## Nicaraguan Experiences in Vector Control and Interinstitutional Cooperation after Hurricane Mitch

Dr. Juan José Amador

Health Impact and Risk Factors of Diarrheal Epidemics in the 1998 Bangladesh Floods

Osamu Kunii, MD, MPH, PhD;<sup>1</sup> Satos Fi Nakamura, MPH, PhD;<sup>2</sup> Razzak Abdur, BFA<sup>3</sup>

1) Graduate School of Medicine, University of Tokyo, Tokyo, JAPAN; 2) International Medical Center of Japan; 3) Bangladesh Friendship Hospital, Gulshan, Dhaka, BANGLADESH

In 1998, the worst flood disaster in Bangladesh ravaged about 60% of its land and affected over 30 million people. Diarrhea affected 400,000 people and resulted in >500 deaths. To assess its health impact and factors associated with diarrhea episodes, we interviewed 517 people in two of the affected districts in early October 1998.

Among respondents, 98.3% developed some kinds of health problems and perceived that their general health condition had become "extremely worse" (16.9%) or "worse" (64.3%). Prevalent episodes consisted of fever (63.6%), respiratory problems (47.0%), and/or diarrhea (44.3%). However, 22.3% of those with diarrheal episodes felt the problem was serious enough to require medical help. Although 50.1% needed medical help, only 26.5% actually sought it. Factors associated with developing or worsening diarrhea were: 1) large number of persons in the family ( $\rho$  <0.05); 2) poor economic status ( $\rho$  <0.001); 3) no distribution of water purification tablets ( $\rho$  <0.001); 4) the type of water storage vessels (p < 0.001); 5) not putting a lid on the vessel ( $\phi$  <0.001); 6) no latrine use ( $\phi$ <0.001); 7) perceived change of drinking water (p <0.01); food scarcity ( $\rho$  <0.01); and 8) worry about future life ( $\rho$ <0.001). Using logistic regression analysis, men (odds ratio [OR] = 3.10; poor economic status (OR = 2.40); no distribution of water purification tablets (OR = 0.37); and the type of water storage vessels (OR = 4.00) had a significant association with the development of diarrhea.

Further studies are needed to seek effective and applicable measures to reduce diarrheal outbreak in disasters. **Keywords**: Bangladesh; diarrhea; conditions, economic; epidemic; family; flood; purification; respiratory; water

E-mail: kuniio@attglobal.net