

# AN INITIAL SURVEY OF UNUSED & EXPIRED MEDICINE TAKE-BACK SCHEMES IN THE EUROPEAN UNION

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## Introduction

Unused & Expired medicines can arise for a number of reasons, and although they are not thought to represent the dominant source for environmental residues of human pharmaceuticals their inappropriate disposal can make a contribution to environmental concentrations. Although they make only a small contribution, inputs from unused & expired medicines confer no direct benefit to the patient and they should be minimised as far as is practicable, taking into account risks to the environment and human health.

Unused & expired medicines should be returned to collection systems for destruction, or, where such schemes are not in place, they should be disposed in the normal household waste after taking appropriate precautions to prevent misuse. They should never be flushed into the drainage system.

Under the provisions of current European Union (EU) legislation<sup>1</sup>, all EU Member States must establish collection schemes to recover and safely dispose of unused & expired medicines. The European Federation of Pharmaceutical Industry Associations (EFPIA) carried out a survey of the Member States in 2007 using a questionnaire approach to provide information on the performance of these schemes.



## Methodology

In 2007 EFPIA sent a short questionnaire to the national pharmaceutical trade association in each of the 27 EU Member States. This asked for information about national schemes for the return of unused & expired medicines. This included the scope of any scheme in terms of what was returnable and from whom, how the scheme was managed and funded, the annual operating costs and the quantity of unused & expired medicines recovered.

Completed questionnaires were received from 22 of the Member States.

## Results

### Scope

a) Countries with unused & expired medicines recovery schemes			
Austria	Belgium	Czech Republic	Denmark
Estonia	Finland	France	Germany
Hungary	Ireland	Italy	Lithuania
Netherlands	Poland	Portugal	Slovakia
Spain	Sweden	United Kingdom	
b) Countries without unused & expired medicines recovery schemes			
Bulgaria	Cyprus	Greece	Latvia
Luxembourg	Malta	Romania	Slovenia

Schemes existed in 19 countries, mainly co-ordinated nationally but at a local level in the five highlighted above. Most schemes (11) are managed by local pharmacies and the majority of returned material is incinerated

Materials Accepted by scheme	No	Available to:	No
Prescription Drugs	17	Patients	17
OTCs	15	Retirement Homes	7
'Recreational' Drugs (Cocaine, cannabis etc)	9	Hospitals	4
Needles	7	Pharmacies	8

The recovery schemes required by Article 127b<sup>1</sup> are wide ranging, but the focus of this survey was narrower as shown in the table above. Some of the schemes accepted 'recreational' drugs and some were available to a wider range of users.

Note: some of the more detailed information was not available from some countries.

## Effectiveness

We tried to identify, for each scheme, how much unused & expired medicine was recovered, what percentage of the total did this represent, how much did the scheme cost and how was the cost recovered? The answers, in general, were not very enlightening. In most cases the information was either not collected or was not available to the national association. Consequently much of the data resulted from estimated data and, not surprisingly, showed a great deal of variation.

**Recovery ( 8 countries) 3,400 to 13,000 tonnes/ annum**  
**Effectiveness ( 5 countries) 1% - 80% (in general >50%)**  
**Cost ( 7 countries) €2.5m to €17m per annum**

In six countries all the costs were paid by the industry. However, the cost data was very unclear, particularly with respect to which costs were included. In general cost per tonne of unused & expired medicines recovered ranged from €400 to €4000.

The most reliable information comes from CYCLAMED in France which has been in operation since 1994 and recovers 13,000 tonnes of material (including packaging) per year at a cost of €5.2m. This is estimated to represent 80% of the available material.



**Note: This survey data needs to be used with considerable care.**

*It came from a short questionnaire, and subsequent follow-up questions were only asked to deal with obvious contradictions.*

*Some of the information was unavailable and consequently the data should only be used to provide a 'snapshot' of the situation in the European Community in 2007 soon after its last major expansion.*

## Conclusions

- Most EU Member States now have systems in place to collect unused & expired medicines
- There is a broad diversity in the scope, operation, funding and costs of these schemes
- Costs of the schemes range from €400 to €4000 per tonne of material destroyed.
- A total of 19,000 tonnes of medicines (inc. packaging) was recovered in 2006 from eight countries. 13,000 tonnes came from France.
- It is estimated that most schemes recover >50% of the medicines available but validation of these figures is questionable.

## Reference

<sup>1</sup> EU Directive 2001/83 as amended (Article 127b)