

## RESEARCH PAPER

# Tobacco use and cessation counselling: Global Health Professionals Survey Pilot Study, 10 countries, 2005

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One of the strategies to reduce the number of smoking-related deaths is to encourage the involvement of health professionals in tobacco-use prevention and cessation counselling. The World Health Organization, the US Centers for Disease Control and Prevention, and the Canadian Public Health Association developed the Global Health Professionals Survey (GHPS) to collect data on tobacco use and cessation counselling among health-profession students in all WHO member states. This report summarises findings from the GHPS Pilot Study, which consisted of 16 surveys conducted in 10 countries among third year students in four health-profession disciplines (dentistry, medicine, nursing, and pharmacy) during the first quarter of 2005. The findings indicated that current cigarette smoking among these students was higher than 20% in seven of the 10 countries surveyed. Nevertheless, 87–99% of the students surveyed believed they should have a role in counselling patients to quit smoking; only 5–37% of these third-year students had actually received formal training in how to conduct such counselling. Schools for health professionals, public health organisations, and education officials should work together to design and implement training in smoking cessation counselling for all health-profession students.

Tobacco use is projected to cause nearly 450 million deaths worldwide during the next 50 years.<sup>1</sup> Health professionals can have a critical role in reducing tobacco use; even brief and simple advice from health professionals can substantially increase smoking cessation rates.<sup>2–4</sup> Therefore, one of the strategies to reduce the number of smoking-related deaths is to encourage the involvement of health professionals in tobacco-use prevention and cessation counselling. Studies have collected information from health-profession students in various countries about their tobacco use and training as cessation counsellors<sup>5–8</sup>; however, no study has collected this information cross-nationally by using a consistent survey methodology. The World Health Organization (WHO), the US Centers for Disease Control and Prevention, and the Canadian Public Health Association developed the Global Health Professionals Survey (GHPS) to collect data on tobacco use and cessation counselling among health-profession students in all WHO Member States. This report summarises findings from the GHPS Pilot Study.

## METHOD

GHPS is part of the Global Tobacco Surveillance System (GTSS), which collects data through three surveys: the Global Youth Tobacco Survey (GYTS), the Global School Personnel Survey (GSPS), and GHPS. GHPS is a school-based survey of third-year students pursuing advanced degrees in dentistry, medicine, nursing, or pharmacy. GHPS uses a core

questionnaire on demographics, prevalence of cigarette smoking and other tobacco use, knowledge and attitudes about tobacco use, exposure to secondhand smoke, desire for smoking cessation, and training received regarding patient counselling on smoking-cessation techniques. GHPS has a standardised methodology for selecting participating schools and classes and uniform data processing procedures. The GHPS Pilot Study surveyed third-year students from Albania (dental (57), medical (138), nursing (356), and pharmacy (56)), Argentina (Buenos Aires) (medical (348)), Bangladesh (dental (205)), Croatia (medical (404)), Egypt (medical (1770)), Federation of Bosnia and Herzegovina (nursing (874)), India (dental (1499)), the Philippines (pharmacy (1045)), the Republic of Serbia (Belgrade) (dental (160), medical (218), and pharmacy (118)), and Uganda (medical (162) and nursing (444)).

Depending on the number of schools and third-year students in participating countries and disciplines and the resources available, the 16 GHPS studies included a census of students and schools or a sample of schools and a sample of students. Albania, Argentina (Buenos Aires), Bangladesh, Croatia, Egypt, the Republic of Serbia (Belgrade), and Uganda conducted a census of schools and third-year students. The Federation of Bosnia and Herzegovina, India, and the Philippines drew a two-stage sample of schools and classes of third year students in selected schools. For each of the 16 surveys, the school response rate was 100%, and the third-year student response rate ranged from 65.6% (Republic of Serbia (Belgrade) (pharmacy students)) to 100% (Albania (pharmacy students)). GHPS was conducted in schools during regular class sessions. GHPS follows an anonymous, self-administered format for data collection, and the questionnaires were translated into local languages as needed. Current cigarette smokers were defined as those who reported that they currently smoke daily or occasionally. Differences in rates for these indicators were considered statistically significant at the  $p < 0.05$  level.

