

## **Abstract of Presentation**

Presentation Title:

**Arsenic in Vegetables and its Implications on Human Arsenic Exposure**

Abstract:

The effect of As concentration in irrigation water on As accumulation in 6 selected vegetables has been assessed. Two As affected areas (Chandpur and Narayanganj) and one unaffected area (Bogra) of Bangladesh were selected as field sites, where the vegetables are grown with both low As bearing surface water and high As bearing groundwater irrigation. The irrigation water used in Bogra contained very little As (<1 to 8.3  $\mu\text{g L}^{-1}$ ), while those in Chandpur and Narayanganj contained significantly higher As (63-267  $\mu\text{g L}^{-1}$ ) when they were from groundwater source, and relatively lower As (<1 to 25.3  $\mu\text{g L}^{-1}$ ) when they were from surface water source. Unlike the case for rice grains (evaluated in a parallel study), the As concentrations in edible parts of the vegetables have been found to be strongly correlated with As concentrations in both irrigation water and root-soil. Estimation of dietary intake suggests that along with rice, intake of As from vegetables could constitute an important part of the overall As intake for people in the As affected areas of Bangladesh.