

Smoking Prevalence and Attitudes toward Tobacco among Student and Staff Nurses in Niigata, Japan

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SEKIJIMA, K., SEKI, N. and SUZUKI, H. *Smoking Prevalence and Attitudes toward Tobacco among Student and Staff Nurses in Niigata, Japan.* Tohoku J. Exp. Med., 2005, **206** (3), 187-194 — The present study investigated smoking prevalence and attitudes toward smoking in student and staff nurses, and activities to promote tobacco intervention by staff nurses. A total of 743 student nurses in 2 colleges and one university and 490 staff nurses in the university hospital in Niigata, Japan participated in the study and filled in self-administered anonymous questionnaires focused on smoking habits, attitudes toward smoking, and activities to promote tobacco intervention. The smoking prevalence among student nurses was 6% and increased with the year of study, whereas that of among staff nurses was 16% and increased by employment up to 3-5 years. Almost half of the student nurse smokers started the habit before admission to higher education facilities, and more than half of staff smokers also started smoking in their school years, in high school or college. Nicotine dependence, as defined by over 11 cigarettes per day and the first cigarette within 30 min after getting up, was high in smokers who started smoking before admission to college or university, but not in those who took up the habit thereafter. Thirty-six percent of student nurses and 25% of staff nurses agreed with the statement that “nurses should not smoke.” Only 12% of staff nurses were involved in anti-tobacco interventions routinely, partly due to lack of broad knowledge and the necessary skills. Greater efforts are needed as a high priority to educate student and staff nurses systematically and comprehensively about the range of tobacco interventions available in Japan. ——— nurses; student nurses; smoking; tobacco intervention; health education.

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Tobacco use is a medical addictive condition. Once addicted, most smokers find it difficult to quit, even when they develop smoking related diseases. In 2002, smoking rates for all adult men and women were 43.3 and 10.2%, respectively (Ministry of Health, Labour and Welfare 2003). Japan is in the midst of a rapid increase in tobac-

co-related disease mortality (Peto et al. 1994), and the National Cancer Center of Japan has estimated that lung cancer mortality rates among Japanese men will be more than double in the period from 2001 to 2030 (Kaneko et al. 2003). In the overall population the trend for smoking rates is downward, but there is a problem in that rates for

Received December 15, 2004; revision accepted for publication April 8, 2005.

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young women have risen to about 15% among those in their late teens and early 20's, and one in four teenagers is a smoker (Watt 2003).

We thus need to dynamically promote smoking cessation activities in Japan. The national synthetic policy "health Japan 21" includes tobacco control, and a Health Promotion Law preventing from passive smoking was implemented in 2003, but smoking prevention is a major task, and medical professionals, especially nurses, have a major role to play in helping people to quit (Rice and Stead 2003; Rigotti et al. 2003). A growing number of studies have supported the effectiveness of nurses for smoking cessation interventions in general (Hollis et al. 1993; Taylor et al. 1996; Tonnesen et al. 1996) and with adequate training their smoking cessation counseling is widely recommended (Miller et al. 1997; Quist-Paulsen and Gallefos 2003).

The smoking prevalence among nurses is higher than for women in the general population in Japan (Adriaanse et al. 1991; Ohida et al. 1999), but is lower in Niigata than in other areas in Japan (Japanese Nursing Association 2002, Niigata Nursing Association 2004). The prevalence of smoking among students in vocational school of nursing was higher than that among students in nursing colleges/universities, and their prevalence increased with the year of study (Ohida et al. 2001). In Japan, nurse's academic background is changing dramatically, and total number of students in colleges/universities increase. However, so far few surveys on smoking prevalence and attitudes towards tobacco among these students have been conducted in Japan (Ohida et al. 2001). Furthermore, student and staff nurses did not consistently receive adequate education for generation of skills related to tobacco intervention in the nursing schools (Sekijima et al. 2001; Kitajima et al. 2002).

Our purpose in the present study was to investigate smoking prevalence and attitudes towards smoking among student and staff nurses, as well as their participation in activities to promote anti-tobacco interventions.

MATERIALS AND METHODS

The study was conducted from June to July 2001 at two colleges and a university for the student nurse survey, and from September to October 2002 at the university hospital for the staff nurse survey in Niigata Prefecture, Japan. One college had a three-year curriculum, and the other and the university were changing to offer four-year courses. Their third-year students were the final classes at the time of this survey.

