Agrarian residents in China are at increased risk of vector born rickettsioses, anaplasmosis and ehrlichiosis

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More and more epidemiological evidences indicated that the annual numbers of the emerging anaplasma and ehrlichia and the reemerging rickettsiae have steadily increased in China and the outbreaks of these zoonoses have been frequently reported in recent years. Of the traditional rickettsioses, scrub typhus, caused by Orientia tsutsugamushi (Ot), is one of the serious acute febrile illness in China. In some severe endemic areas of southern China, hundreds of farmers suffered scrub typhus in small villages each year. Similarly, murine typhus, caused by R. typhi is highly prevalent in some rural areas although the louse borne epidemiological typhus has been controlled in China. Noticeably, a big outbreak of murine typhus involved 76 patients occurred in drug detoxification program from Ruili city, Yunnan province in 2010. Besides R. sibirica and R. heilongjiangensis, emerging spotted fever group rickettsiae (SFGR) including R. raoulti, R. felis, R. massiliae and SFGR Hainan-1 were successively detected in China in recent years. Specifically, a highly seroprevalence of the SFGR Hainan-1 were identified in 46.1% of the adult population and 37.5% of the preschool children in the local areas. An active national investigation indicated that the emerging tick born E. chaffeensis and A. phagocytophilum were highly prevalent among agrarian residents, domestic animals and some wild animals. In particular, an unusual transmission of nosocomial cases of human granulocytic anaplasmosis occurred in Anhui Province in 2006. In China, the rickettsial diseases are the greatest challenge to public health. Notably, rural residents are not only at increased risk of these zoonoses but also these diseases are mostly under-recognized.

Biography
Dr Zhang-lijuan (MD, phD) is the Director of the Dept. of Rickettisology, National Institute for Communicable Disease Control and Prevention, China CDC. She is and PhD Candidate Supervisor and one of the members of the Committee of Natural Focus Disease, Ministry of Hygiene of People’s Republic of China, and a member of the National Zoonoses Committee. Her research interests are national surveillance of Rickettisoses, Anaplasmosis and Ehrlichiosis and molecular epidemiological and pathogenesis researches of rickettsiae, anaplasma and ehrlichia. She has published more than 60 papers on the surveillance of rickettisae and basic research on rickettisae agents.

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