



# STUDY ON DRUG DONATIONS IN THE PROVINCE OF ACEH IN INDONESIA

## Synthesis

### INTRODUCTION

On 26 December 2004, a massive earthquake measuring 9.3 on the Richter scale triggered a tsunami that devastated southern Asia. Indonesia, particularly the province of Aceh, was the most devastated among the tsunami-affected countries. In view of the scale of the disaster, the Government of Indonesia opened the province—which had been closed to foreigners—to international assistance, which helped to ensure prompt delivery of aid in the early days of the disaster.

However, as in previous humanitarian crises such as the earthquake in Armenia (1988), the war in Bosnia-Herzegovina (1992-1996) or the influx of refugees from Kosovo to Albania (1999), the lack of coordination and the absence of an assessment of the actual needs of the populations decreased the effectiveness of emergency aid and generated dysfunctions in the area of health, more particularly in the management of drug donations.

It is wrong to claim that any drug is useful in an emergency situation. Instead a crisis calls for a variety of different specific drugs relevant to the situation to avoid the risk of flooding the affected countries with tonnes of drugs, that not only constitute a public health hazard because their distribution and control are poorly managed, but also a destabilising factor in the local economy. As a reminder, between 1992 and mid-1996 in Bosnia-Herzegovina, an estimated 17,000 tonnes of inappropriate donations were received with a disposal cost of USD 34 million.

In Indonesia, drug donations also seem to cause more problems to the Indonesian authorities than they help the population.

A programme to support the provincial and national authorities in managing drug donations has been implemented since February 2005 by Pharmaciens Sans Frontières - Comité International (PSFCI) and financed by the Directorate General for Humanitarian Aid of the European Commission-ECHO for a total cost of EUR 520,000. Today, it is estimated that at least another year will be necessary to finalise the programme.

To assess the real usefulness of these drug donations for the affected population, PSF-CI, in cooperation with the national and provincial health authorities, undertook a survey in health centres, hospitals and pharmaceutical warehouses in tsunami-affected districts in Aceh Province.

The survey was financed by the World Health Organisation (WHO).

### OBJECTIVE

To assess the impact of drug donations on the public pharmaceutical system in tsunami-affected areas in Aceh Province.

### METHODS

The survey was conducted over a period of two months, from 20 May to 20 July 2005.

Three teams composed of pharmacists, assistant-pharmacists and public health experts took part in the survey. One person was trained in data entry.

#### Development of tools

Four tools were developed:

- questionnaire for warehouses
- questionnaire for hospitals and health centres
- questionnaire for NGOs
- document to inventory drugs

The inventory was made using the National List of Essential Drugs (NLED) of Indonesia and was based on criteria used by the WHO to define an inappropriate drug.

Data analysis was completed using EPI 604 software and Microsoft Excel.

The quantity of drugs in kg is estimated based on the volume occupied by drugs in the visited facilities and on the basis that 1 m<sup>3</sup> is equal to 300 kg (reference Kit IDA).

### Target districts

Eight tsunami-affected districts were targeted for the survey: Banda Aceh, Aceh Besar, Pidie, Bireueun, Lhokseumawe, Aceh Jaya, Aceh Barat and Simeuleu.

### Target facilities

- 8 district and provincial hospitals (provincial hospital of Banda Aceh, district hospital of Banda Aceh, Pidie, Bireueun, Aceh Utara, Aceh Besar, Aceh Barat, Simeuleu)
- 9 district and provincial warehouses (Banda Aceh, Pidie, Bireueun, Lhokseumawe, Aceh Besar, Aceh Barat, Aceh Jaya, Simeuleu)
- Stocks of drugs in ports and airports (Medan, port for landing and storage of containers and Banda Aceh, military airport where donations were unloaded directly onto the airstrips outside the control of customs)
- 60 health centres
- 124 national and international NGOs present at the time of the survey and selected from the HIC list (Humanitarian Information Centre, an organisation that maintains an inventory of the organisations present in Aceh Province and the nature of their aid).

The selection of the health facilities to be surveyed was guided by the following criteria: areas affected by the tsunami, location of the facilities on the health map and transport options in these regions.

The tsunami caused damage as far as 4 km inland, so it was decided to include in the survey all the facilities located within 7 km of the sea on the coastal strip from Lhokseumawe to Aceh Barat.

Moreover, a sample of facilities located within 20 km of the coast was chosen to assess the presence of donated drugs out of the affected areas.

### Information

The purpose of the survey was to collect the following information:

- location of donated drugs
- assessment of the quantity and value of donated drugs
- identification of donors
- characteristics of drugs in terms of appropriateness
- storage of donated drugs
- management of medicinal waste

## RESULTS

The results are from the survey conducted in 5 out of 8 districts.

Six out of nine targeted warehouses were surveyed, as well as 6 out of 8 targeted hospitals, 36 out of 60 targeted health centres, 124 national and international NGOs, the port of Medan and the military airport of Banda Aceh.

For security and logistical reasons, the districts of Simeuleu, Aceh Jaya and Lhokseumawe could not be surveyed. Moreover, six months after the disaster, many donors had left the area and could not be interviewed.