Before starting, papers indicating the purpose of the study and the assurance of no disadvantage in case of non-participation were distributed to all potential participants. A descriptive designed quantitative approach by self-administered anonymous questionnaire was applied.

The questionnaire consisted of 16 items for student nurses and of 15 items for staff nurses; personal and professional background, smoking status, attitudes towards tobacco, and activities for tobacco interventions were covered. Current smoking status was classified into four categories: daily smokers, occasional smokers, ex-smokers who had quit at least one year before the survey, and never smokers. Daily smokers and occasional smokers were classified as current smokers. Questions to determine nicotine dependence were "number of cigarettes per day?" and "time to the first cigarette of the day?" (Heatherton et al. 1989, 1991). Questions to identify the motivational phase for quitting smoking were used to divide those with a desire to stop smoking into "pre-contemplation," "contemplation," and "preparation" categories (DiClemente et al. 1991; Prochaska et al. 1992).

Questionnaires were delivered to student nurses through the school affairs unit in charge and to staff nurses through each nursing unit. They were enclosed in envelopes for privacy of participants and reliability of collection of their answers.

Statistical analysis was performed with an independent *t*-test for continuous variables and univariate chi-square or Cochran-Armitage tests for categorical variables. Statistical significance was concluded at $p < 0.05$.

RESULTS

Age and smoking status of participants

A total of 716 (96.4%) of 743 student nurses, and 469 (95.7%) of 490 staff nurses agreed to participate. The research staffs were all women, because nurses are mostly women. Finally fully completed questionnaires were received from 690 student nurses and 432 staff nurses (mean ages

TABLE 1. Age and smoking status of student and staff nurses

	Number of nurses	Mean age (year)		Smoking status							
		s.D.		Smoker ^a		Ex-smoker		Never smoker		Not identified	
		Number	%	Number	%	Number	%	Number	%		
Student nurses											
Year											
1st year	250	18.7	(1.89)	11	4.4	5	2.3	234	93.6	0	0.0
2nd year	222	19.7	(1.28)	14	6.3	8	3.6	199	89.6	1	0.5
3rd year	218	20.8	(1.14)	18	8.3	9	4.1	187	85.8	4	1.8
Total	690	19.7	(1.71)	43	6.2	22	3.2	620	89.9	5	0.7
Staff nurses											
Employment years											
1 - 2 year	55	22.6	(1.25)	6	10.9	1	1.8	48	87.3	0	0.0
3 - 5 year	89	24.9	(1.21)	15	16.9	7	7.8	67	75.3	0	0.0
6 - 10 year	67	28.9	(1.93)	13	19.4	5	7.5	49	73.1	0	0.0
10 year <	218	43.7	(8.00)	35	16.1	16	7.3	157	72.0	10	4.6
not identify	3	50.5	(7.78)	0	0	0	0.0	3	100.0	0	0.0
Total	432	34.8	(10.93)	69	16.0	29	6.7	324	75.0	10	2.3

Student nurses studied at one university and two colleges by year. Staff nurses working in one university hospital.

^a Smoker includes daily and occasional smokers (% = prevalence of smoking).

19.7 and 34.8 years, respectively, Table 1).

Of the 690 student nurses, 43 (6.2%) were smokers, and the smoking prevalence increased with the year of study, from 4.4% in the first-year to 8.3% in the third-year (Table 1). The prevalences were 6.2%, 3.6%, and 7.9%, in A, B, and C institutes, respectively (Table 2). The prevalence in institute A increased significantly by year ($p < 0.05$), but not that in institute B. In institute C, the prevalence in first-year students was higher than in the others, but not significantly.

Of 432 staff nurses, 69 (16.0%) were smokers, and the prevalence increased moderately from 1-2 years to 3-5 years hospital employment (Table 1).

Nicotine dependency and motivational phase of quitting smoking

Of 41 student nurse smokers, 19 (44.2%) started smoking before admission to college or university (Table 3). These included seven

(87.5%) of 8 student nurse smokers who smoked over 11 cigarettes per day and 9 (90%) of 10 who smoked the first cigarette within 30 min of getting up. Almost half of the smokers were in contemplation stage of quitting.

