

# *International Association for Suicide Prevention*

## **Report on the 2<sup>nd</sup> International Workshop on Secure Access to Pesticides, conducted in conjunction with the International Association for Suicide Prevention Asia-Pacific Regional Conference on Suicide Prevention, Singapore, 9 March 2006 (sponsored by Syngenta Crop Protection)**

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### **Objectives, context and participants**

This Asia Pacific workshop is a continuation of an international collaborative initiative of the International Association for Suicide Prevention (IASP) to decrease intentional pesticide poisonings around the world. The goal of this 2006 workshop was to build upon workshops held in 2004 (national programme in Sri Lanka) and 2005 (international event in South Africa) on secure access to pesticides. All workshops were sponsored by Syngenta Crop Protection. A total of 35 participants from 18 different countries participated in the Asia Pacific workshop most of whom were not involved in the international 2005 workshops (24 participants from 14 different countries).

The aim of this workshop was to develop a collaborative model in which the issues surrounding the use of pesticides (crop protection products) as a means of suicide are addressed and publicized so that we can reduce suicide deaths using pesticides. The workshop focused on: 1) reviewing the background on the constructive use of pesticides as an essential economic and agricultural necessity as well as their use as a means of suicide; 2) to explore the notion of introducing secure access as an effective measure in reducing suicide and 3) to develop a framework in which secure access to the means of suicide, using the “pesticide” model, can be replicated and evaluated in relevant communities. This workshop was designed to provide information for the development of the International Association for Suicide Prevention – World Health Organization collaborative initiative on pesticide suicide prevention.

**Activities**

The format of the workshop was a combination of presentations of evaluative research results, and brief country reports, and group discussions on key topics. The workshop included a general presentation on the effectiveness of restriction of access to methods as a means of suicide prevention by Associate Professor Annette Beautrais from New Zealand. State of the Art presentations on pesticide suicides in China and Malaysia were presented by Dr. Michael Phillips and Professor T. Maniam. Presentations on challenges in the prevention of pesticide suicides in Sri Lanka and India were made by Professor Ravindra Fernando and Dr. Lakshmi Vijayakumar respectively. Mr. David Scott from Syngenta Switzerland spoke on secure access projects from an industrial perspective. There was a brief country report on the situation in Tonga by Reverend Filifai Esaelilo and a presentation on the initiatives in Western Samoa by Ms. Ofiera Manutai.

The IASP President, Brian Mishara, from Canada, presented the context, moderated discussion and presented feedback; Dr. Morton Silverman, from the United States, reflected upon the day's activities at the end of the workshop.

**Findings from the workshop**

It is obvious from previous workshops on this topic that ensuring safer access to pesticides has a great potential to reduce suicides by pesticide ingestions and to decrease suicide rates in areas where this method of suicide is common. The previous workshops suggested that programmes to provide secure access to pesticides should be linked to other initiatives that aim at helping people with problems and resolving underlying risk factors, including poverty and mental disorders. Initiatives in China, Sri Lanka and India, among others, have been shown to be promising. Providing locked boxes has been shown to be an acceptable means of increasing the security of pesticides and, although studies have not yet been completed, preliminary evaluation results suggest that providing locked boxes may have a significant effect on suicide rates. Despite these promising reports, participants

recognized the importance of conducting larger scale investigations that follow the interventions for a longer period of time, with particular attention to verifying that there is not substitution of methods.

This Asia-Pacific workshop moved the field forward by specifying the most important research questions on secure access and the nature of studies and interventions that need to be undertaken and evaluated.

### **Conclusions from the Workshop: Important Research Questions and the Nature of Research that Needs to be Conducted**

The major research questions focus upon the assessment of the effectiveness of intervention and prevention programmes. In order to evaluate programme effectiveness, it is important to first gather baseline information, including information on:

- What agro-chemicals are available, when and where they are available and what is the level of access;
- The extent of knowledge on appropriate use;
- -The management of accidental or intentional ingestion in the community and by local medical staff;
- Suicide rates before interventions including attempted suicides, fatal or non-fatal poisonings and demographic and situational information about the suicides and suicide victims;
- Identification of what needs to change at the user level:
  - Is there a need for increased knowledge?
  - Is there a need to change attitudes and beliefs?
  - Is there a need to change behaviours, such as where pesticides are stored?

