

Understanding Human Biomonitoring

Daniel Krewski, PhD, MHA

Professor and Director
McLaughlin Centre for
Population Health Risk Assessment

October 5, 2006

Tom Burke

Johns Hopkins University

- National Academy of Sciences report on human biomonitoring
- Biomonitoring a tool with great potential
- Biomonitoring framework developed
- Challenges of interpretation and communication



Doug Haines

Health Canada

- Regulatory, public health, and international policy context
- Applications in both risk assessment and risk management
- Detect trends
- Identify at-risk populations
- Evaluate interventions
- Ethical/social/legal challenges



McLaughlin Centre for Population Health Risk Assessment

Dana Barr

Centers for Disease Control

- Exposure-effect continuum
- NHANES study
- Longitudinal population based studies
- Choice of biological matrix
- Consideration of life stage



McLaughlin Centre for Population Health Risk Assessment

Panel Discussion

- Study hypotheses and communication plan should be clearly specified in biomonitoring studies (*Claude Viau*)
- Biomonitoring science still not fully developed (*Kathryn O'Hara*)
- Toxic Nations Studies indicate need for more Canadian biomonitoring data (*Kapil Khattar*)
- Learn from Canadian experience in Arctic (*Andy Gilman*)
- Interpret biomonitoring data in a risk context (*Rick Becker*)



General Discussion

- Kinetic studies needed to better understand role of metabolites
- Canadian Health Measures Survey (5,000 subjects)
- Mental models of risk can be helpful in communications
- Perceived vs actual risk
- Ethical considerations critical in biomonitoring
- *“Kudos to the organizers!”*



Next Steps

- Workshop report summarizing today's discussions
- Uptake of NRC report recommendations
- Toxicity Testing in the 21st Century
- Collection of new biomonitoring data (Canadian Health Measures Survey)
- Clarify interpretation of results
- Enhanced applications to population health risk assessment



Thank You's!

- Steering Committee
- Sponsors
- Speakers
- Participants



Adjourned!