## RESULTS

Current cigarette smoking among third-year health profession students was most prevalent in Albania, Argentina (Buenos Aires), Bangladesh, Croatia, Federation of Bosnia and Herzegovina, the Philippines, and the Republic of Serbia (Belgrade), with rates ranging from 18.1% (Republic of Serbia (Belgrade) medical students) to 47.1% (Albania pharmacy students) (table 1); the lowest current smoking prevalences were reported among Ugandan nursing (0.5%) and medical (2.8%) students, Egyptian medical students (7.9%), and Indian dental students (9.6%). Male students were significantly more likely than female students to currently smoke cigarettes in Albania, Bangladesh, Egypt,

**Abbreviations:** FCTC, Framework Convention for Tobacco Control; GHPS, Global Health Professionals Survey; GSPS, Global School Personnel Survey; GTSS, Global Tobacco Surveillance System; GYTS, Global Youth Tobacco Survey; WHO, World Health Organization

**Table 1** Third-year health profession students' prevalence of current cigarette smoking, by sex, country, and discipline—Global Health Professionals Survey Pilot Study, 10 countries, 2005

	n*	Total (%) (95% CI)	n*	Male (%) (95% CI)	n*	Female (%) (95% CI)
Albania						
Dental	41	30.1 (23.2 to 38.1)	12	38.0 (24.9 to 53.1)	29	27.1 (19.4 to 36.6)
Medical	114	43.3 (40.7 to 45.9)	28	65.1 (59.8 to 69.9)	85	35.7 (32.8 to 38.7)
Nursing	271	41.5 (37.9 to 45.1)	63	57.5 (49.8 to 64.8)	208	36.4 (32.5 to 40.5)
Pharmacy	40	47.1 (42.8 to 51.4)	12	65.8 (58.0 to 72.9)	28	38.9 (34.1 to 44.0)
Argentina (Buenos Aires)						
Medical	296	35.5 (33.6 to 37.4)	118	33.4 (30.4 to 36.4)	177	36.5 (34.1 to 39.1)
Bangladesh						
Dental	192	22.2 (18.2 to 26.8)	84	46.7 (39.0 to 54.7)	108	3.3 (1.6 to 6.7)
Croatia						
Medical	377	36.6 (34.1 to 39.2)	120	35.9 (31.5 to 40.4)	256	37.1 (34.1 to 40.3)
Egypt						
Medical	1749	7.9 (5.7 to 10.7)	993	12.9 (9.9 to 16.5)	756	1.2 (0.5 to 3.0)
Federation of Bosnia and Herzegovina						
Nursing	791	33.0 (28.8 to 37.6)	212	27.3 (21.1 to 34.5)	576	34.8 (29.8 to 40.2)
India						
Dental	1266	9.6 (6.7 to 13.6)	719	14.9 (10.7 to 20.4)	541	2.4 (0.8 to 6.9)
Philippines						
Pharmacy	595	22.1 (16.8 to 28.5)	119	37.8 (26.5 to 50.5)	469	18.1 (12.8 to 24.9)
Republic of Serbia (Belgrade)						
Dental	152	42.5 (39.1 to 45.9)	42	30.2 (24.6 to 36.4)	110	47.2 (43.2 to 51.2)
Medical	187	18.1 (15.9 to 20.7)	54	23.8 (19.3 to 29.1)	133	15.9 (13.3 to 18.8)
Pharmacy	113	20.4 (16.2 to 25.2)	24	16.7 (9.5 to 27.7)	89	21.3 (16.6 to 26.9)
Uganda						
Medical	151	2.8 (1.8 to 4.2)	101	4.1 (2.7 to 6.3)	49	0.0
Nursing	378	0.5 (0.3 to 0.9)	60	3.3 (1.9 to 5.6)	316	0.0

\*The reported n is the unweighted number of cases in the denominator. The male and female n's may not add to the total n due to non-response on the question that determines gender.

