Pesticides data:
What we need and why?

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August 12, 2013

What are the options?

(Focus – human health)

i) Traditional environmental media data: water, soil, air, food

ii) Biomonitoring data: urine

What would we get from the data?

Media data: ability to conduct a risk assessment

Biomonitoring data: information on amount of a chemical in the body

What we would NOT get from the data

Media data: information on an <u>individual's</u> short-term or long-term risk of adverse health outcome

Biomonitoring data: information on an <u>individual's</u> short-term or long-term risk of adverse health outcome

Media data for risk assessments

Need data of sufficient quantity and quality to address hypothesis or answer question

Are exposure levels in Maryland associated with unacceptable risk of adverse outcomes?

Are exposure/risk levels unique to certain parts of Maryland?

Biomonitoring data

Need data of sufficient quantity and quality to address hypothesis or answer question

What is the distribution of levels in all Marylanders?

How do levels in Marylanders compare to the US population overall?

Are there certain geographic areas with higher levels than other parts of Maryland?

Caution with biomonitoring data

- How to interpret transient versus chronic exposures?

- How to interpret data with no health-based reference range?

What would be needed once a question/hypothesis is formulated?

Experts in field collection of samples

Statistician: number of samples needed, collection strategy, data analysis

Certified lab: contamination issues, etc.

Risk assessors, epidemiologists, physicians for data interpretation and communication

Summary

Assessing Marylander's exposures/potential health risks to pesticides frustrated by lack of data

To figure out whether and what types of data are needed, must have specific questions/hypotheses

Need high quality data to answer questions or research will be called into question

Requires time, experts and resources