Of 66 staff nurse smokers, 40 (58.0%) started smoking in their years of schooling, including high school, nursing school, and college/university (Table 3), these accounting for 21 (75.0%) of 28 who smoked over 11 cigarettes per day and 19 (61.3%) of 31 who smoked the first cigarette within 30 min after getting up. Almost all smokers, regardless of the age of starting the habit were contemplating quitting.

Views and attitudes toward smoking

Agreement with "nurses should not smoke" was professed by 250 (36.1%) of 690 student nurses and by 107 (24.9%) of 429 staff nurses (Table 4), and was independent of the years of study or employment. Among non-smoker and

TABLE 2. Prevalence of smoking among student nurses by year in A university, B and C colleges

Institute	Year	Number of student nurses	Number of smoker	%
A	1st-year	76	1	1.3
	2nd-year	72	5	6.9
	3rd-year	70	8	11.4
	Total	218	14	6.4*
B	1st-year	80	1	1.3
	2nd-year	50	2	4.0
	3rd-year	64	4	6.3
	Total	194	7	3.6
C	1st-year	94	9	9.6
	2nd-year	100	7	7.0
	3rd-year	84	6	7.2
	Total	278	22	7.9

Differences were analyzed for significance with the Cochran-Armtage test by year in each institute.

* $p < 0.05$.

TABLE 3. Nicotine dependency, stage of change and motivational phase of quitting smoking by time of starting

	Student nurses ^a						Staff nurses ^a					
	Before admission		After admission		Total		School years		After starting work		Total	
	19	100.0	22	100.0	41	100.0	40	100.0	26	100.0	66	100.0
No. of cigarettes per day												
11 <	7	36.8	1	4.5	8	19.5*	21	52.5	7	26.9	28	42.4*
1 - 10	12	63.2	21	95.5	33	80.5	19	47.5	19	73.1	38	57.6
No answer	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
The time of the first smoke of the day												
> 30 min	9	47.4	1	4.5	10	24.4*	19	47.5	12	46.2	31	47.0 ns
30 min <	10	52.6	20	90.9	30	73.2	20	50.0	13	50.0	33	50.0
No answer	0	0.0	1	4.5	1	2.4	1	2.5	1	6.8	2	3.0
Motivational phase of quitting smoking												
Preparation	5	26.3	6	27.3	11	26.8 ns	2	5.0	4	15.4	6	9.1 ns
Contemplation	8	42.1	13	59.1	21	51.2	33	82.5	17	65.4	50	75.8
Pre-contemplation	6	31.6	3	13.6	9	22.0	5	12.5	5	19.2	10	15.2
No answer	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Compared for time of starting with each nurse, persons who did not write answers being excluded (chi-square, $p < 0.05$).

* $p < 0.05$; ns, not significant.

^a 2 student nurses and 3 staff nurses whom smoking histories were not identified were excluded.

TABLE 4. Agreement with "nurse should not smoke" in student nurses by year and staff nurses by employment years

	Number of nurses	No-Smoker			Smoker			
		<i>n</i> ^a	Number	%	<i>n</i> ^a	Number	%	
Student nurses	School year							
	1st year	250	239	102	42.7	11	1	9.1 *
	2nd year	222	207	70	33.8	14	1	7.1 *
	3rd year	218	196	74	37.8	18	2	11.1 *
	All	690	642	246	38.3	43	4	9.3 **
Staff nurses ^b	Employment years							
	1 - 2 years	55	49	14	28.6	6	0	0.0 ^{ns}
	3 - 5 years	89	74	17	23.0	15	0	0.0 *
	6 - 10 years	67	54	14	25.9	13	0	0.0 *
	10 years ~	218	173	57	32.9	35	4	11.4 **
	All	429	353	103	29.2	69	4	5.8 **

^a Number of nurses who were categorized in each smoking status.

^b 3 staff nurses for whom term of working as a nurse could not be determined were excluded.

* $p < 0.05$; ** $p < 0.01$; ns, not significant (compared by school year in student nurses and by employment year in staff nurses).

smoker of student and these of staff nurses, agreement with "nurses should not smoke" was higher in student nurses (38.3%, 9.3%, respectively) than in staff nurses (29.2%, 5.8%, respectively). However, they did not differ with years of study or employment.

