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PERSISTENT ORGANIC POLLUTANTS: FINAL REPORT

Background

1. In 1999, the 41st Directing Council of the Pan American Health Organization (PAHO) approved the concept paper Persistent Organic Pollutants (Document CD41/12) and accompanying Resolution CD41.R11 (1, 2). This final report summarizes progress made toward fulfilling the mandates set out in Resolution CD41.R11 (2) in order to inform PAHO Governing Bodies of the results achieved. As neither the document nor the resolution established a period of work on this subject, this final report also serves to Sunset Resolution CD41.R11.

Analysis of Progress Achieved

2. This section reviews progress achieved since 1999 on the five mandates for PAHO Member States set out in Resolution CD41.R11 (2).

(a) Ensure that the use of DDT is authorized by governments for public health purposes only, and that, in those instances, such use is limited to government-authorized programs that take an integrated approach, and that strong steps are taken to ensure that there is no diversion of DDT to entities in the private sector

3. Dichlorodiphenyltrichloroethane (DDT) is among the 12 persistent organic pollutants (POPs) initially listed in the Stockholm Convention, which entered into force in 2004 (3). The 184 Parties to the Stockholm Convention currently include 29 countries in the Americas. Under the Convention, where it is listed in Annex B, DDT is subject to restrictions on its production and use, with authorization required and acceptable purposes and specific exemptions noted. DDT may be authorized for disease vector control when locally safe, effective, and affordable alternatives are not available. Based on the records, and present knowledge, no country in the Region has requested this authorization.

(b) Take steps to reduce reliance on insecticides for the control of vector-borne diseases through promotion of integrated pest management approaches

4. From 2003 to 2008, PAHO, in coordination with the United Nations Environment Program (UNEP), the Global Environment Facility, the Commission for Environmental Cooperation (composed of Canada, Mexico, and the United States of America), and other key partners, implemented the Regional Program of Action and Demonstration of Sustainable Alternatives to DDT for Malaria Vector Control in Mexico and Central America (Project DDT/UNEP/GEF/PAHO) to control malaria transmission without the use of DDT by means of alternative methods that rely on strong community participation. The project demonstrated the effectiveness of using this approach and helped consolidate public opinion against any attempt to reintroduce DDT in the subregion. It increased public awareness of DDT effects among personnel of public institutions in the health, environment, and education sectors; among affected populations, including indigenous populations; and among community leaders such as mayors, who exercise local social supervision. The project also strengthened the capacity of institutions to promote malaria control without use of DDT and to monitor and evaluate environmental and human health risks due to exposure to POPs (4).

5. The Occupational and Environmental Aspects of Exposure to Pesticides in the Central American Isthmus (PLAGSALUD) project implemented in Central America during 1994-2003 promoted the use of alternatives to pesticides, including DDT. The project provided support for epidemiological surveillance, with recommendations for further data collection and analysis, in order to promote awareness and prevention of pesticide exposure (5).

6. The PLAGSALUD project's outputs and outcomes were incorporated into the chemical safety agenda with the current sixth edition of the course "Diagnosis, Treatment and Prevention of Acute Poisoning Caused by Pesticides," offered in a self-learning format through the Virtual Campus for Public Health of PAHO/WHO.

(c) Identify existing uses and stockpiles of persistent organic pollutants, particularly of DDT, determine essential needs for the control of disease vectors, and elaborate a plan for their safe use in the protection of human health and the environment

7. The Project DDT/UNEP/GEF/PAHO on malaria control without DDT carried out an inventory of pesticide stockpiles in Central America and Mexico and promoted advances on the repackaging, transportation, and appropriate final elimination of around 200 tons of POPs, including DDT (4).

8. Information on the destinations of DDT stockpiles between 2010 and 2018 has been reported by countries in the context of the Stockholm Convention. During the same period, Colombia, Costa Rica, Cuba, Guyana, Honduras, and Peru have reported exports of around 537 tons of DDT stockpiles for disposal in Finland, France, Germany, the Netherlands, and the United Kingdom (6).