Current smokers were defined as those who reported that they currently smoke "daily" or "occasionally".

CI, confidence interval.

**Table 2** Third-year health profession students' attitudes toward and training in smoking-cessation counselling, by country and discipline—Global Health Professionals Survey Pilot Study, 10 Countries, 2005

	n*	Believe health professionals should give advice or information about smoking cessation to patients (%) (95% CI)	n*	Received formal training in cessation counselling (%) (95% CI)	n*	Believe health professionals should be trained in cessation techniques (%) (95% CI)
Albania						
Dental	51	95.6 (91.2 to 97.9)	53	14.2 (9.7 to 20.2)	53	97.9 (94.2 to 99.3)
Medical	135	95.0 (93.8 to 95.9)	133	10.3 (9.0 to 11.9)	135	97.1 (96.2 to 97.8)
Nursing	331	89.4 (87.2 to 91.4)	338	22.6 (16.8 to 24.3)	336	96.7 (95.3 to 97.7)
Pharmacy	52	86.6 (83.9 to 89.0)	52	7.7 (5.9 to 10.0)	52	98.1 (96.8 to 98.9)
Argentina (Buenos Aires)						
Medical	304	98.8 (98.3 to 99.1)	305	5.2 (4.4 to 6.1)	305	91.3 (90.1 to 92.3)
Bangladesh						
Dental	204	98.1 (96.1 to 99.1)	204	24.9 (20.7 to 29.5)	202	97.5 (95.4 to 98.7)
Croatia						
Medical	393	97.7 (96.8 to 98.4)	392	14.5 (12.8 to 16.4)	395	71.7 (69.3 to 73.9)
Egypt						
Medical	1767	91.1 (89.6 to 92.4)	1770	20.9 (18.4 to 23.6)	1766	92.5 (90.4 to 94.2)
Federation of Bosnia and Herzegovina						
Nursing	NA	NA	851	28.6 (23.7 to 34.0)	851	90.3 (87.8 to 92.3)
India						
Dental	1335	99.8 (99.8 to 99.9)	1332	10.5 (5.8 to 18.1)	1339	99.0 (97.9 to 99.6)
Philippines						
Pharmacy	632	99.3 (98.3 to 99.7)	629	36.6 (30.6 to 43.1)	631	93.9 (91.7 to 95.5)
Republic of Serbia (Belgrade)						
Dental	NA	NA	156	20.7 (18.1 to 23.6)	157	91.5 (89.5 to 93.2)
Medical	NA	NA	190	32.6 (29.8 to 35.6)	189	95.9 (94.5 to 97.0)
Pharmacy	NA	NA	116	9.5 (6.7 to 13.2)	116	93.1 (89.7 to 95.9)
Uganda						
Medical	153	98.8 (97.7 to 99.3)	154	15.9 (13.5 to 18.6)	154	97.3 (95.9 to 98.2)
Nursing	394	98.4 (97.8 to 98.9)	391	35.1 (33.2 to 37.0)	388	97.1 (96.3 to 97.7)

\*The reported n is the unweighted number of cases in the denominator.

CI, confidence interval; NA, question not asked.

India, Philippines, Republic of Serbia (Belgrade) (medical students only), and Uganda. Only among Serbian dental students were females significantly more likely than males to currently smoke cigarettes.

The majority of third-year students (range 86.6–99.8%) in all four health disciplines and in all 10 countries believed health professionals should advise patients about smoking cessation (table 2). However, the percentage of third-year

students who had received formal training in tobacco cessation counselling ranged from 5.2% among medical students in Argentina (Buenos Aires) to 36.6% among pharmacy students in the Philippines. Formal training can include classroom lectures, special seminars, clinical practicum, and other problem-based learning opportunities, but training of health professionals varies among countries and across disciplines within countries.

