

## **WHO Assessment: DDT use for malaria a concern for human health**

***April 21, 2011. The World Health Organization has published an assessment of the risks to human health associated with the use of DDT for malaria control. The assessment shows that exposure to DDT in treated homes can pose a serious risk to human health. Of particular concern are women of childbearing age who live in houses sprayed with DDT. The WHO assessment emphasises that best practices need to be implemented to better protect affected people.***

National health authorities are allowed to spray the indoor walls of houses with DDT as stated in the Stockholm Convention on Persistent Organic Pollutants and under the supervision of the World Health Organization (WHO). Today, there are about 11 countries using DDT – most of them in Sub-Saharan Africa. Under the Stockholm Convention, the global community has committed to assisting these countries adopt safer and more effective alternative malaria control approaches, to reduce and eventually eliminate reliance on DDT worldwide. This month WHO published a new assessment of the human health risks associated with the use of DDT in indoor residual spraying.

### **Exposure above level of concern**

The WHO assessment confirms that people living in houses sprayed with DDT face health risks. In some areas where DDT was sprayed, the “exposure in treated residences has been higher than levels of concern”. WHO also finds that exposure can vary from location to location. Of particular concern are “women of childbearing age who live in DDT IRS-treated houses”.

One study from South Africa is highlighted, showing that newborn boys have an increased risk of deformation if their mothers lived in houses sprayed with DDT. Many previous studies have shown that mothers can transfer DDT to their unborn child during pregnancy and to newborns via breastmilk. According to WHO, DDT can also be acutely poisonous to children - high doses are associated with convulsions and even death.

“After having read the WHO assessment, it can no longer be said that DDT is safe,” notes Dr. Hans Rudolf Herren, member of the DDT Expert Group of the Stockholm Convention. “The international community should implement and give all support to an effective malaria control without the use of DDT”.

### **Countries to decide on stricter rules governing DDT use in Geneva**

The WHO assessment will be discussed at the Fifth Conference of the Parties to the Stockholm Convention, to be held between April 25 and 29 in Geneva. At this session, the international community will re-evaluate the continued need for the use of DDT for malaria control, and will consider stricter controls on the use of the chemical, in response to recommendations from the Convention’s DDT Expert group.

In view of the evidence provided by the WHO regarding risks to human health, along with documentation of problems with illegal use and trading of DDT in some countries, NGOs around the world are calling on participants in next week’s meeting to ensure implementation of an improved set of stricter rules for the use of DDT.

“Tightened rules would mean an important step towards effective, safe, and environmentally sound malaria vector control,” says Andreas Schriber, CEO of Biovision, an NGO based in Switzerland and Kenya. “If all necessary measures are being implemented and accounted for, DDT will no longer be as cost-effective as it is claimed.”

“The WHO’s new evaluation combined with the report of the Stockholm Convention’s DDT Expert Group, which concluded that most countries using DDT don’t have the capacity to properly manage it and many lack the capacity to comply with WHO guidelines, indicates that countries should rethink their use of DDT.” says Karl Tupper of Pesticide Action Network.

## Alternatives to DDT

Effective alternatives to DDT are available to control malaria, making reduced reliance on DDT a sound and urgent option. Evidence from countries such as Mexico and Kenya show that environmentally safe alternatives can be used, and have proven to be effective and efficient.

The International Centre for Insect Physiology and Ecology (*icipe*) along with the Kenyan Ministry of Health and with support from Biovision, have been implementing environmentally sound Integrated Vector Control programmes in various parts of Kenya, which have lead to significant reductions in malaria prevalence both in rural and urban environments. Dr. Charles Mbogo, Senior Scientist at *icipe*, is convinced that “a detailed analysis of the local situation and the involvement and co-operation of local communities” is the key to successful malaria control programmes.

Malaria control should be in the hands of the local communities to be sustainable and successful. To this end, the Millennium Institute, together with *icipe* and with support from Biovision has been implementing a new program that is based on a system dynamics model. The model supports broad stakeholder participation in the decision making process on how best to manage the malaria problem at community level.

DDT continues to be used in malaria vector control, despite its risks to human health and the environment. National health authorities are permitted to use it to control populations of the malaria-transmitting anopheles mosquito as stated in the Stockholm Convention on Persistent Organic Pollutants and under the supervision of the World Health Organization. The WHO has conducted an expert consultation on impacts of DDT use for Indoor Residual Spraying in view of concerns about human health.

(End of Message)

### Photos and captions:

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### Further documentation:

World Health Organization (2011). DDT in Indoor Residual Spraying: Human Health Aspects.  
<http://www.who.int/ipcs/publications/ehc/ehc241.pdf>

Bouwman H, van den Berg H, Kylin H (2011). DDT and Malaria Prevention: Addressing the Paradox.  
Environmental Health Perspectives,  
<http://ehp03.niehs.nih.gov/article/fetchArticle.action?articleURI=info%3Adoi%2F10.1289%2Fehp.1002127>

The Pine River Statement: Human Health Consequences of DDT  
<http://ehp03.niehs.nih.gov/article/fetchArticle.action?articleURI=info:doi/10.1289/ehp.11748>

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**Pesticide Action Network (PAN)** is a network of over 600 participating nongovernmental organizations, institutions and individuals in over 90 countries working to replace the use of hazardous pesticides with ecologically sound and socially just alternatives. PAN was founded in 1982 and has five independent, collaborating Regional Centers in Africa, Asia and the Pacific, Europe, Latin America and North America that implement its projects and campaigns. ([www.pan-international.org](http://www.pan-international.org))

**Biovision** was founded with the aim of sustainably improving life for people in Africa while conserving the environment as the basis for all life. Biovision Foundation is registered as a charitable organization in Switzerland. Biovision Foundation has for years been engaged in a positive campaign for malaria control using ecologically sound methods. ([www.biovision.ch](http://www.biovision.ch))

**icipe's** mission is to help alleviate poverty, ensure food security and improve the overall health status of peoples of the tropics by developing and extending management tools and strategies for harmful and useful arthropods, while preserving the natural resource base through research and capacity building. ([www.icipe.org](http://www.icipe.org))

**Millennium Institute's** vision is of a world where society manages its economy equitably, in harmony with its life-supporting environment and within the available renewable natural resources. Its mission is to help people and organizations enhance insight for decision-making in complex systems towards the development of a global sense of shared responsibility about our common future. ([www.millennium-institute.org](http://www.millennium-institute.org))