＜Letters＞

In-street Smoking in Crowded Streets near a Subway Station in Tokyo

Shinji NAKAHARA*, Masao ICHIKAWA and Susumu WAKAI

(Accepted for publication 26th Dec., 2003)

In Japan, in-street smoking has become prevalent, as most indoor public places are smoke-free today. Smokers may light cigarettes once they go out of smoke-free areas and into the street. As a result, there is now a potential for greater exposure to environmental tobacco smoke (ETS) during daily journeys to and from workplaces or schools, especially around stations in urban areas; and this issue also generates a widespread concern about cigarette-related burn injuries in crowded streets.

Chiyoda ward, a business center of Tokyo, thus, passed a by-law to ban smoking in crowded streets which went into effect on 1 October 2002.[1] Since no study has focused on smoking behavior in streets, we conducted a preliminary survey of in-street smoking in crowded streets near a smoke-free subway station.

We observed adults walking near Hongo-Sanchome subway station of the Marunouchi line in Tokyo in late April 2002. This station is situated near the University of Tokyo and in an office area near downtown; office employees, university students, and faculty staff use this station. We judged the following was adequate for a preliminary survey: companies of various sizes are in the area; the station has only one exit and is used by a sufficiently large number of people. We did not select stations in Chiyoda ward because news coverage of the legislation in February 2002 might have influenced the survey result.[2] In four spots, 50 m from the station, where most of the station users pass, we counted those holding lit cigarettes as in-street smokers. We excluded high-school students wearing school uniforms from the observation. In each spot, five-minute observations were conducted three times, each counting period separated by ten-minute intervals, starting at 8:30 in the morning and at 17:30 in the evening. We counted those who were walking away from the station in the morning and those who were walking towards the station in the evening. Smoking is prohibited in subways and subway stations.

Of the 1239 males observed in the morning, 156 were smoking (12.6%); of the 598 males observed in the evening, 38 (6.4%) were smoking. Of 894 females observed in the morning, one (0.1%) was smoking; of the 599 females observed in the evening, none were smoking.

A considerable proportion of people (mostly males) were smoking in crowded streets. Given that the smoking rate was 52% in males and 15% in females in 2001,[3] female smokers were less likely to smoke in the streets. This might be because male smokers smoke more and depend more heavily on smoking than females.[4]

Our survey suggests that people have a good chance of forced exposure to ETS in congested sidewalks where one cannot get out of range of the smoke. Even intermittent exposures to ETS cause sensory irritations among adults with asthma.[5] Further, lit cigarettes can cause serious eye injuries among children.[6] Even though such occurrences are rare, the possibility of these injuries as well as lit cigarettes held by walking smokers at children's face level can threaten our communal sense of safety, which is a basic need.

Further research using representative subjects randomly selected from wide areas is needed to conclude decisively the magnitude of ETS exposure in Tokyo as a whole, which might be no less severe than our observation. We mainly observed white-collar workers and college-educated people who have lower smoking rates.[7] We believe that the effectiveness of smoke-free-street legislation should be monitored and such efforts to control smoking in all public places, which has just started, should be supported.

Acknowledgements

We thank Ms. Shimoyama Ruriko, Mr. Tsutsumi Atsuro, Ms. Nomura Yuka, Ms. Kuramitsu Minako, and Mr. Shirayama Yoshihisa for data collection.

Funding support: none

Conflict of interests: none

References

1. Anonymous. Aruki-tabako kinshi, akushitsu-nara bakkinmo. Nippon Keizai Shimbun. June 25, 2002:39. (in Japanese)
2. Anonymous. Ward to ban outdoor smoking. Mainichi Daily News 2002 February 2002. Available from: URL: http://

Department of International Community Health Graduate School of Medicine The University of Tokyo 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan

＊ Correspondence to: Tel: 81-3-5841-3698 Fax: 81-3-5841-3422 Email: shinji@m.u-tokyo.ac.jp

mdn.mainichi.co.jp/news/archive/200202/23/20020223p2a00m0fp001000c.html (Accessed on 25 December 2003)

3. Japan Tobacco. 32.7% of Japanese adults are smokers, Japan Tobacco's annual survey found. JT News release No. 21 2001 October 25. Available from: URL: http://www.jti.co.jp/JTI_E/Release/01/r_22/r_22.html (Accessed on 25 December 2003)

4. Etter JF, Prokhorov AV, Perneger TV. Gender differences in the psychological determinants of cigarette smoking. Addiction 2002;97:733–743.

5. Eisner MD, Blanc PD. Environmental tobacco smoke exposure during travel among adults with asthma. Chest 2002; 122: 826–828.

6. Awan KJ. Smoking and eye injuries to toddlers. JAMA 1984; 251: 3080

7. Cavelaars AE, Kunst AE, Geurts JJ, Crialesi R, Grotvedt L, Helmert U, Lahelma E, et al. Educational differences in smoking: international comparison. BMJ 2000; 320: 1102–1107.