





Transcrime Research in Brief

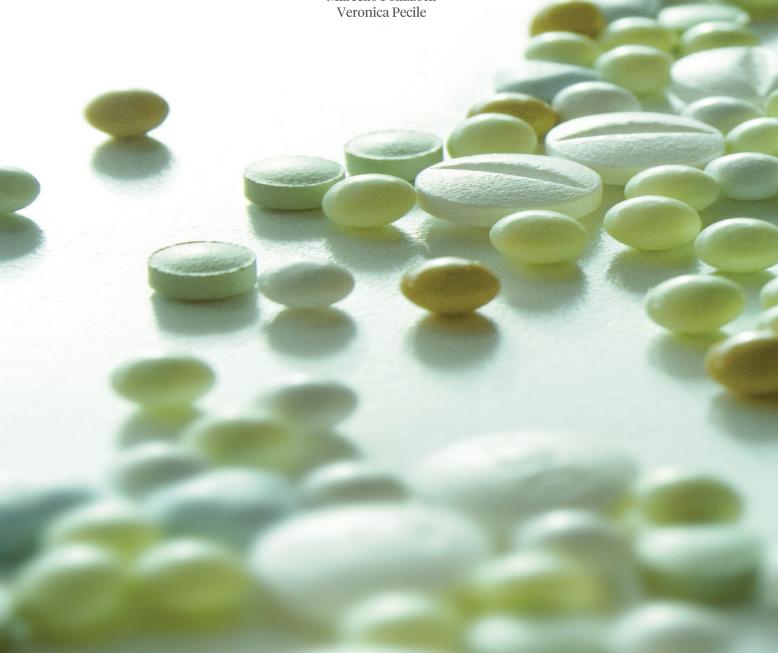
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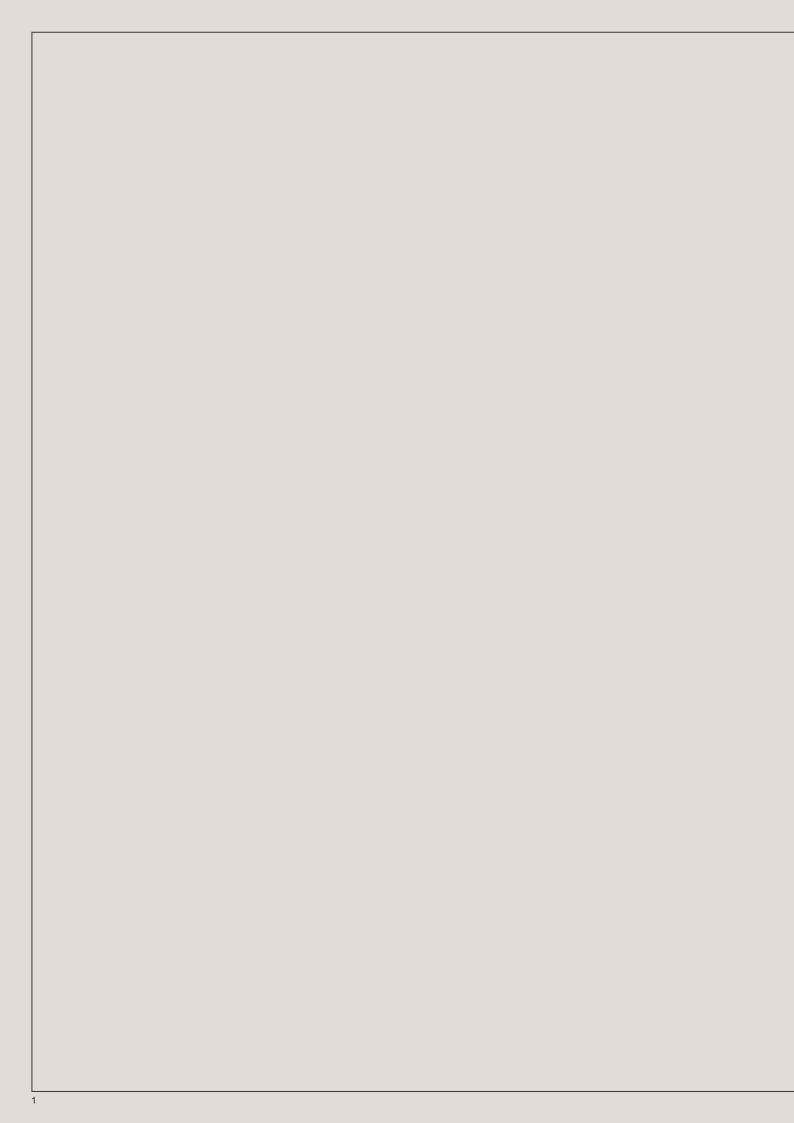
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The theft of medicines from Italian hospitals