In addition, 22 tonnes of drugs were ordered destroyed by health authorities in February 2005 and were not included in the survey.

### Quantity of drugs received

Although no medicine was asked for, more than 4,000 tonnes of drugs were received for a population of 2 million people.

### Donors of received drugs

The survey identified 140 donors:

- 53 Indonesian organisations (NGOs and associations, companies, national agencies, universities, political parties, army)
- 48 international organisations (governmental and non-governmental organisations, armies, companies)
- 39 foreign governments

### **Inappropriate drug donations**

#### ***Drugs not listed on the national list of essential drugs***

60% of the drugs were not on the national list of essential drugs.

#### ***Drugs unknown to health care providers***

70% of the drugs were labelled in a foreign language, including Arabic, Chinese, Danish, Dutch, English, French, German, Hindi, Japanese, Korean, Pakistani, Portuguese, Russian, Spanish, Thai, and Turkish

#### ***Drugs with an inadequate expiry date:***

25% of the drugs had an inadequate expiry date (already expired on arrival, due to expire less than 6 months from the date of donation, due to expire less than 1 year from the date of donation, no expiry date).

### **Appropriate drugs received in excessive quantities**

Some appropriate drugs arrived in extremely large quantities. Based on the current consumption rate, the province of Aceh has several years of supply of some drugs that will not be used before their expiry date if action is not taken soon. Examples include Oral Rehydration Salts (5 -8 years of supply), Dextromethorphan 15 mg (6 years of supply) or Tetracycline 250 mg (4 years of supply).

### **Storage of donated drugs**

#### ***Storage sites***

The survey found various storage sites:

- Hospitals, district warehouses and provincial warehouse
- Health centres, health posts, advanced posts in refugee camps
- Private homes
- NGO warehouses, army warehouses, “town hall” warehouses
- Provincial Department of Health (Aceh province)
- Food and Drug Administration - FDA (Medan, Aceh province)
- Port area of Medan

#### ***Storage capacity***

Before the tsunami, the health infrastructure of Indonesia had limited storage capacity. In destroying or damaging many facilities, the tsunami further reduced this capacity in terms of space and equipment available. In the same time, nearly half of the health personnel in Aceh Province perished. In such circumstances, the inflow of donations of drugs proved to be impossible to manage:

- Health personnel in 3 hospitals (Zainal Abiddin, Bireuen and Meulaboh) had to sacrifice office space and/or patient rooms to store inappropriate drugs.
- At least 30 tonnes of drugs were not secured and were stored in courtyards or in open sheds.
- Many kits cluttered the corridors leading to the consulting rooms of the health centre of Ingin Jaya
- 84% of the surveyed facilities (district warehouses, hospital and health centre pharmacies) did not have air-conditioning to ensure proper storage conditions.

Such conditions of storage cannot guarantee the quality of drugs. In addition, overcrowding greatly hinders the work and movements of health staff and patients in hospitals and health centres.

### **Waste management**

There are two incinerators of limited capacity operating in the province of Aceh. One is at the military hospital of Banda Aceh and the other is at the hospital of Meulaboh. Only this last incinerator, belonging to the public system, is easily accessible.

No waste disposal protocol was available in the five surveyed districts.

Only taking into account the drugs with no expiry dates, the drugs that had already expired at the time of their arrival and drugs due to expire 6 months from the date of donation, 17% (about 600 tonnes) should be destroyed without delay.

At the rate of 4 euros per kg disposed, the average disposal cost will be EUR 2,400,000.

## **CONCLUSION AND RECOMMENDATIONS**

We have to admit that, almost 10 years after the first publication of the Guidelines for Drug Donations, the quality of humanitarian aid with respect to drug donations in acute emergency situations has not improved.

It has instead deteriorated with an increase in the number and diversity of donors, especially in high profile disasters. In an emergency situation wherein human resources, infrastructure capacity and logistical capacity are limited, drug donations are useless: they cause additional public health problems for the affected population, and economic problems for the country, which will have to pay for the management and destruction of these drugs.

Many organisations are trained and prepared for immediate action. They have the skills to carry out these immediate emergency activities and use WHO-type emergency kits designed to meet needs during the first weeks after a disaster.

It is in the post-emergency phase—a few weeks after the acute phase of the emergency is over—that technical support should be provided by pharmaceutical experts to the health authorities of the countries receiving aid. The objective is to assess what the actual needs for drugs are, as well as drug storage needs, drug distribution needs, and training needs for local health professionals. Consideration should also be given to assessing the capabilities of local suppliers so as to direct procurement towards local purchases rather than imports, which are likely to weaken the local economy.

It is very difficult for a recipient to refuse a donation that has already arrived. Furthermore, the impact of coordination in the field is minimal because it comes too late. It is therefore necessary to be proactive and make good drug donation practices mandatory for all donor organisations. Since the Guidelines for Drug Donations are not observed today, they should be included in the national drug policy of countries and be internationally regulated as a public health protection measure.