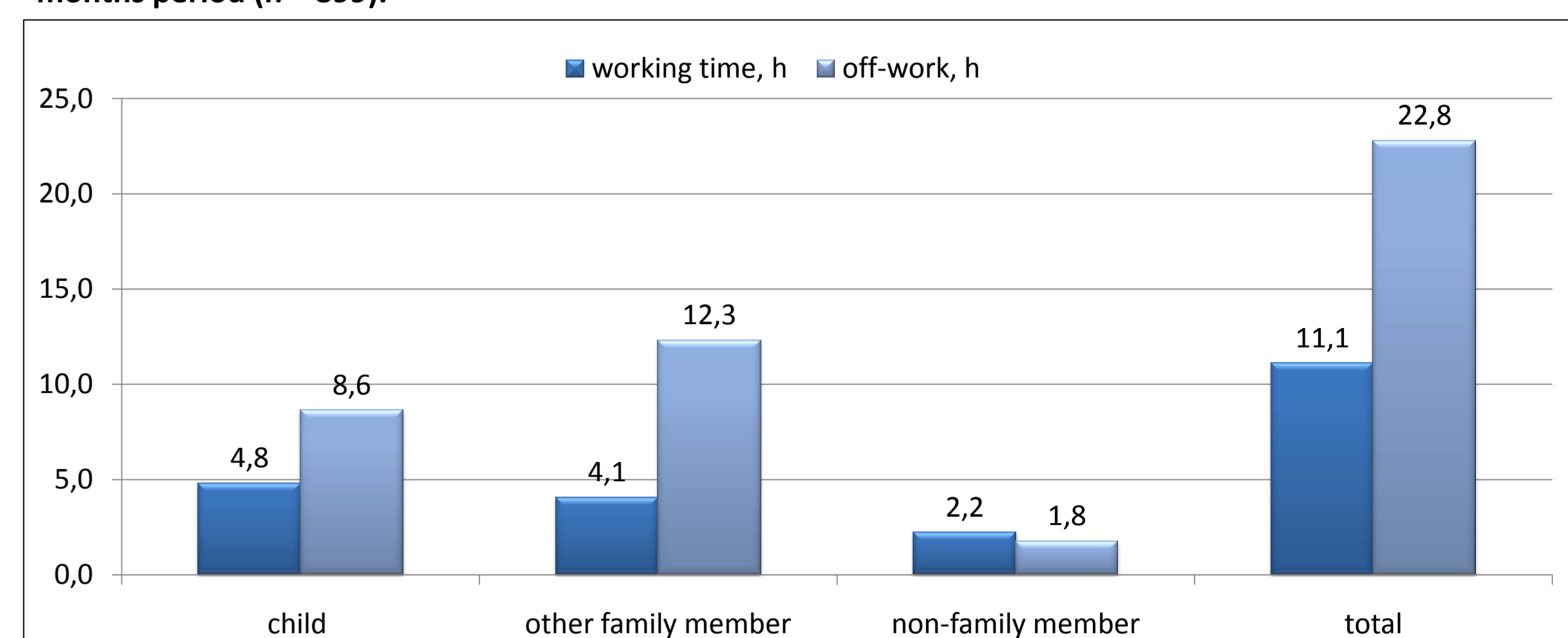


Figure 2. Number of hours taking care for a sick person during working time and off-work in a 12 months period (n = 899). Paid employment subgroup analysis.

