

## Current Status of Soil-transmitted Nematode Infection in China

YING-DAN CHEN, LIN-HUA TANG, AND LONG-QI XU

*National Institute of Parasitic Diseases, Chinese Center for Diseases Control and Prevention,  
Shanghai 200025, China*

**Objective** To carry out national surveys for ascertaining the current status and trends of soil-transmitted nematode infections in China, providing scientific basis for further developing control strategies. **Methods** In 1988-1992 (hereinafter abbreviated as "survey in 1990"), a stratified cluster random sampling method was used in the survey. In 2001-2004 (hereinafter abbreviated as "survey in 2003"), in order to compare with the survey in 1990, two-characteristic stratified cluster random sampling method was used and 687 investigation spots were sampled from the 2848 spots selected in the survey in 1990. Kato-Katz thick smear method was used to examine the eggs of soil-transmitted nematodes in fecal samples. **Results** The prevalence rates were 53.6% and 19.6% for soil-transmitted nematodes, 14.6% and 6.120% for hookworms, 44.6% and 12.7% for *Ascaris lumbricoides*, 17.4% and 4.630% for *Trichuris trichiura* in survey 1990 and survey 2003, respectively. The prevalence rates of soil-transmitted nematodes were higher in 13 provinces than the average level in China in the survey in 1990, and higher in 8 provinces than the average level in the survey in 2003. The prevalence of hookworms, *Ascaris lumbricoides*, *Trichuris trichiura* and the overall prevalence of soil-transmitted nematodes were higher in females than in males. It is estimated from the results of survey in 2003 that the number of persons with soil-transmitted nematode infections in the country is about 129 million, less than that in the survey in 1990. **Conclusion** The prevalence of soil-transmitted nematodes has declined considerably but is still relatively high in some provinces and autonomous regions. Control activities and socioeconomic development may have contributed to the decreased prevalence.

**Key words:** Soil-transmitted nematodes; Survey; Prevalence

### REFERENCES

- Xu L Q, Yu S H, Jiang Z X, *et al.* (1997). Intestinal nematode infection its on the health and intellect of children. *CJSH* **18**(4), 314-316.
- Stoll N R (1962). On endemic hookworm, where do we stand today? *Exp Parasit* **12**(4), 241.
- Shen L Y, Gan X X, Ding J Z (1996). *Ascaris lumbricoides* infection on the development of children. *CJPDC* **9**(2),125.
- Epidemiological Record (2006). April 2006 weekly. WHO, Geneva **81**, 145-164.
- Xu L Q, Yu S H, Xu S H (2000). Distribution and hazard of human body parasitic disease in China. Beijing: People's Medical Publishing House.
- Coordinating Office of the National Survey on the Important Human Parasitic Diseases (2005). A national survey on current status of the important parasitic diseases in human population. *Chin J Parasitol Parasit Dis* **23**(suppl 5), 332-334. (In Chinese)
- WHO (1987). Technical Report Series. Geneva, 749.
- Xu L Q, Yu S H, Jiang Z X, *et al.* (1995). Soil-transmitted Helminthiasis: Nationwide Survey in China. Bulletin of the World Health Organization **73**(4), 507-513.
- Yang G Y, Deng Y, Zhao X D (2006). A longitudinal study on ascaris infection in Henan Province. *J of Pathology Biology* **1** (5), 384-386.
- Sun F H, Qian Y X, Cao H J, *et al.* (2005) Province. J of Pathology Biology **1** (2005). Investigation on the epidemic situation of principal human parasitic diseases in Jiangsu Province. *Chin J Parasit Dis Con* **18**(6), 451-453.
- Xu L Q, Jiang Z X, Zhou C H (1997). To learn the advanced experience from Japan and Korea, and promote the prevention and control of intestinal parasites in China. *Chin J parasit dis contr* **10**(4), 241-245. (In Chinese)

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Correspondence should be addressed to: Ying-Dan CHEN, 207 Ruijin Er Rd., Shanghai 200025, China. Telephone: 86-21-64739075, E-mail: cyingdan@yahoo.com.cn

Biographical note of the first author: Ying-Dan CHEN female, born in 1967, associate professor, majoring in soil- and food-borne parasitic disease.

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