



# Limits on Analgesic Packaging

## Program Description

In response to an increasing number of self-poisonings with analgesics (acetaminophens and salicylates) in the United Kingdom, Parliament passed legislation in 1998 limiting the pack sizes of these drugs. Before the legislation, pharmacies could sell unlimited amounts of analgesic tablets. After legislation, pharmacies were limited to 32 tablets per sale and non-pharmacy outlets were limited to 16 tablets per sale. In addition to packaging limits, specific printed warnings about the dangers of overdose with these analgesics were included with all sales.

## Evaluation Design and Outcomes

A naturalistic design, with data collected over six years, was used to examine the effects of limiting the number of analgesic tablets available for sale at any one time. Outcome variables included suicide deaths from poisoning with acetaminophen, salicylates, and ibuprofen; admissions to liver units, listings for liver transplantation due to paracetamol, non-fatal self-poisonings with analgesics and average number of analgesic tablets taken; and sales figures for analgesics.

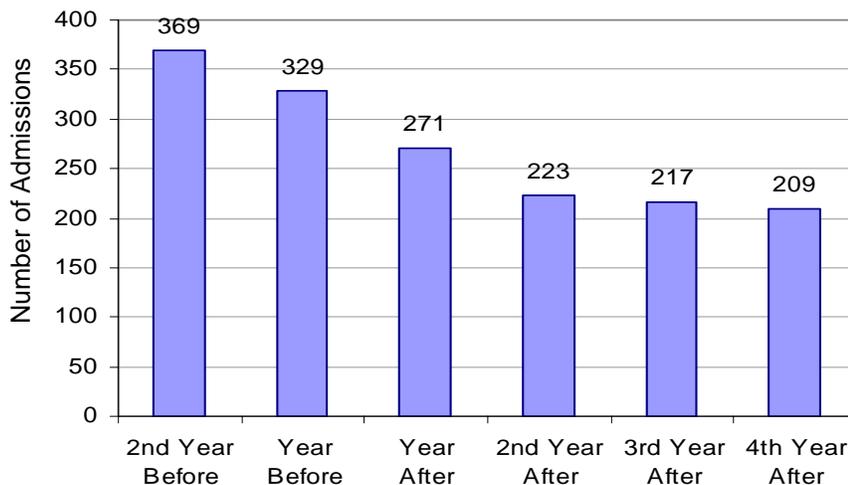
Analyses demonstrated statistically significant decreases in rates of acetaminophen and salicylate self-poisonings (22%), hospital admissions for acetaminophen poisoning (see Figure 1), listings for liver transplants following acetaminophen poisoning (31%), and actual liver transplants following acetaminophen poisoning (36%).

## SPRC Classification

Effective

<b>Program Characteristics</b>
Intervention Type <b>Environmental Strategy</b>
Target Age <b>12 +</b>
Gender <b>Female &amp; Male</b>
Ethnicity <b>Multiple</b>
IOM Category <b>Universal</b> Selective Indicated

Figure 1: Admissions for paracetamol poisoning at six representative hospitals before and after packaging legislation



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## **Generalizability**

The study was conducted in the United Kingdom. Self-poisoning, however, is the leading method of suicide attempts in the United States (approximately 216,000 cases in 2001). The evaluation looked at rates of self-poisonings for ages 12 and above.

## **Implementation Essentials**

The one essential is legislation to limit the number of analgesics available for sale at any given time.

## **Targeted Protective and Risk Factors**

Limits On Analgesic Packaging impacts the following risk and protective factors that have been targeted by the *National Strategy for Suicide Prevention* for the reduction of suicide in the United States.

### ***Increased Protective Factors***

Restricted access to highly lethal means of suicide.

### ***Decreased Risk Factors***

Easy access to lethal means.

## **Program Costs**

The cost is born by pharmaceutical companies to retool packaging.

## **Program Contact Information**

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## **References**

Hawton, K. (2002). United Kingdom legislation on pack sizes of analgesics: Background, rationale, and effects on suicide and deliberate self-harm. *Suicide and Life-Threatening Behavior*, 32(3), 223-229.

Hawton, K., Simkin, S., Deeks, J., Cooper, J., Johnston, A., Waters, K., Arundel, M., Bernal, W., Gunson, B., Hudson, M., Suri, D., and Simpson, K. (In Press). United Kingdom legislation on analgesic packs: Before and after study of long-term impact on poisonings. *Unpublished manuscript*.