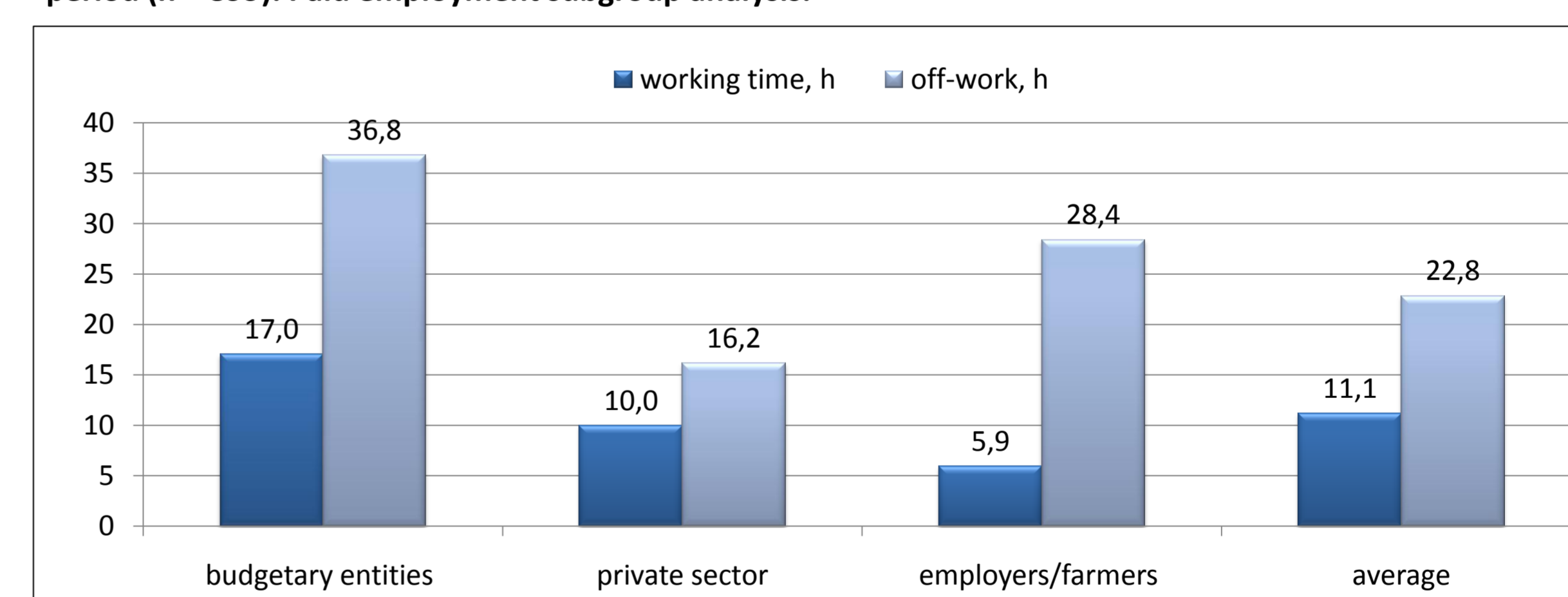
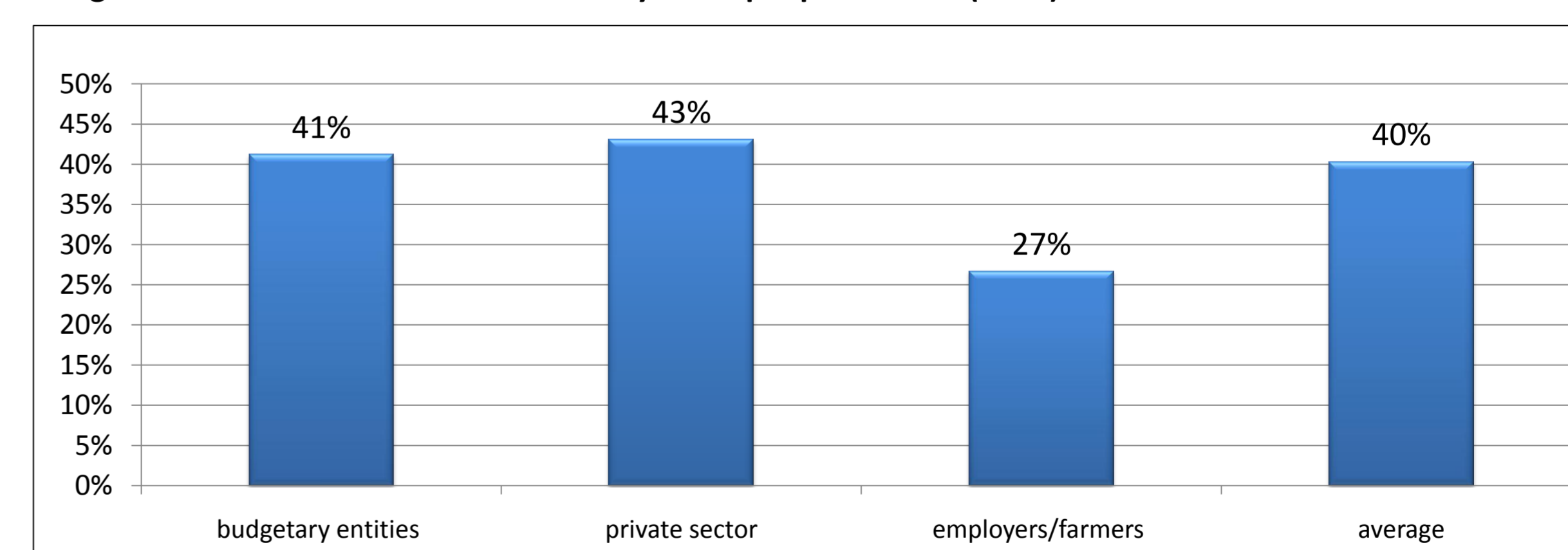


Figure 3. Percent of missed work done by other people at work (n=65).



References

- [1] Gold M, Siegel J, Russell L, Weinstein M. Cost-effectiveness in health and medicine. Oxford University Press. New York 1996
- [2] International Society For Pharmacoeconomics and Outcomes Research. Pharmacoeconomic Guidelines Around the World.
- [3] Central Statistical Office of Poland, <http://www.stat.gov.pl>

Acknowledgments

The survey is a part of a research project „Methods of calculating indirect costs of illness and the influence of health status on work activity and productivity – importance in pharmaco-economic evaluation of health technology” coordinated by Department of Pharmacoeconomics, Medical University of Warsaw, Poland, Head of Department: prof. Tomasz Hermanowski.

The project is supported by grant agreement with State Committee for Scientific Research, Poland.