

A conversation with Joanna Tempowski, September 26, 2017

Participants

- Joanna Tempowski – Scientist, Department of Public Health, Social and Environmental Determinants of Health, World Health Organization
- James Snowden – Research Consultant, GiveWell

Note: These notes were compiled by GiveWell and give an overview of the major points made by Ms. Joanna Tempowski.

Summary

GiveWell spoke with Ms. Tempowski of the World Health Organization (WHO) as part of its investigation into reducing environmental lead exposure. Conversation topics included sources of lead exposure, organizations working on lead paint legislation, and what needs to be done to eliminate lead paint in developing countries.

Sources of environmental lead

People may be exposed to lead from multiple sources (e.g. battery recycling, contaminated drinking water, some traditional medicines, lead paint, and occupational sources), and at a population level, it can be difficult to quantify the impact of any particular lead source. In countries that have good regulatory systems, there are regulations restricting the lead content in paint, gasoline, drinking water, food, the solder used in food cans, children's toys, and more. It is possible to determine the cumulative impact of such measures on lead exposure in the population by showing a decrease in mean blood lead concentrations over time; however, the impact of addressing one specific source cannot always be quantified.

Population-based data on blood lead levels would be a useful starting point for determining whether there is significant lead exposure, but relatively few countries have these data collected on a regular basis.

Lead paint

Policy background

Lead has been known to be toxic for hundreds of years and lead paint has been known to be harmful for more than a century. At the international policy level, the need to control pollution by lead was identified at the 1992 United Nations Conference on Environment and Development (UNCED). UNCED was a turning point in the political treatment of environmental issues. More specific attention to the need to phase lead out of paint, gasoline, and other products was given at the 2002 World Summit on Sustainable Development, which built upon the decisions made at UNCED. Progress on this issue was discussed at the International Conference on Chemicals Management in 2009 (ICCM2). ICCM2 noted the success of the

Partnership for Clean Fuels and Vehicles in phasing out the use of leaded gasoline and supported the establishment of a global partnership to promote the phase-out of lead paint. In 2015, the global elimination of lead in paint by 2020 was reaffirmed as a global priority issue at ICCM4.

In 2017, the 70th World Health Assembly approved the “Road map to enhance health sector engagement in the Strategic Approach to International Chemicals Management towards the 2020 goal and beyond,” which includes the phasing out of lead paint as a priority action. In addition, the third session of the UN Environment Assembly adopted a Resolution “Eliminating Exposure to Lead Paint and Promoting Environmentally Sound Management of Waste Lead-Acid Batteries.”

Data on lead paint in developing countries

The negative impact of lead paint on children is well-documented and does not require additional research.

Many developing countries do not have good data on lead exposure, and it is even more difficult to find data identifying lead paint specifically as a source of exposure. On the other hand, experience from developed countries (e.g. the US and France) has clearly shown a link between the use of lead paint in the home and elevated blood lead levels in children. Moreover, data from WHO and UN Environment show that most countries still do not have legally binding controls on lead paint.¹ It can be predicted that as low- and middle-income countries develop and people become wealthier and begin to buy and decorate homes, the use of lead paint will result in children’s exposure. In addition, the safe removal of lead paint can be costly.

Despite the lack of direct data, there is a strong argument that it is worthwhile to ban lead paint as a preventative measure in countries where this has not yet been done.

While there are estimates of the impact of lead exposure on economic development,² WHO is unaware of any data on the economic impact of exposure to lead paint specifically. If the impact of lead paint on economic development could be quantified, this would help convince countries to eliminate lead paint.

Other sources

It may be the case that lead paint is not very widely used in some low-income countries and is therefore not a primary source of lead exposure for children. Other major environmental sources of lead exposure for children may include poorly controlled industrial processes and the recycling of lead acid batteries, among other sources.

