



Serbian Public Health Association, Belgrade



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## Self-estimated health and practice related to smoking among employees of health institutions in Serbia

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## Acknowledgement


**15 study collaborators from throughout Serbia:**

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## Why studying employees in health institutions?

- Smoking substantially damages health and reduces work ability
- Health institutions (HIs) should be "smoke-free"
- Health professionals are role models for their patients
- Leading role of health professionals in smoking prevention and cessation



## Objectives

- To assess the smoking prevalence in all employees of HIs
- To identify the practice and the most common problems with smoking in HIs
- To estimate health of all employees in HIs related to smoking behaviour



## Methods


- Nationwide representative sample of health institutions in Serbia:
  - **4 regions** (Belgrade, central Serbia, Vojvodina and part of Kosovo & Metohia with predominantly Serbian population)




## Methods

- **4 types of HIs:**
  - primary health care centers - PHCs
  - university hospitals
  - general hospitals
  - public health institutes
- **3 670 employees:**
  - physicians
  - nurses
  - other health professionals
  - technical staff
  - maintenance and support staff

Response rate - **79.6%**

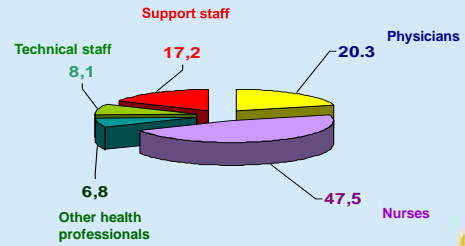


### Subjects' profile

	Total	Men	Women
No.	3670	841	2452
%		25.5	<b>74.5</b>
Mean age (years)*	42.8	43.4	42.5
Mean length of employment**	19.0	19.4	18.9

\*p = 0.019      \*\*p=0.207

### Study subjects

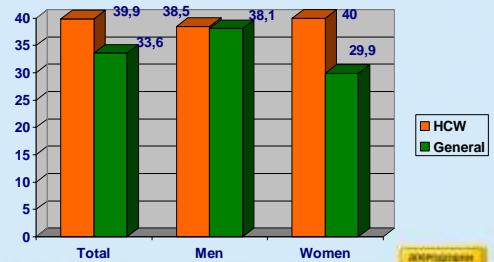


### Smoking prevalence in health care professionals (HCP)

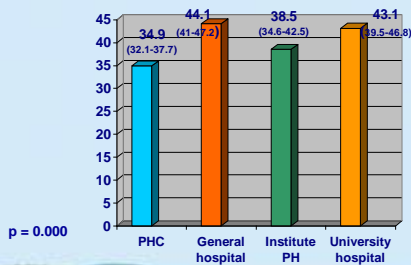
	P	95% CI
Total	39.9	38.3 – 41.6
Men	38.5	35.2 – 41.8
Women	<b>40.0</b>	38.0 – 41.9

p = 0.000

### Smoking prevalence in HCW and total population of Serbia

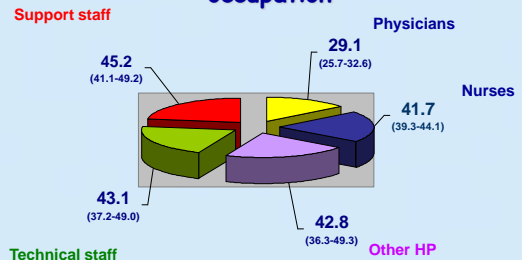


### Smoking prevalence related to the type of HI



p = 0.000

### Smoking prevalence related to the occupation

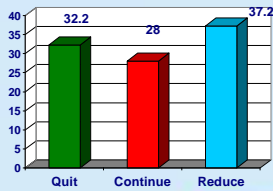


p = 0.000

### Employees - smokers:

- Number of daily cigarettes:
  - total daily = **18.4** (17.8-18.8)
  - at work = **7.0** (6.6-7.3)
- Smoking at work is a **problem**:
  - for **56%** (53-59%) of smokers

#### Future intentions:



### Self-estimated health (1= very bad; 5 = excellent)

Parameter	Proportion	95% CI	p =
Smokers	3.73	3.69 – 3.77	0.001
Non-smokers	<b>3.83</b>	3.79 – 3.86	
Ex-smokers	<b>3.71</b>	3.64 – 3.79	
<b>Total</b>	<b>3.77</b>	<b>3.75 – 3.80</b>	

### Self-estimated bad health (very bad + bad) related to the number of cigarettes/day

No. of cigarettes	N (%)	OR (95% CI)
None	68 (3.4)	-
1 – 10	13 (3.4)	1.01 (0.52-1.90)
11 - 20	32 (4.8)	1.43 (0.91 – 2.24)
≥ 20	15 (6.0)	<b>1.81 (0.97 – 3.31)</b>

### Risk for bad self-estimated health and smoking status

Occupation	Smoking	Ex-smoking
Physicians	<b>1.97 (0.61-6.36)</b>	1.31 (0.13-7.04)
Nurses	1.54 (0.74-3.25)	<b>2.21 (0.87-5.53)</b>
Other health professionals	0.93 (0.17-5.13)	1.18 (0.10-8.61)
Technical staff	<b>0.12 (0.00-0.92)</b>	<b>2.39 (0.57-8.98)</b>
Support & maintenance	<b>2.46 (1.14-5.39)</b>	1.49 (0.44-4.55)

### Sick-leave in previous year related to smoking

Smoking status	%	OR	CI
Non-smokers	17.8	-	-
Smokers	16.1	0.89	0.73 – 1.09
Ex-smokers	22.9	<b>1.27</b>	<b>0.97 – 1.66</b>

### Risk for sick-leave and smoking status (OR; 95% CI)

Occupation	Smoking	Ex-smoking
Physicians	0.77 (0.46-1.29)	1.06 (0.56-1.97)
Nurses	0.97 (0.72-1.30)	<b>1.41 (0.94-2.10)</b>
Other health professionals	0.75 (0.34-1.62)	0.78 (0.27-2.20)
Technical staff	0.56 (0.27-1.17)	<b>1.93 (0.78-4.76)</b>
Support & maintenance	0.99 (0.61-1.60)	1.15 (0.59-2.22)

## New Law on Exposure of Citizens to the SHS (2010)

- **This study was performed before** the new Law was adopted in the Parliament of Serbia to facilitate the enforcement and acceptance, and to minimize the resistance against the new Law
- The new Law has a total smoking ban in all health-care institutions including backyards, front doors, etc.



## Conclusions

- There is a **high percentage** of smokers in HIs in Serbia
- Only a half of all employees stated that smoking is a problem at work, and only 1/3 would like to quit smoking
- Although physicians smoke less, other employees **smoke more than a national average** and can substantially influence smoking policy and practice in HIs
- Self-estimated health was worse and sick-leave more frequent among **former smokers**, indicated that the main reason for quitting is actual ill health



## Conclusions

- Overall **compliance** with the Law is good
- **When it was introduced in November 11, 2010 77%** of adults in Serbia support it, 80% after 3 months, 84% after 6 months and 80% after a year
- However, we noticed some **infringements** of the Law in HIs– we work together with the inspectors to overcome them



## Conclusions

- **Booklet** about tobacco control and all relevant data was published and distributed to all HIs in Serbia
- **Training courses** for teams in smoking cessation - intensified



## Conclusions

- Information leaflets were also produced and published on how to better implement the new Law in HIs ([www.zdravije.gov.rs/](http://www.zdravije.gov.rs/))



Thank you!