(d) Develop and apply appropriate alternatives, in accord with the particular epidemiological situation in the respective countries, to control vector-transmitted diseases, including cost effectiveness studies and following published WHO guidelines

9. Integrated vector management (IVM) is a rational decision-making process for the optimal use of resources for vector control. The approach seeks to improve the efficacy, cost-effectiveness, ecological soundness, and sustainability of disease-vector control measures. The ultimate goal is to prevent the transmission of vector-borne diseases such as malaria, dengue, Japanese encephalitis, leishmaniasis, schistosomiasis, and Chagas disease, with reduced use of pesticides (7).

10. The Plan of Action on Entomology and Vector Control 2018-2023, adopted by the 56th Directing Council of PAHO in 2018, addressed integrated vector management (8). In addition, to facilitate multisector work on vector control, PAHO has developed an operational handbook for IVM (9). This has resulted in additional countries with multisector working groups and finalized national plans.

(e) Support PAHO efforts—especially those Member States with experience and appropriate technology—with technical and financial resources to promote and conduct evaluations of the long-term effects of persistent organic pollutants on human health, especially of the most affected population groups in Latin American and the Caribbean

11. In 2018, the WHO International Agency for Research on Cancer published volume 113 of its monograph series on the evaluation of carcinogenic risks to humans, covering DDT, lindane, and the herbicide 2,4-dichlorophenoxyacetic acid (2,4-D). Based on a literature review, the authors conclude that there are strong downward trends globally in population levels of plasma or serum DDT (and its metabolite DDE). They attribute these trends to the ban on most uses of DDT in many countries (10).

12. In 2013, UNEP and WHO presented the results of a global survey on concentrations of POPs in human milk, using five rounds of the exposure from 1987 to 2012. Twelve countries in the Americas participated in the survey (Antigua and Barbuda, Barbados, Brazil, Canada, Chile, Cuba, Haiti, Jamaica, Mexico, Peru, United States of America, Uruguay) among a total of 72 countries worldwide. The report highlights wide global differences in the levels of DDT and its metabolites detected during 2000-2012 (11).

13. Further analysis of data from the UNEP and WHO global survey of POPs in human milk by Van den Berg et al. (12) has indicated that the benefits of breastfeeding outweigh the potential toxicological effects associated with some POPs.

14. The Global Monitoring Plan Data Warehouse provides results of chemical analyses of human milk, blood, air, and water from countries. These are important data to be used for research and policy purposes (13).

Beyond 2020: The Chemicals Road Map

15. The Stockholm Convention has been considered the first attempt to strengthen the global management of chemicals. Significant advances, with more direct emphasis on public health, have been made since the World Summit on Sustainable Development held in Johannesburg in 2002. These include the launch of the Strategic Approach to International Chemicals Management (SAICM), adopted by the International Conference on Chemicals Management in 2006. In May 2016, the 69th World Health Assembly requested WHO to develop a road map to enhance the role of the health sector in implementation of the SAICM and in sound chemicals management toward 2020 and beyond (14). The road map, approved by the 70th World Health Assembly in 2017 (15), directly addresses three targets related to chemicals in the 2030 Agenda for Sustainable Development: targets 3.9 (reduction of death and illness from hazardous chemicals), 6.3 (improved water quality), and 12.4 (sound management of chemicals) (16).

16. These advances have promoted more direct and visible responsibilities for the health sector with respect to chemical safety. For example, with respect to the Minamata Convention on Mercury, the 67th World Health Assembly outlined the role of WHO and ministries of public health in implementation of the Convention (17). The WHO chemical safety program has issued a set of guidance documents to assist countries in the implementation of health sector responsibilities in regard to the use of mercury (18).

Action Necessary to Improve the Situation

17. PAHO and WHO should continue their support for the development of a chemicals road map and its implementation by the countries, using online resources for country engagement and multisector work. In the WHO chemicals road map (16), a suite of measures related to chemicals management is presented to address four areas of action (risk reduction, knowledge and evidence, institutional capacity, and leadership and coordination). The road map also provides tools to support the decision-making process, including identification of a priority set of chemicals.

Action by the Executive Committee

18. The Executive Committee is invited to take note of this report and provide any comments it deems pertinent.

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