It would also be useful if we were able to identify, before starting studies, which sub-groups of the population are most at risk.

One should then document the nature of the intervention programme and to develop a model or theory of how participating in this programme should result in decreases in intentional and non-intentional self-poisoning.

It is important to pair intervention sites with control group communities that are as comparable as possible in order to better ascertain that the interventions resulted in affected changes contributing to rates suicide and attempted suicide. If control groups are not incorporated into the research design, there is no way of knowing if any changes that are observed are due to overall trends within the society that are independent of the intervention we are trying to evaluate. Besides assessing changes in suicide and attempted suicide rates before and after the interventions, it would be useful to evaluate intermediary parameters such as changes in knowledge, attitudes and storage practices within the community. Also, it is important that the evaluation be conducted by external independent researchers, rather than having the persons who conduct the intervention also assess its effectiveness.

In conducting this research on secure access, it is important to monitor the effects for as long a period of time as possible with particular attention and sensitivity to cultural and political factors that may influence practices. It is important that any interventions be based upon a qualitative assessment of the local situation so that programmes may be adapted to local conditions. Programmes must also have enough flexibility to adapt to changing social and economic conditions.

There was also discussion of the importance of training community members to implement interventions and develop local capacity to continually evaluate effectiveness, so that monitoring can become a sustainable part of prevention programmes.

The participants concluded that there is a need for controlled trials in which there are:

1. Gathering of baseline data on target variables as well as detailed description of the population.
2. Randomized attribution to intervention and control groups as the most desirable research design.
3. Conducting of prospective studies, lasting between 1 and 5 years, depending upon the base rates and population size.

It was concluded that the best research design from a strictly scientific point of view, would involve having secure access available in some communities and not in others, and then taking away the secure access in the experimental communities and providing secure access to the control group. However, because of ethical and practical concerns it is impossible to conduct such a study. Therefore, a case-control study comparing equivalent populations with and without safe access is the next best solution. Safe access could be provided later to the control group once the study has been completed.

There was also discussion of a need for naturalistic descriptive studies to better understand which aspects of programmes are effective. Also, it would be interesting to first conduct epidemiological investigations to identify areas of high pesticides use and high suicide rates, in order to better target populations that could benefit from interventions. In all of the above, it is important to consider the realities of available budgets, political will and human resources.

### **Conclusions from the Workshop: Requirement to Ensure Success**

Participants discussed a large number of characteristics of programmes that are important to ensure the successful outcomes.

- It was recommended that the suicide focus of the programmes be incorporated into a larger context of “safe use and storage programmes” in which there is an emphasis on misuse, with a dual message of both keeping it secure and protecting children and others.
- It is also important that there be a clear vision and goal for the programme with written explicit programme guidelines.
- The commitment to continuous and long-term programming and monitoring is essential.
- The basic approach that is recommended is to first conduct small pilot tests to determine an idea if the interventions work, and then refine the approach and conduct more methodologically sophisticated investigations involving larger numbers of participants.

In order for any programme to be effective, it is essential to obtain endorsements at a variety of levels, including the national, regional and local levels. If “natural leaders” are involved, as well as local organizations and key people, this will help ensure the acceptability of interventions and participation in evaluative research. Other partners include the media, telephone helplines, crisis centres, local hospitals and clinical clinics and doctors practicing in the area. It was recommended that a social marketing approach could be helpful to highlight the importance of securing pesticides. This approach should have as its goal community approval, acceptance, cooperation and collaboration. The community must be made aware of the magnitude of the problem and be convinced that the programmes are culturally sensitive and relevant for the population at risk. Government collaboration is essential, including health department, agricultural departments and ministries and NGOs. Private sector endorsement and support from manufacturers and distributors are also important and it is essential to have ongoing financial support.

There was discussion about incentives to increase involvement and commitment to the programmes. Participants wondered if it was possible to include some form of economic incentive. Otherwise, publicity and acknowledgement of participants could be of great use.

Finally, there was discussion of the importance of sensitizing people in political positions of authority in order to assist in developing the political will to move ahead with pesticide suicide prevention programmes.

Professor Brian Mishara

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