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CHILDHOOD POISONING: A STUDY IN THUA THIEN HUE & DONG THAP PROVINCES IN 2006



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We highly appreciate if receiving more comments on the report. Any weak points remained of course, we are responsible for.

On behalf of the study team

Tran Tuan, MD; PhD

Abbreviations

CIP	Children Injury Program
Dept.	Department
ICD-10	International Classification Diseases
IEC	Information, Education and Communication
MOH	Ministry of Health
RTCCD	Research and Training Centre for Community Development
TOR	Terms of Reference
CHC	Commune Health Centre
UNICEF	United Nations Children Fund
WHO	World Health Organization

Executive summary

This study was conducted on the request of UNICEF and the Vietnam Administration of Preventive Medicine within the context of the UNICEF-MOH program on childhood injury prevention (CIP). The study aimed to identify the routine information system of childhood poisoning, to describe the circumstances of childhood poisoning, to identify the poisoning risks, common factors associated with childhood poisoning, and to provide recommendations for effective prevention of childhood poisoning. It was carried out by a local independent research institution (RTCCD) in two provinces of Thua Thien Hue and Dong Thap from November 2006 to January 2007. In data collection, the team used the two steps approach:

- *Child poisoning survey at the public routine information system:* Four provincial and regional hospitals located in the two provinces, together with two district hospitals in each province were visited by the team for collecting list of child poisoning cases during the last 3 years. From the lists, a sample of 56 cases which met the ICD-10 definition of child poisoning and happened during the previous 6-12 months were selected for the community case study in step two. In addition, an assessment of the public health provincial information system including both curative and preventive statistics for monitoring child poisoning was also conducted in this step.
- *Community child poisoning investigation:* From 56 cases selected from the hospitals, field study was conducted to interview parents or child caregivers about the causes and circumstances of poisoning happened. Other child poisoning cases similar to the index cases were explored to identify the magnitude of childhood poisoning at the community. 10 community group discussions were organized to collect the recommendations for childhood poisoning prevention.

The study found that:

- The current routine information system within the provincial health system was not adequate for monitoring childhood poisoning. The main reason is a lack of a common practical definition of child poisoning, a lack of practical guideline for recording data and using data from the hospital information system for hospital management and public health purposes.

- The information written in most patients' record books was not clear and not sufficient for classifying child poisoning by causes as well as for further investigating causes.
- Data on childhood poisoning reflected by the routine information system was much lower than that happened at community.
- Data from the last three years in each province did not tell us about the trend of childhood poisoning. From community investigation, public opinion expressed that childhood poisoning was increasing during the last 3 years.
- In terms of the magnitude of childhood poisoning, from investigation of 56 poisoning cases we found other 60 poisoning children in the community. It indicates that the percentage of unreported poisoning cases was 52% (60/ 116); of which, food poisoning was the highest 63% (38/60) and venomous bites accounted for the lowest percentage of unreported cases 20% (4/21).
- Children aged less than 2 were unintentionally poisoned at home due to parents or people who look after children. Whereas, children aged from 2 to 5 were unintentionally poisoned at home, neighbor's houses, or kindergarten. Children aged more than 5 were poisoned unintentionally or intentionally at home, food stall, in the canteen, in school, on the street, in the jungle or in the relative's house...
- Childhood poisoning happened most commonly in food poisoning, followed by chemical poisoning, medical and biological poisoning, and rarely venomous bites. Commonly using illegal substances in producing, preserving, and processing foods is the main cause of food poisoning, while a lack of a public health system for effectively inspecting and controlling human poisoning is the main cause contributed for a high prevalence of chemical poisoning, food poisoning, and medical and biological poisoning.
- Risks for childhood poisoning are enormous and varied by type of poisoning. For food poisoning, as the most listed are bacteria contamination, chemical residue, chemical addition and pigment addition in preservation of foods as well as during food processing. For chemical poisoning, the main reasons were unsafe storage, usage of fake and out-dated chemical products or committed suicide. For drugs and biological substances, the most common risks were unsafe storage, misuse, overdose of medicines, usage of quack herbal medicines, followed by suicide.
- The root causes of childhood poisoning were attributed to a poor knowledge from community, childcare givers, and school teachers about risks of

childhood poisoning. The research also found that prevention of childhood poisoning and first aid for poisoning cases have not been addressed adequately in the primary health care system.

- There is a big gap between people awareness on bad effects of childhood poisoning and actions for prevention of childhood poisoning. Findings from group discussions and interviews showed that people claimed that childhood poisoning was a big issue, especially food poisoning but most of them did not have clear solution and action in prevention of childhood poisoning.
- When childhood poisoning occurred in the community, people did not know how to conduct a proper first aid. The knowledge and skills of people about first aids were poor.

Recommendations

1. Upgrading the routine information system for better monitoring childhood poisoning, standardizing the patient's record book in public and private health sectors.

- A study is needed to revise current information system for monitoring childhood poisoning. The system should cover both public and private health care providers, inpatients and out-patients, as well as data from community outbreak investigations. Based on this research, guidelines on investigating a case of poisoning and standard forms for case recording at community as well as at hospitals need to be developed. Definitions and classification of childhood poisoning proposed by WHO (ICD-10) should be used.
- Training on monitoring childhood poisoning should be integrated to the training program on collecting and analyzing the routine information system data for hospital management and public health purposes.
- The routine health information system should be revised towards a two-way information system. This is particularly true for childhood poisoning: any case diagnosed by hospitals as poisoning should be followed by a community investigation for prevention purposes.

2. Putting childhood poisoning into agenda

- Childhood poisoning, especially food poisoning, is a serious public health problem, therefore, implementing a program of control of childhood poisoning is an urgent need.
- The current system of poisoning investigation (including child poisoning) were not able to investigate most of poisoning outbreaks. Upgrading this system is a must priority.
- A quality control system and hygiene inspecting system should be applied not only to food preserving and processing in factories, but also at public markets
- Strengthening the legislations as well as control and supervisions on food safety, chemicals, medicines and biological substances is needed.
- Medical practice of the private health sectors should be supervised.

3. Improving public awareness on prevention of childhood poisoning

- Improving people's knowledge on the childhood poisoning, including causes, risks, and how to prevent.
- First aids of childhood poisoning should be implemented as soon as possible, through the IEC programs and mass media, including TV and radios.
- Changing the negative behaviors of people which relate to childhood poisoning through IEC programs and building community based intervention models.
- Launching safety education programs in school to improve the understanding of children about the dangers and risks of poisoning.

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