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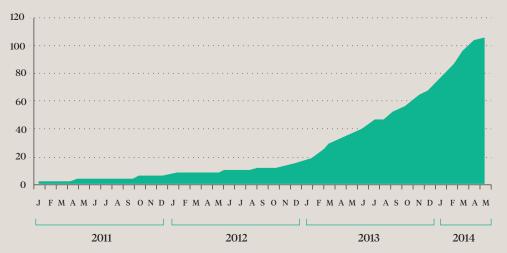


- In recent years, the theft of medicines from Italian hospitals has emerged as a booming criminal phenomenon.
- This issue represents a serious threat to people's health, the national budget, companies' revenues and legal competition.
- However, studies concerning theft of medicines are lacking, as most research focuses only on the counterfeiting of medicines
- In 2014 Transcrime published the first systematic and scientific attempt to analyse the theft of medicine from Italiar hospitals.¹
- This essay summarises and provides updates on the results of that study.
- Transcrime is active in analysing emerging crime problems and illicit markets for suggesting preventive interventions and effective

- This research relies on data on thefts of medicines retrieved from online newspaper articles and other media reports from 2006 to May 2014.
- This choice was due to the lack of scientific research and official data available.
- During the period considered, the media reported 110 cases of thefts of medicines from Italian hospitals (37 only in the last five months considered) concerning, on average, almost one hospital out of 10 (Figure 1).
- A total of 44% of the thefts happened during the winter months.

- Thefts of medicines caused a total economic loss of more than 22 million EUR." This figure is likely to be underestimated due to underreporting of smaller-scale thefts, and managers' propensity to address crimes internally for avoiding reputational damages.2
- On average, each theft produced a loss of about 250 thousand EUR. This value may be overestimated because the media are likely to focus more on the thefts of medicines implying a significant economic loss.
- Although the use of open sources may generate some inaccuracies, both these figures highlight the relevance and the economic impact of this crime.

Figure 1. Cumulate number of thefts of medicines from Italian hospitals. Years 2006-2014 (May)



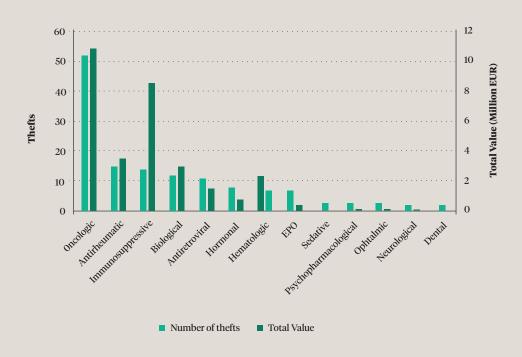
i 105 cases report the date of the theft. ii 93 cases report the stolen value.

2. The types of medicine stolen

- Oncologic medicines, stolen in 52 cases, were the most attractive type of drugs to criminals.
- Immunosuppressive, antirheumatic and biological pharmaceuticals were the other most frequently stolen drugs (Figure 2).
- All of these types of medicines are high-priced ones, which can yield higher profits when sold on the illegal market or re-inserted into the legal market.
- Most of thefts for which the types of the medicines stolen were reported involve class H drugs.

- In Italy, National Health Care System (NHCS) fully reimburses class H drugs. This happens in many other EU MS.
- Moreover, class H drugs involve complex prescription procedures, and in most cases, only authorised and specialised medical structures can administer them.
- These evidences suggest that stolen class H medicines may be sold back to legal suppliers, hospitals or clinics, in Italy or abroad after being 'laundered' by fictitious wholesalers (see sections 5 and 6).

Figure 2. Number of thefts and total value stolen by type of medicines



 $^{^{\}mathrm{iii}}$ 93 cases report the types of medicines stolen.

