



Title:	Intentional and Unintentional Prescription Stimulant Exposures in Italy, Germany and the United States
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Abstract:

Background: Stimulant abuse in the US is reportedly rising yet abuse in other countries is not well studied. This study provides abuse rate data for two stimulants over a 5 year period in Italy, United States (US) and Northwest Germany.

Methods: Human exposures to methylphenidate and amfetamines from 2007-2011 were obtained from Milan and Göttingen PCs. US data were obtained from PCs participating in the RADARS® System. PCs in all 3 countries manage calls from healthcare providers as well as the public. Milan PC handles 65-70% of all calls in Italy. Rates are expressed as number of exposures per 100,000 population separately for intentional and unintentional exposures. Intentional exposures are those with a reason of suicide, abuse, misuse, and unknown intentional. Unintentional exposures include unintentional general, unsupervised ingestions and therapeutic errors.

Results: In Italy, trends for amfetamines and methylphenidate for both intentional and unintentional exposures showed no clear trends over the 5 year time period. Since 2009-2010 amfetamine drugs were gradually retired as prescribed drugs in Italy. In Northwest Germany, amfetamine exposure trends were variable with no change in the rates of intentional or unintentional exposures from 2007 to 2011. For Methylphenidate intentional exposures rates for 2011 were 32% increased from 2007 levels and unintentional exposures were 58% increased from 2007 levels. In the US increasing rates are seen for both intentional and unintentional amfetamine and methylphenidate rates.

Conclusion: Amfetamine exposures reported to PCs appear to be on the rise only in US, not Italy or Northwest Germany. However, intentional and unintentional methylphenidate exposures reported to PCs appear to be on the rise in US and Northwest Germany. Stimulant abuse does not appear to be a pressing issue in Italy based upon calls to PCs. Transatlantic data collection is possible with comparably few resources.

Country	Exposure Type	<u>Exposures/100,000 population</u>					% Change 2007-2011
		2007	2008	2009	2010	2011	
Amphetamine							
Germany	Intentional	0.023	0.015	0.015	0.030	0.023	0.0
Italy		0.010	0.007	0.007	0.005	0	-100
United States		0.678	1.455	1.683	2.033	2.168	219.9