Experience of tobacco interventions among staff nurses

Out of 432 staff nurses, only 12 (2.8%) considered they had sufficient knowledge about tobacco interventions, and 257 (59.5%) had received "no information." Only 51 (12.1%) had been actively involved in tobacco interventions with patients who smoked.

DISCUSSION

In the present study, we found important time periods for start smoking among student and staff nurses, such as before admission and during their studies for nurses, and at hospital for staff nurses. Three interesting findings in line with the above have been repeated in the literature.

Firstly, approximately 40% of student nurse

smoker were found to start smoking before admission to nursing school, generally in high school or junior high school (Osaki and Minowa 1996). Nicotine dependence as endorsed by consumption of over 11 cigarettes per day and/or the first cigarette within 30 min after getting up was higher in student nurse smokers who started smoking before admission to their colleges or university. Furthermore, approximately 60% of staff nurse smokers had started smoking during their schooling, this again being associated with nicotine dependence, as in other reports (Reeve et al. 1996). Thus, our observations support the view that tobacco related health education in high schools or for younger generation in general is essential for prevention of smoking and smoking cessation.

The second point was that smoking prevalence among student nurses increased by years of study, again in line with as other reports in Japan (Ohida et al. 2001; Kitajima et al. 2002), and with year of employment among staff nurses. In other countries, prevalence has demonstrated decrease with the year of schooling due to tobacco educa-

tion (Rowe and Clark 2000). We can therefore expect important with appropriate interventions and implementation of the Health Promotion Law for preventing passive exposure in 2003. Among non-smoker and smoker student and staff nurses, the majority was not agreement with “nurses should not smoke.” The findings lead us to believe that education to student nurses and staff nurses about tobacco use and interventions for tobacco cessation is warranted as an important part of school and job training curricula.

The third point was that smoking prevalence among student nurses in institute A increased significantly by year, but not that in institute B and C. Institute B and C prohibited to smoke in the building, but not institute A. Therefore, we supported the view that regulation to smoke in the building or in a plot of ground of institute affect on the smoking prevalence among student nurses or other circumstances, as in other report (Wechsler et al. 2001).

The smoking prevalence among student nurses in the present study was 3.6% to 7.9%. Among staff nurses, it was 16.0%, and thus lower than the 24.5% reported for staff nurses (Japanese Nursing Association 2002) and the 32.0-34.0% reported for staff nurses who worked in university or national hospitals in Tokyo metropolitan area (Kitajima et al. 2002). In this study, the collection rate in student nurses was 96.4% (98.9%, 1st year; 98.7%, 2nd year; 91.3%, 3rd year), and 95.7% in staff nurses. Therefore, the high participation leads us to conclude that there is almost no room for considering of low participation of smoker (Ohida et al. 2000). Other studies also pointed out that the prevalence among staff nurses and adult women was lower in Niigata (18.3% and 5.8%, respectively, Niigata Nursing Association 2004) than in other areas in Japan. These findings may be related to the character of the people of a prefecture, but warrants examination.

Nurses are the largest professional group of health care workers, and frequently encounter patients/subjects who need advices for smoking cessation. However, in the present study, only 2.8% of staff nurses had sufficient knowledge about tobacco intervention, and approximately

60% of staff nurses considered they had “no information” or “insufficiency of skills related to intervention,” suggesting that Japanese staff nurses are less adequately trained in comparison with other countries (Sarna et al. 2000; McEwen and West 2001). However, a national report indicated that three-fourths of smokers are interested in smoking cessation (Ministry of Health and Welfare 1999), and increasing the number of health care professionals involved increases the likelihood of success (Raw et al. 1998; Fiore et al. 2000). Our finding provide direct support for the view that nurse’s knowledge and skills for tobacco intervention read to be improved in efforts to promote smoking cessation (Hollis et al. 1993; Taylor et al. 1996; Tonnesen et al. 1996). Systematical and comprehensive nursing educational programs related to tobacco are required in the USA (Ferry 1999; Spangler et al. 2002). We have several training programs for nurses in Japan, such as these for licensed nurses (two or three year programs), and for registered nurses (three or four year program). Their curricula that meet national recommendations should be developed and implemented immediately in all nursing schools in Japan. Of course, all members of health care teams, including nurses, must participate in assessment of tobacco use and interventions for cessation as part of their usual activities.

