Public health pesticide registration and management practices by WHO Member States

Report of a 2010 survey

WHOPES WHO Pesticide Evaluation Scheme

World Health Organization

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Contents

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1. Introduction

Pesticide management refers to the regulatory control, proper handling, import, supply, transport, storage, use and disposal of pesticide waste to minimize adverse environmental effects and human exposure.

Capacity-strengthening for sound management of public health pesticides has become a priority. This is a consequence of the increased use of insecticides for vector-borne disease control and personal protection; the increasing challenges of managing these chemicals under decentralized health systems; the depleting arsenal of safe and cost-effective insecticides; the need to extend the useful life of pesticide products currently in use; and the inadequacy of national regulatory frameworks and of human and financial capacity to regulate the availability, sale and use of public health pesticides.

The poor capacity for enforcing the regulatory environment allows the excessive and unsafe use of pesticides and results in pollutants in food, drinking-water and the environment, all of which pose a significant risk to human health. The availability of substandard, illegal and counterfeit pesticide products on the market is also of great concern; these products not only fail to deliver the expected efficacy and performance but also present a substantial risk to human health and the environment. Resolution 63.26 of the sixty-third World Health Assembly, on improvement of health through sound management of obsolete pesticides and other chemicals, urges Member States to establish or strengthen capacity for the regulation and sound management of pesticides throughout their life-cycle as a means of avoiding the accumulation of obsolete chemicals (WHO, 2010c).

The *International Code of Conduct on the distribution and use of pesticides* (referred to hereafter as the Code of Conduct), originally adopted in 1985 by the Conference of the Food and Agriculture Organization of the United Nations (FAO) and revised in 2002 (FAO, 2003), promotes sound pesticide management practices that can minimize potential health and environmental risks. The Code of Conduct describes the shared responsibility of many segments of society, including governments, industry, trade, and international institutions, and provides a framework for management of all pesticides, including those intended for use in agriculture and in public health.

Public health pesticides include pesticides for vector control and household insecticides (e.g. mosquito coils and aerosol sprays) as well as pest management products for use by professional operators. Although FAO has carried out several studies on the state of implementation of the Code of Conduct and on management of agricultural pesticides (FAO, 1993; FAO, 1996), similar studies relating to public health pesticides are very limited.

Since 2002, the WHO Pesticide Evaluation Scheme (WHOPES) has significantly expanded its support to Member States for capacity-strengthening for the sound management of public health pesticides. Since 2007, through a Memorandum of Understanding signed with FAO, the Scheme has established a joint programme for the sound management of pesticides to ensure harmonized and complementary support and advice to Member States and other stakeholders on this priority issue. A survey was carried out by WHO in 2003–2004 (WHO, 2004) with the aim of gathering

reliable information on public health pesticide management practices by Member States and of using that information as a baseline for monitoring progress in this area in future.

The scope of this second survey was expanded by incorporating additional questions on registration and life-cycle management of public health pesticides as well as on implementation of the Code of Conduct. The objective of the survey was to map and document pesticide registration and management practices and regulations in countries endemic for, or at risk of, major vector-borne diseases. The intent is that the information be used to inform future plans for optimizing and harmonizing public health pesticide registration procedures and post-registration regulation; for developing strategies and action plans for capacity-strengthening of Member States; and for mobilizing required resources.

2. Survey methodology

The questionnaire used in the WHO survey of 2003–2004 was reviewed and revised at a WHO Informal Consultation on development of a tool for survey on public health pesticide management, held at WHO headquarters in Geneva, Switzerland, on 10–11 December 2009.

The English version of the questionnaire was field-tested in various WHO regions before being finalized. The document was then officially translated by WHO into French and Spanish; before use, the translations were reviewed by national experts for comprehension.

The questionnaire was in two parts. Part I related to registration and other regulatory issues and was completed by national pesticide registration authorities; Part II related to pesticide use and management in vector control and was completed either by the director of the national vector-borne disease control programme or by the national manager for vector control.

The questionnaire was distributed to WHO Member States (territories were excluded) endemic for, or at risk of, one or more of the eight major vector-borne diseases (malaria, dengue, Chagas disease, leishmaniasis, lymphatic filariasis, onchocerciasis, human African trypanosomiasis and Japanese encephalitis) through the six regional offices of WHO. The targeted Member States included all countries in the WHO African, Eastern Mediterranean and South-East Asia regions; all countries in the Region of the Americas except those in North America; all countries in the Western Pacific Region except Australia and Japan; and six countries in the south-eastern part of the European Region.

The majority of the targeted countries were low- to upper-middle-income countries as defined by the World Bank (World Bank, 2010). WHO Representatives' Offices, and their affiliated vector control focal points, facilitated data collection from relevant national authorities and agencies.

The questionnaire consisted of multiple-choice questions with two, or in some cases more, options given. The responses were entered into a computer spreadsheet for analysis and future reference. Questions for which no response was provided or for which more than one option was chosen by the respondent were excluded from the analysis.

For analysis of responses to a particular question, the denominator was the total number of countries responding to that specific question (as shown in the various tables in this report). The denominator thus varied from question to question.

In-depth assessment of specific aspects of pesticide management was beyond the scope of this survey because it would have required further follow-up and studies. In addition, interpretation of the outcomes of this survey should be made in the specific context of each region, since the regions differ in their levels of socioeconomic development.

The analysis is based on the responses received from the national authorities. The relatively lower response rate in the African Region is believed to be largely a consequence of the limited time for administration of the survey.

3. Analysis of responses

3.1 Responding countries

The survey was unique in its scope and in the number of responding countries. Of 142 countries targeted, a total of 113 responded to the questionnaire (Table 1 and Figure 1) – an overall response rate of 80%, covering 94% of the population targeted. Response rates were 65, 85, 81, 83, 73 and 100% in the African, Americas, Eastern Mediterranean, European, South-East Asia and Western Pacific regions, respectively (Table 2); this represents 76, 96, 98, 78, 96 and 100%, respectively, of the population of these regions.