Connecting the Dots for Health

Action
Reduce xxx

Science & Facts
- xxx

Science

Ethics
- xx

History
- xx
Connecting the Dots for Health – *Toxic issue*

No more than 3 pages – 4th page including the connecting the dots diagram

Figure 1. (above)
The starting point is three basic dots: science, ethics, and history. The basic dots are a starting point and may be augmented depending on the topic or need to go deeper into a specific area.

**Introduction** Subject – justify action
A new approach is needed in the process of making and communicating decisions that protect human and environmental health from chemical substances. The challenge is not doing more studies to generate more data but using what knowledge we have to make decisions that are protective of human and environmental health. An equal challenge is succinctly communicating the scope and necessity of the decision. This section outlines a new approach based upon connecting the dots between toxicological sciences, history, and ethics.

One of the goals is to provide information in a format to help people connect the dots to enhance decision making.

**Action – what to do?** One sentence action statement
The desired action can be big or small but should be stated as simply and specific as possible. For example, a worker’s occupation lead exposure can reach 60 µg/dL before removal from the work place (Shaffer & Gilbert, 2017). An action may be “Reduce worker lead exposure so that blood lead levels are less than 5 µg/dL”. An action may also take the form of protecting children from lead based paint for passing a bill to reduce the use a pesticide. Once an action is defined the dots can be defined and connected to support this action.

**Science – assembling the facts** Brief overview of the science – exposure, health – vulnerable
Science is an ongoing process that builds knowledge and facts following a systematic study of testable predictions. Unfortunately, we are in a time when some disregard the facts of science
come up with their own alternatives. The beauty of science is that it is a never-ending quest for facts that explain the physical world. The scientific method is the systematic observation and experimentation to test a prediction of hypothesis. To reach the right decision it is essential to have a solid understanding of the scientific facts related to the topic. The science dot by necessity just addresses the most critical and essential facts.

**History – Looking back to go forward**

Key elements of history of issue
History or perspective on an issue is a critical part of making good ethical decisions. Environmental history is the study of how humans shape the environment and how the environment has shaped us. But is also gives us a chance to learn from our mistakes and apply the knowledge we have to current circumstances. It is only by putting information in the context of history, society and culture that we can truly make sound ethical decisions.

**Ethics – a guide to decision making**

Justify action - autonomy, justice
Ethics is often thought of as a branch of philosophy that attempts to explain what is right and wrong about a decision. But it is really much more than that. Ethics defines your approach to decision making. A great deal has been written on many different topics related to ethics and environmental ethics is most relevant. Environmental Ethics is commonly defined as the philosophical study of the relationship of humans to the surrounding environment. For our purposes, it can be narrowed and referred to as environmental health ethics or EHE. EHE strives to consider the scientific facts and making decisions that keep humans and world health and sustainable for current and future generations. EHE accepts the premises that we as humans have and ethical responsibility to ensure that all living things can reach and maintain their full potential.

**Current Regulation**
What are EPA, ATSDR, FDA exposure recommendations.

**References and Web sites**