CONCLUSION

The prevalence of nursing staff smokers is higher than for student smokers, in both cases increase in the smoking rate occurs with years of schooling or employment. Starting earlier is associated with greater dependence. The small number of staff nurses involved in tobacco interventions, due to lack of sufficient knowledge and skills, further indicates that systematic and comprehensive nursing educational programs related to tobacco cessation are required immediately in Japan.

Acknowledgments

We wish to express our thanks to the subjects for their cooperation in the survey. This research was supported by a Grant-in-Aid for Scientific Re-

search (KAKENHI), from the Ministry of Education, Culture, Sports, Science and Technology, Japan (Research No. 15791263).

References

- Adriaanse, H., Reek, J.V., Zandvelt, L. & Evers, G. (1991) Nurses' smoking worldwide. a review of 73 surveys on nurses' tobacco consumption in 21 countries in the period 1959-1988. *Int. J. Nurs. Stud.*, **28**, 361-375.
- DiClemente, C., Prochaska, J., Fairhurst, S., Velicer, W., Velasquez, M. & Rossi, J. (1991) The process of smoking cessation: an analysis of precontemplation, contemplation, and preparation stages of change. *J. Consult. Clin. Psycho.*, **59**, 295-304.
- Ferry, L.H., Grissino, L.M. & Runfola, P.S. (1999) Tobacco dependence curricula in US undergraduate medical education. *JAMA*, **282**, 825-829.
- Fiore, M.C., Baily, W.V., Cohen, S.J., Dorfman, S.F., Goldstein, M.G., Gritz, E.R., Heyman, R.B., Jean, C.R., Kottke, T.E., Lando, H.A., Mecklenburg, R.E., Mullen, P.D., Nett, L.M., Robinson, L., Stitzer, M.L., Tommasello, A.C., Villejo, L. & Wewers, M.E. (2000) Treating tobacco use and dependence. *US Department of Health and Human Services, Public Health Service. Clinical Practice Guideline*, Rockville Maryland.
- Heatherton, T., Kozlowski, L., Frecker, R., Rickert, W. & Robinson, J. (1989) Measuring the heaviness of smoking: using self-reported time to the first cigarette of the day and number of cigarettes smoked per day. *Br. J. Addict.*, **84**, 791-800.
- Heatherton, T., Kozlowski, L., Frecker, R. & Fagerstrom, K. (1991) The Fagerstrom test for nicotine dependence: a revision of the Fagerstrom Tolerance.
- Hollis, J.F., Lichtenstein, E., Vogt, T.M., Stevens, V.J. & Biglan, A. (1993) Nurse-assisted counseling for smokers in primary care. *Ann. Intern. Med.*, **118**, 521-525.
- Japanese Nursing Association (2002) Nursing and Tobacco, 2002. Japanese Nursing Association, Tokyo, pp. 11-22. (in Japanese)
- Kaneko, S., Ishikawa, K.B., Yoshimi, I., Marugame, T., Hamashima, C., Kamo, K., Mizuno, S. & Sobue, T. (2003) Projection of lung cancer mortality in Japan. *Cancer Sci.*, **94**, 919-923.
- Kitajima, T., Ohida, T., Harano, S., Kamal, A.M.M., Takemura, S., Nozaki, N., Kawahara, K. & Minowa, M. (2002) Smoking behavior, initiating and cessation factors among Japanese nurses: a cohort study. *Public Health*, **116**, 347-352.
- McEwen, A. & West, R. (2001) Smoking cessation activities by general practitioners and practice nurses. *Tobacco Control*, **10**, 27-32.
- Miller, N.H., Smith, P.M., Debusk, R.F., Sobel, D.S. & Taylor, C.B. (1997) Smoking cessation in hospitalized patients: results of a randomized trial. *Arch. Intern. Med.*, **157**, 409-415.
- Ministry of Health, Labour and Welfare (1999) National survey on smoking and health, Tokyo, pp. 42-59. (in Japanese with English summary).
- Ministry of Health, Labour and Welfare (2003) National nutrition survey in Japan, 2002, Tokyo, pp. 222-225. (in Japanese with English summary)
- Niigata Nursing Association (2004) Nursing and Tobacco in Niigata Prefecture. Niigata Nursing Association, Niigata. (in Japanese)
