# Determinants of the intention to leave the profession for hospital physicians and nurses: results from a cross-sectional survey in four EU countries.

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#### Introduction

The shortage of healthcare workers in the European Union could lead to severe consequences as reduced access to healthcare services, increased workload for the workers, job dissatisfaction, chronic stress, burnout, and intention to leave [1,2,3]. To effectively contrast such a shortage, it is essential to find the determinants of the intention to leave healthcare profession (ITL).

## **Objectives**

This study aims: 1) to estimate the prevalence of ITL for physicians and nurses in Europe, 2) to investigate the determinants of ITL, and 3) to suggest possible job retention policies.

### **Materials and Methods**

The METEOR survey is a cross-sectional study on physicians and nurses working in eight hospitals of Belgium, the Netherlands, Italy, and Poland. Data were collected from May to September 2022 through the METEOR online questionnaire for Turnover intention (MTI). MTI was built within the framework of a job demands - job resources (JD-R) model on the base of validated questionnaires measuring job satisfaction, work engagement, burnout and ITL, as well as workers' individual characteristics and hospital characteristics. ITL was assessed as agreement with the sentence "I intend to leave my healthcare profession for another job" and the response items were scored on a 5-point Likert scale. Job dissatisfaction (JDS) was measured by a binary variable created from a general question on job satisfaction (1=dissatisfied or very dissatisfied, 0=otherwise). Depersonalization (DP), which is a component of burnout, was first measured through a composite indicator of 5 items from the Maslach Burnout Inventory (MBI) [4], and then dichotomized by using a score of 13 as cut-off for depersonalization (1= "depersonalization score>=13", 0="<13") [5].

Two multivariable logistic models for ITL were estimated for both physicians and nurses. In the model for nurses, the covariates included were JDS, DP, and some workers' individual and hospital characteristics, as resulting from a univariate analysis. Regarding physicians, because of the low number of participants, Poland was not included in the model. Moreover, in order to reduce the number of parameters to estimate, the medical specialty was dichotomized (1="Surgery", 0="Non-Surgery").

#### Results

The study included 375 physicians, and 1350 nurses. Physicians and nurses who agreed or strongly agreed with ITL were 34 (17%) and 184 (13.6%), respectively. Logistic model for nurses (Table 1) showed very

strong effects of JDS (OR=5.9, p<0.001) and DP (OR=6.4, p<0.001). Young nurses resulted more intended to leave their profession: a one-year increase was associated with a decreased risk of ITL (OR=0.96, p<0.001). Nurses who experienced physical or mental illness, directly caused or exacerbated by their work within the preceding three years, were found to be at a higher risk of leaving their job (OR=2, p<0.001). ITL resulted different among countries, with a reduced effect for Italy (OR=0.37, p=0.043) and a larger effect for The Netherlands (OR=1.74, p=0.016), assuming Belgium as reference.

Estimates from the logistic model for physicians (Table 1) also showed strong effects for JDS (OR=4.7, p=0.003) and DP (OR=3.8, p=0.037). Surgeons were the medical category with the highest ITL (OR=2.82, p=0.012).

Table 1. Estimates from the logit models of the intention to leave the healthcare profession for nurses and physicians.

	Nurses n=1350				F	Physicians n=375			
	OR	95% C.I.		P-value	OR	95% C.I.		P-value	
Sex (Male vs Female)	1.07	0.65	1.71	0.779	-	-	-	-	
Age	0.96	0.94	0.97	<0.001	-	-	-	-	
Nightshifts (Yes vs No)	1.15	0.77	1.72	0.492	2.31	0.93	6.21	0.081	
Covid_frontline (Yes vs No)	1.49	0.91	2.51	0.123	-	-	-	-	
Material (Sufficient vs Unsufficient)	0.77	0.46	1.30	0.313	-	-	-	-	
Health_problems (Yes vs No)	2.02	1.41	2.91	<0.001	2.12	0.85	5.12	0.097	
Country (vs Belgium)									
Italy	0.37	0.13	0.91	0.043	0.57	0.16	1.86	0.366	
Netherlands	1.74	1.11	2.74	0.016	3.29	1.28	9.12	0.016	
Poland	0.42	0.10	1.32	0.185	-	-	-	-	
Dissatisfaction (Yes vs No)	5.94	3.66	9.65	<0.001	4.71	1.66	13.19	0.003	
Depersonalization (Yes vs No)	6.40	3.48	11.90	<0.001	3.76	0.99	12.65	0.037	
Specialty (vs Emergency)									
Medicine	0.65	0.37	1.16	0.139	-	-	-	-	
Surgery	0.70	0.36	1.34	0.279	-	-	-	-	
Other	0.93	0.50	1.78	0.829	-	-	-	_	
Specialty_Bin (Surgery vs Non-Surgery)	_	-	-	-	2.82	1.23	6.37	0.012	

# **Conclusions**

Our survey highlighted the prevalence of ITL for both nurses and physicians in EU. The involved countries may be considered, in some way, as representative of the cultural and socio-economic differences among the EU countries. Our survey found significant individual and work environment characteristics playing a role to explain ITL. While some differences exist among the considered countries, depersonalization and job dissatisfaction were confirmed to be strong determinants of the intention to leave. Recruitment and retention policies, at the micro/meso/macro-levels are needed. It is strategic to support healthcare workers' categories at high risk of leaving their profession, such as the younger nurses.