

# Is Methylone a new public health threat in Spain?

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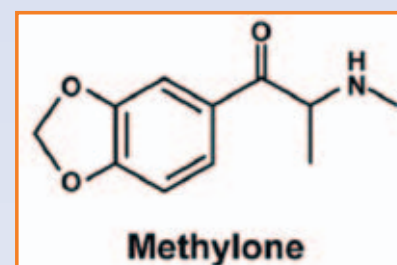
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## Introduction

Due to the continuous search for new, legal, less expensive, and more powerful highs by drug users, the synthesis of novel cathinone derivatives has become a fruitful industry, leading to a fast emergence of new alternative substances every year. Methylone (3,4-methylenedioxy-N-methylcathinone) is one of the substances that rapidly emerged as the main ingredient of 'bath salts', becoming readily accessible on the Internet. This fact has arisen concerns about its potential harmfulness.



## Objectives

The aim of the present study is to analyze the presence of Methylone in samples delivered to a harm reduction facility from 2014 to 2015 in Spain.

## Material and methods

A total of 8,324 samples were assessed from June 2014 to May 2015. Only those samples acquired as methylone were studied. They were analyzed by Energy Control, a Spanish harm reduction non-governmental organization that offers the possibility of analyzing the substances that users report. Analysis was done by Gas Chromatography-Mass Spectrometry.

## Results

Ten users reported to have acquired methylone (0,12%). The most used source for acquiring it was the Internet (60%). Other sources included a friend or relative (10%), home-delivered (10%) or undetermined (20%) (**Figure 1**). There was no peak of consume as 50% were acquired in 2014 and 50% in 2015 (**Figure 2**).

Figure 1 - Sources from where methylone was acquired

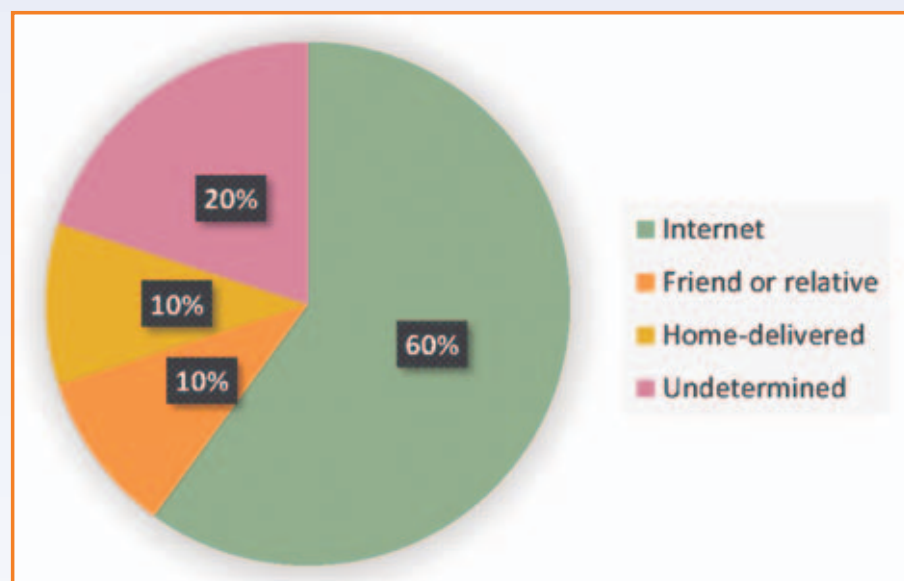
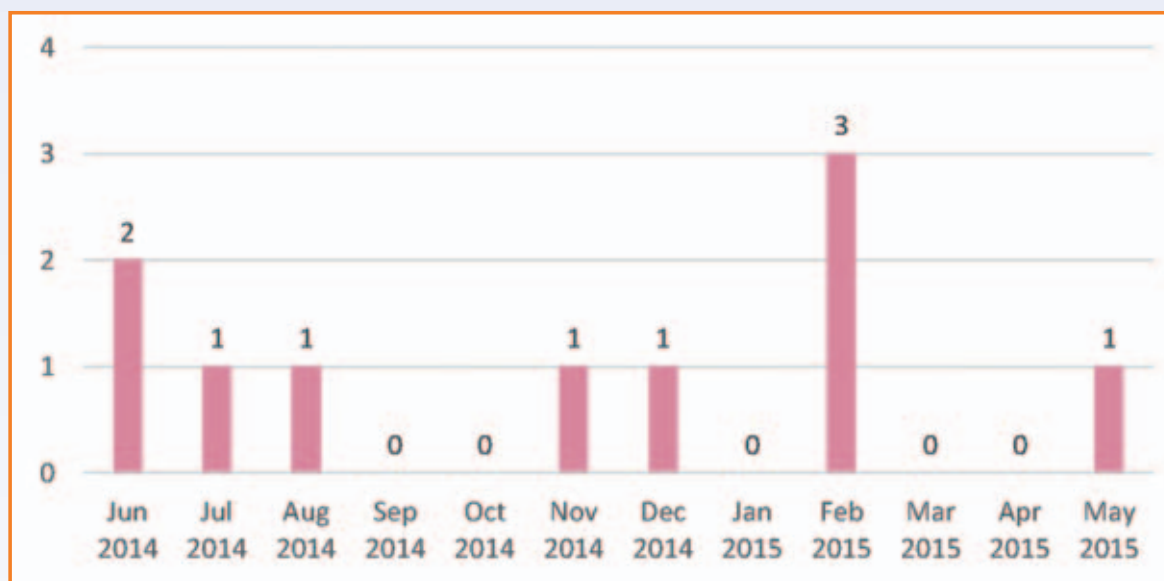


Figure 2 - Number of samples sold as methylone per month from June 2014 to May 2015



## Conclusion

According to the results, the presence of methylone in our samples has been very low in Spain until 2015.

## Bibliography

1. Valente M, Guedes de Pinho P, Bastos M, Carvalho F, Carvalho M. Khat and synthetic cathinones: a review. Arch Toxicol (2014) 88:15–45.
2. Karila L, Megarbane B, Cottecin O, Lejoyeux M. Synthetic Cathinones: A New Public Health Problem. Curr Neuropharmacology (2015).
3. German C., Fleckenstein A., Hanson G. Bath salts and synthetic cathinones: An emerging designer drug phenomenon, Life Sciences (2013).
4. Papaseit E., Farré M., Schifano F., Torrens M. Emerging drugs in Europe. Current Opinion in Psychiatry, 27 (4), 243-50 (2014).

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