3. Geographical distribution of the thefts

- Thefts of medicines occurred throughout the entire country, but Campania and Apulia are the regions of greatest concern, representing 45% of cases alone.
- The graph and the map display the geographical distribution of thefts of medicines (Figure 3 and 4).
- The eastern and southern regions are the most exposed Italian areas. The first ones because they are close to possible destinations of stolen drugs (e.g. Eastern Europe and Greece). The others probably due to the presence of indigenous organized crime groups.
- In general, thefts mostly happened in regions where organized crime groups are present—in particular, Camorra and the Apulian OC. The correlation with the Italian mafias' territorial presence is positive and significant (R = 0.47; p< 0.05).3
- These groups seem to have the knowledge required to identify, steal, store, transport and place medicines on the illegal markets.
- Some hospitals suffered more than one crime; i.e., the Federico II of Naples suffered five thefts between 2006 and 2013.
- Thefts mostly happened in larger and complex hospitals, where there may be a high turnover among staff and weaker monitoring.
- More than one theft out of four (28%) involved fake personnel or entrance without breakings. This suggests that criminals could rely on insiders or corrupt medical staff.[™]

Figure 3. Number of thefts by regions from 2006 to 2014 (May)



Figure 4. Number of thefts by provinces from 2006 to 2014 (May)



 $^{^{\}mbox{\scriptsize iv}}$ 79 cases report information on the thieves' modus operandi.

4. Crime and medicines: the reasons for an attraction

- Medicines have been a traditional object of criminals' attraction.
- Pharmaceutical crime includes a variety of illicit conducts: counterfeiting and falsification of medical products, their packaging and documentation, theft, fraud, illicit diversion, smuggling, trafficking and the illegal trade of pharmaceuticals.⁴
- Medicines are appealing to criminals for many reasons.
- First, drugs are primary goods, enjoying a growing demand because of the ageing population.⁵
- Second, due to medicines' generally high prices, criminals can gain huge profits when re-selling medicines by exploiting traditional or new marketplaces, such as the Web, or through parallel trade channels.⁶

- Finally, they are quite easy to conceal and transport.⁷
- The illegal supply of medicines includes both counterfeit medicines and stolen medicines.
- According to available estimates, counterfeits affect about 6% of the total value of the global pharmaceutical market and 10% of the European pharmaceutical market.⁸
- By contrast, no data are available about the theft of medicines, which affects Italy and other countries worldwide.⁹
- In general, the theft of medicines is a lucrative criminal activity that overlaps the legal market and is able to attract organized criminal groups because of its high profitability and low risk.
- Indeed, the number of arrests is extremely low, and the penalties are lower than those of similar illicit activities (e.g., drug trafficking).

5. The destinations of the stolen medicines

- A variety of factors determines the demand for stolen medicines.
- A share of the demand comes from individuals who are willing to buy medicines at a lower price or pharmaceuticals not reimbursed by the Italian NHCS.¹⁰
- Individuals and organizations in countries experiencing problems associated with legal supply of legal drugs may be interested in medicines stolen abroad.¹¹
- Another possible destination is their re-use on the illegal market. This is the case for the synthesis of illegal drugs or sport doping¹² and illegal healthcare structures.¹³
- Stolen medicines can also re-enter the legal trade through fictitious wholesale companies or corrupt brokers, and they can be sold to high-price countries or exported back to Italian hospitals and pharmacies (see next section).
- This is possible due to loopholes in traceability systems and the high liberalisation of the pharmaceutical market.¹⁴

Figure 5. The possible destinations of stolen medicines



6. The Herceptin case"

 An ongoing investigation of the Italian Carabinieri and AIFA found anti-cancer medicines (Herceptin) and other pharmaceuticals stolen in Italy sold to legal suppliers, including pharmacies, in several EU MS (the UK, Germany, Netherlands, Spain and Portugal).¹⁵

Countries where involved pharma wholesalers are registered

Countries where medicines were stolen

- Countries where stolen medicines were found on the legal market
- were found on the legal market Netherlands, Spain and Portugal). 15 • Evidence shows the involvement of organized criminal groups (including also the Camorra) and of pharmaceutical wholesalers registered in Italy, Latvia, Slovakia, Hungary, Slovenia and Romania that were used for the "laundering" of the stolen medicines. FINLAND LATVIA GERMANY SLOVAKIA ROMANIA SPAIN

Conclusions

- This study shows that the theft of medicines from Italian hospitals is ar extremely lucrative activity that has boomed in recent years.
- It usually requires a high level of organization and is highly concentrated in time (colder months) and space (areas with a strong mafia presence or on the eastern border).
- The analysis shows this crime's relevance from economic and health points of view.
- The findings suggest that organised crime groups may be involved, shifting from more risky or less profitable illicit markets to this criminal activity.
- Internal or foreign (e.g., Eastern European) black markets could be destinations for the stolen medicines.