¹ http://www.who.int/gho/phe/chemical_safety/lead_paint_regulations/en/

² Attina TM, Trasande L. Economic Costs of Childhood Lead Exposure in Low- and Middle-Income Countries. *Environ Health Perspect.* 2013;121(9): 1097-1102
(http://ehp.niehs.nih.gov/1206424/?utm_source=rss&utm_medium=rss&utm_campaign=1206424)

Work on lead policy in developing countries

The Global Alliance to Eliminate Lead Paint, which is coordinated by WHO and the United Nations Environment Programme (UN Environment), has a target that all countries should have eliminated lead paint by 2020. This target is ambitious and may not be reached. There are currently:

- 68 countries that are confirmed to have lead paint legislation
- 69 countries that are confirmed to not have lead paint legislation
- 58 countries that have not yet responded to WHO's request for information and likely do not have lead paint legislation

Organizations working on lead policy

The main groups working on lead policy in developing countries are:

- The International Persistent Organic Pollutants (POPs) Elimination Network (IPEN)
- UN Environment
- The United States Environmental Protection Agency (EPA)
- The United States Centers for Disease Control and Prevention (CDC)
- The World Health Organization (WHO)

These organizations work together as part of the Global Alliance to Eliminate Lead Paint (the Lead Paint Alliance) and are developing tools and materials to help countries develop lead legislation, mostly focusing on Africa, Asia, and the Caribbean. Kenya and Tanzania have recently introduced legally binding standards for lead paint, and other countries are interested in doing the same, but many of these countries lack the technology to implement lead paint legislation.

Resources these organizations are directing to lead policy work

The amount of resources that WHO and UN Environment put towards this work varies from year to year, and much of it is in-kind. WHO has two staff members who work part-time on lead policy (one of whom is Ms. Tempowski).

IPEN has received resources from the Global Environment Facility (GEF) for projects in developing countries on lead paint. WHO and UN Environment are applying for funding from the GEF for a project that aims to increase by 40 the number of countries with legal controls on lead paint.

Use of resources

Ms. Tempowski suggests that resources would be best directed towards technical capacity building and education. For example:

- The limiting factor for implementing lead paint legislation in many countries is the ability to enforce regulations, for example by testing lead levels in paint being manufactured and sold. This requires countries to

have the appropriate laboratories to test paint samples and customs practices to regulate paint being brought into the country.

- In order to obtain data on lead exposure, countries need the laboratory capacity and resources to be able to do population-based studies.
- In many countries, there is a need to educate the technical workers responsible for writing and implementing lead legislation, and provide them with the necessary training and tools for implementation.

Because her focus is on health work, Ms. Tempowski would also want to direct resources to build capacity in the health sector for recognition and diagnosis of lead poisoning, and to develop and put forward a health argument for banning lead in paint.

Influencing governments

Because lead paint is primarily a policy issue, it is most effective to work at the country level. When IPEN has done studies showing that lead paint is for sale in certain countries and has publicized the evidence, it has often triggered change because the negative publicity puts pressure on the government. UN Environment has also organized workshops in some countries to inform governments about how to regulate lead paint, and many of the countries that have not yet banned lead paint were participants in the International Conference on Chemicals Management (ICCM), meaning that they were involved in the decision to address lead paint. These three factors together have sometimes been enough to cause countries to pass lead paint legislation.

Influencing the paint industry

Advocacy

Advocates of lead paint legislation must persuade paint manufacturers that lead is harmful, and that they can make lead-free paint that is equally good, at a price that consumers will pay. AkzoNobel, a successful multinational paint manufacturer which stopped using lead in its paint many years ago, has shown that this is possible. However, there are still some large manufacturers that continue to put lead in their products. For example, some pigment manufacturers have resisted the banning of certain lead compounds on the grounds that these compounds are in paint for very limited uses, and therefore their use results in very little exposure.

Consumer behavior

There is also a need for consumer awareness of the dangers of lead paint, so that people who buy paint put economic pressure on manufacturers by preferentially buying lead-free paint.

Other people to talk to about environmental lead exposure

- Dr. Sara Brosché – Campaign Manager, Global Lead Paint Elimination Campaign, IPEN

All GiveWell conversations are available at <http://www.givewell.org/conversations>