

Etiology of Travelers' Diarrhea in Peace Corps
Volunteers During Their First
Five Weeks in Thailand

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OBJECTIVE : To determine the etiology of diarrheal disease in Peace Corps volunteers (PCVs) within their first five weeks in Thailand.

BACKGROUND : Previous studies of travelers' diarrhea in tropical countries have demonstrated that enterotoxigenic (tox^+) *E. coli* are the predominant pathogen (1-3). The antibiotic sensitivity patterns of this enteric pathogen has led some investigators to suggest the use of doxycycline as a prophylactic agent(4). One report, however, suggests that tox^+ *E. coli* in the Far East may, in fact, be frequently resistant to multiple antibiotics and that resistance is R-factor mediated (5). To further determine the etiology of travelers' diarrhea in Thailand, PCVs were studied during their first five weeks in country. Evidence of infection with the following enteric pathogens is being sought:

1. *Salmonella, Shigella, Vibrio*
2. *Plesiomonas shigelloides*
3. *Yersinia enterocolitica*
4. *Campylobacter*
5. Tox^+ *E. coli*
6. Ova and parasites
7. Rotavirus
8. Norwalk agent

The extent of resistance of the imported and acquired fecal flora is being determined.

METHODS : Thirty-five PCVs were interviewed within four hours of arrival in Thailand. Serum and stool specimens were collected within the next 24 hours (four specimens were cultured in Vermont and kindly examined by Dr. Samuel

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formal, WRAIR). Each PCV was interviewed daily for the next five weeks, while they remained in U'thong, and 1-3 stool specimens were cultured from each individual during his or her episode(s) of diarrhea. Stools were streaked immediately on to selective media, frozen in dry ice, and emulsified in 10 per cent formalin and PVA. After five and ten weeks in Thailand, additional stool specimens were collected.

RESULTS : Eighty-three per cent (29/35) of the PCV group experienced diarrhea during the study period. The mean number of episodes (an episode as defined as diarrhea separated by two asymptomatic days) was 2.4, median 2.5, range 0-5. Assays are currently in progress. Diarrhea lasted for a mean of 2.6, median 2.8, range 1-12 days. One patient required hospitalization while two others were confined to their rooms for greater than 48 hours.

The general plan is to determine the etiology of diarrhea in this PCV group "Thai 66" and the extent of resistance of their enteropathogens. Further attempts to prevent diarrhea in the next PCV group "Thai 67" due to arrive in March 1980 will be determined after the data are completed. Various modes of prophylaxis, antibiotics, pectin, chlpromazine, will be evaluated in future PCV groups.

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