- However, evidences also suggest that medicines can re-enter the legal circuit, exploiting parallel trade-channel loopholes.
- New analyses are needed in order to better describe this phenomenon in other countries, to focus not only on hospitals but also on other vulnerable medicine supply chain points and to identify criticalities in regulation, which may create crime opportunities.
- These new researches could provide risk analyses that can orient preventive interventions or countermeasures.
- These objectives can be reached only though a stronger partnership between law enforcement agencies, public authorities, private actors and researchers.



- 1. Riccardi, M., Dugato, M., Polizzotti, M., The Theft of Medicines from Italian Hospitals (Milan-Trento: Transcrime, 2014).
- Marco Dugato et al., The Crime against Businesses in Europe: A Pilot Survey, ed. Marco Dugato (European Commission, 2013); Giulia Mugellini and Stefano Caneppele, Le Imprese Vittime Di Criminalità in Italia, ed. Giulia Mugellini, Transcrime Report 16 (Milan: Transcrime - Università Cattolica del Sacro Cuore & Università degli Studi di Trento, 2012).
- 3. Transcrime, Progetto PON Sicurezza 2007-2013 (Rome: Ministero dell'Interno, 2013).
- 4. Interpol, Pharmaceutical Crime (Lyon: Interpol, 2012).
- 5. Eurostat, *Population Structure and Ageing, Eurostat: Statistics Explained*, 2012, http://ec.europa.eu/eurostat/statistics-explained/index.php/Main_Page.
- 6. Vander Beken, T., The European Pharmaceutical Sector and Crime Vulnerabilities (Antwerp: Maklu Publishers, 2007).
- 7. Transcrime, FAKES Fighting against Brand Counterfeiting in Three Key European Member States. Towards a More Comprehensive Strategy (Milan-Trento: Transcrime, 2010).
- 8. Ibid.; Council of Europe, Counterfeit (fake) Medicines, 2012.
- 9. Martinez Teran, J., "La Mafia de Los Medicamentos," ParaTi, August 2008, http://www.parati.com.ar/lo-nuevo/actuali-dad/la-mafia-de-los-medicamentos/9966.html; Cruz Martinez, A., "Constante, El Robo de Farmacos En El Sector Publico, Acepta El Issste," La Jornada, October 30, 2011; Caruso, L., "Pirateria Del Asfalto. Aumentaron Los Robos de Medicamentos Y Alimentos," Clarin, February 12, 2012, http://www.clarin.com/policiales/Aumentaron-robos-medicamentos-alimentos_0_644935630.html; El Diario, "Dirigian Desde Cereso Robo de 7,4 Mdp En Medicamentos.," El Diario, November 20, 2013, http://diario.mx/Estado/2013-11-20_6484f020/dirigian-desde-cereso-robo-de-74-mdp-en-medicamentos.
- 10. Riccardi, M., Dugato, M., Polizzotti, M., The Theft of Medicines from Italian Hospitals.
- 11. Sukkar, E. & Smith, H., "Panic in Greek Pharmacies as Hundreds of Medicines Run Short," *The Guardian*, February 27, 2013, http://theguardian.com/world/2013/feb/27/greece-blames-drug-companies-shortages; Tamburini, F., "Grecia, Centinaia Di Farmaci Bloccati Dalle Multinazionali. Sanità in Ginocchio.," *Il Fatto Quotidiano*, March 29, 2013, http://www.ilfattoquotidiano.it/2013/03/29/grecia-centina-ia-di-farmaci-bloccati-dalle-multinazionali-sanita-in-ginocchio/526250/.
- 12. Lodewijkx, H. & Brouwer, B., "Some Empirical Notes on the Epo Epidemi in Professional Cycling," Res Q Exerc Sport, 2011.
- 13. De Luca, M., "Così Sta Morendo Una Legge. In Italia Torna L'aborto Clandestino," *La Repubblica*, May 23, 2013, http://inchieste.repubblica.it/it/repubblica/rep-it/inchies-ta-italiana/2013/05/23/news/aborti_obiettori_di_coscienza-59475182/.
- 14. Riccardi, M., Dugato, M., Polizzotti, M., The Theft of Medicines from Italian Hospitals.
- 15. AIFA, "Caso Herceptin: Identificati Ulteriori Medicinali Contraffatti. Le Indagini Individuano I Grossisti E Gli Operatori Coinvolti," May 19, 2014, http://www.agenziafarmaco.gov.it/it/content/caso-her-ceptin-identificati-ulteriori-medicinali-contraffatti-le-indagini-individuano-i-groshttp://www.agenziafarmaco.gov.it/it/content/caso-herceptin-identificati-ulteriori-medicinali-contraffatti-le-indagini-individuano-i-gros.