Data on receipt of formal cessation-counselling training among third-year students of different disciplines within the same country were available for Albania, the Republic of Serbia (Belgrade), and Uganda. In Albania, nursing students (22.6%) were significantly more likely than medical students (10.3%) or pharmacy students (7.7%) to have received such training but not significantly more likely than dental students (14.2%). In the Republic of Serbia (Belgrade), medical (32.6%) and dental (20.7%) students were significantly more likely than pharmacy students (9.5%) to have received cessation training. In Uganda, nursing students (35.1%) were more than twice as likely as medical students (15.9%) to have received training. More than 90% of third-year students (range 90.3–99.0%) in every survey except medical students in Croatia (71.7%) thought health-profession students should receive cessation counselling training as part of their normal curriculum.

## DISCUSSION

Health professionals who continue to smoke cigarettes send an inconsistent message to patients whom they counsel to quit smoking. Findings from the 2005 GHPS Pilot Study indicate that the current cigarette smoking rate among third-year health-profession students is higher than 20% in seven of the 10 countries surveyed. The public health community should target cigarette smoking among health profession students because this behaviour endangers their own health and reduces their ability to deliver effective anti-tobacco counselling to their patients. The findings in this report also indicate that most third-year health-profession students in the countries surveyed did not receive formal training in smoking cessation counselling, even though more than 90% of the same students want such training to be included in their formal curricula. All health-profession schools, public health organisations, and education officials should discourage tobacco use among health professionals and work together to design and implement programmes that train all health professionals in effective cessation-counselling techniques.

The WHO Framework Convention for Tobacco Control (WHO FCTC), adopted by the 56th World Health Assembly in May 2003, is the first international public health treaty on tobacco control.<sup>9</sup> In addition to providing a blueprint for a global response to the pandemic of tobacco-induced death and disease, WHO FCTC calls for countries to use standard methods and procedures for surveillance. GHPS provides countries with a way to measure tobacco use among their third year health-profession students, the desire for cessation among students who smoke, the extent to which students are being trained to provide tobacco-cessation counselling, and the willingness of students to use such training to reduce tobacco use among their patients. The GHPS Pilot Study proved successful in terms of school and student participation, fieldwork procedures, data collection, cost, and reliability of data. In light of these successes, GHPS will be expanded during academic year 2005–06 to include approximately 40 additional countries. The goal of WHO, CDC, and CPHA is to gather data from all four disciplines in as many of the 192 WHO member states by the end of academic year 2008.

## What this paper adds

Health professionals can have a critical role in reducing tobacco use; even brief and simple advice from health professionals can substantially increase smoking cessation rates. Therefore, one of the strategies to reduce the number of smoking-related deaths is to encourage the involvement of health professionals in tobacco-use prevention and cessation counselling.

The findings in this report are subject to at least four limitations. First, because GHPS respondents are third-year health profession students who have not had substantial interaction with patients, survey results should not be extrapolated to account for practising health professionals in any of the countries. Second, the GHPS did not survey students in all health professions whose members could provide patients with cessation counselling (for example, chiropractors, traditional healers, psychologists, and counsellors). Third, because adult smoking rates across countries are not collected by using a standardised and consistent methodology, comparison of the prevalence in this report with the prevalence in the general adult populations is not possible. Finally, a reliability study of the GHPS core questionnaire items has not been undertaken but is required before full expansion of the survey.

The theme of WHO's World No Tobacco Day (WNTD) 2005 was the role of health professionals in tobacco control. Organisations of health professionals are aware of members' potential role and responsibility in tobacco control, and several have already initiated specific activities. For example, the Doctors' Manifesto for Tobacco Control was launched in 2002 with the support of medical associations worldwide.<sup>10</sup> In addition, several individual associations have adopted their own codes regarding tobacco control, such as the provision in the Pharmacists against Tobacco code of practice that bans smoking in pharmacies.

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