

Environmental Studies Departmental Seminar



Speaker: *Sulaiman Swaitii*

Title: *Assessing the extent and causes of elevated children's blood Lead levels (BLLs) caused by the unregulated E-waste recycling in the West Line villages (Hebron area)*

Date: Jan.17, 2017

Time: 13:15 (refreshments served at 13:00)

Venue: Seminar Room, Bona Terra Dept. MID

Abstract

Background: Primitive e-waste recycling practices in developing countries often have health impacts due to pollution, including by heavy metals. The West Line villages of the West Bank (namely - Idna, Deir Samit and Bait Awa) are economically dependent on primitive recycling of imported e-waste from Israel.

Objectives: To find out the extent of elevated blood lead levels (BLLs) among West Line children, to determine their potential sources and contributing factors, and, to assess their possible developmental impacts on intellectual and behavioral status.

Methods: Capillary blood samples will be obtained for 35 children aged 6 months to 4 years from each of the three West Line Villages and a control area. These will be tested for lead, using a LeadCare II analyzer. Data on potential contributing factors of elevated BLL will be gathered using questionnaires and home interviews for parents concerning possible sources and pathways of exposure at a child and household level. Since these children are too young for standard assessments of neurodevelopmental impacts (the WISC IV IQ test), we will perform these tests on their older siblings (aged 6-16 years), under the assumption that they will largely share an exposure history.

Expected outcome: By the end of this research, we will have representative data on the extent of elevated BLLs among children in the West Line villages, potential contributing sources and factors will be identified, and the relationship between BLLs and intellectual and behavioral status will be investigated. Based on these, public health recommendations will be suggested.