- Ohida, T., Osaki, Y., Kobayashi, Y., Sekiyama, M. & Minowa, M. (1999) Smoking prevalence of female nurses in the national hospitals of Japan. *Tobacco Control*, **8**, 192-195.
- Ohida, T., Takemura, S., Nozaki, N., Kawahara, K., Minowa, M. & Mochizuki, Y. (2000) The validity of repeated mail surveys concerning smoking habits for Japanese physicians. *Nippon Koshu Eisei Zasshi*, **48**, 573-583. (in Japanese with English abstract)
- Ohida, T., Kamal, A.A.M., Takemura, S., Sone, T., Minowa, M. & Nozaki, S. (2001) Smoking behavior and related factors among Japanese nursing students: a cohort study. *Prev. Med.*, **32**, 341-347.
- Osaki, Y. & Minowa, M. (1996) School factors and smoking prevalence among high school students in Japan. *Environ. Health Prevent. Med.*, **1**, 107-113.
- Peto, R., Lopez, A.D., Boreham, J., Thun, M. & Heath, C. (1994) Mortality from smoking in developed countries, 1950-2000: indirect estimation from national vital statistics. Oxford University Press, Oxford.
- Prochaska, J., DiClemente, C. & Norcross, J. (1992) In search of how people change: applications to addictive behaviors. *Am. Psychol.*, **47**, 1102-1114.
- Quist-Paulsen, P. & Gallefoss, F. (2003) Randomized controlled trial of smoking cessation intervention after admission for coronary heart disease. *BMJ*, **327**, 1254-1257.
- Raw, M., McNeill, A. & West, R. (1998) Smoking cessation guidelines for health professionals: a guide to effective smoking cessation interventions for the health care system. *Thorax*, **53**, S1-S19.
- Reeve, K., Adams, J. & Kouzekanani, K. (1996) The nurse as exemplar: smoking status as a predictor of attitude toward smoking and smoking cessation. *Cancer Pract.*, **4**, 31-33.
- Rice, V.H. & Stead, L.F. (2003) Nursing interventions for smoking cessation. *Cochrane Database Syst. Rev. Library*, Issue 4.
- Rigotti, N.A., Munafo, M.R., Murphy, M.F.G. & Stead, L.F. (2003) Interventions for smoking cessation in hospitalized patients. *Cochrane Database Syst. Rev. Library*, Issue 3.
- Rowe, K. & Clark, J.M. (2000) The incidence of smoking amongst nurses: a review of the literature. *J. Adv. Nurs.*, **31**, 1046-1053.
- Sarna, L.P., Brown, J.K., Lillington, L., Rose, M., Wewers, M.E. & Brecht, M.L. (2000) Tobacco interventions by oncology nurses in clinical practice: report from a national survey. *Cancer*, **89**, 881-889.
- Sekijima, K., Seki, N. & Suzuki, H. (2001) Habits and attitudes to smoking among nursing students in University for registered nurse. *Bulletin of School of Health Sciences Faculty of Medicine Niigata University*, **7**, 321-325. (in Japanese with English abstract)
- Spangler, J.G., Gorge, G., Foley, K.L. & Crandall, S.J. (2002) Tobacco intervention training: current efforts and gaps in US medical schools. *JAMA*, **288**, 1102-1109.
- Taylor, C.B., Miller, H.N., Herman, S., Smith, P.M., Sobel, D., Fisher, L. & DeBusk, R.F. (1996) A nurse-managed smoking cessation program for hospitalized smokers. *Am. J. Public Health*, **86**, 1557-1560.
- Tonnesen, P., Mikkelsen, K., Markholst, C., Ibsen, A., Bendixen, M., Pedersen, L., fuursted, R., Hansen, L.H., Stensgaard, H., Schiotz, R., Petersen, T., Breman, L., Clementsen, P. & Evald, T. (1996) Nurse-conducted smoking cessation with minimal inter-vention in a lung clinic: a

- randomized controlled study. *Euro. Respir. J.*, **9**, 2351-2355.
- Watt, J. (2003) Japan steps up fight against tobacco industry. *Lancet*, **362**, 304.
- Wechsler, H., Kelly, K., Seibring, M., Kuo, M. & Rigotti, N. (2001) College smoking policies and smoking cessation programs: results of a survey of college health center directors. *J. Am. Coll. Health*, **49**, 205-212.
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