

# Information about drugs in the Spanish press (2007-2016): a quantitative content analysis



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## Background

Information about drugs is critical to empower citizens to make good health decisions. Quantity and quality of this information in the press have not always been properly analysed.

This study classifies and analyses quantitatively news about drugs in the Spanish press.

## Methods

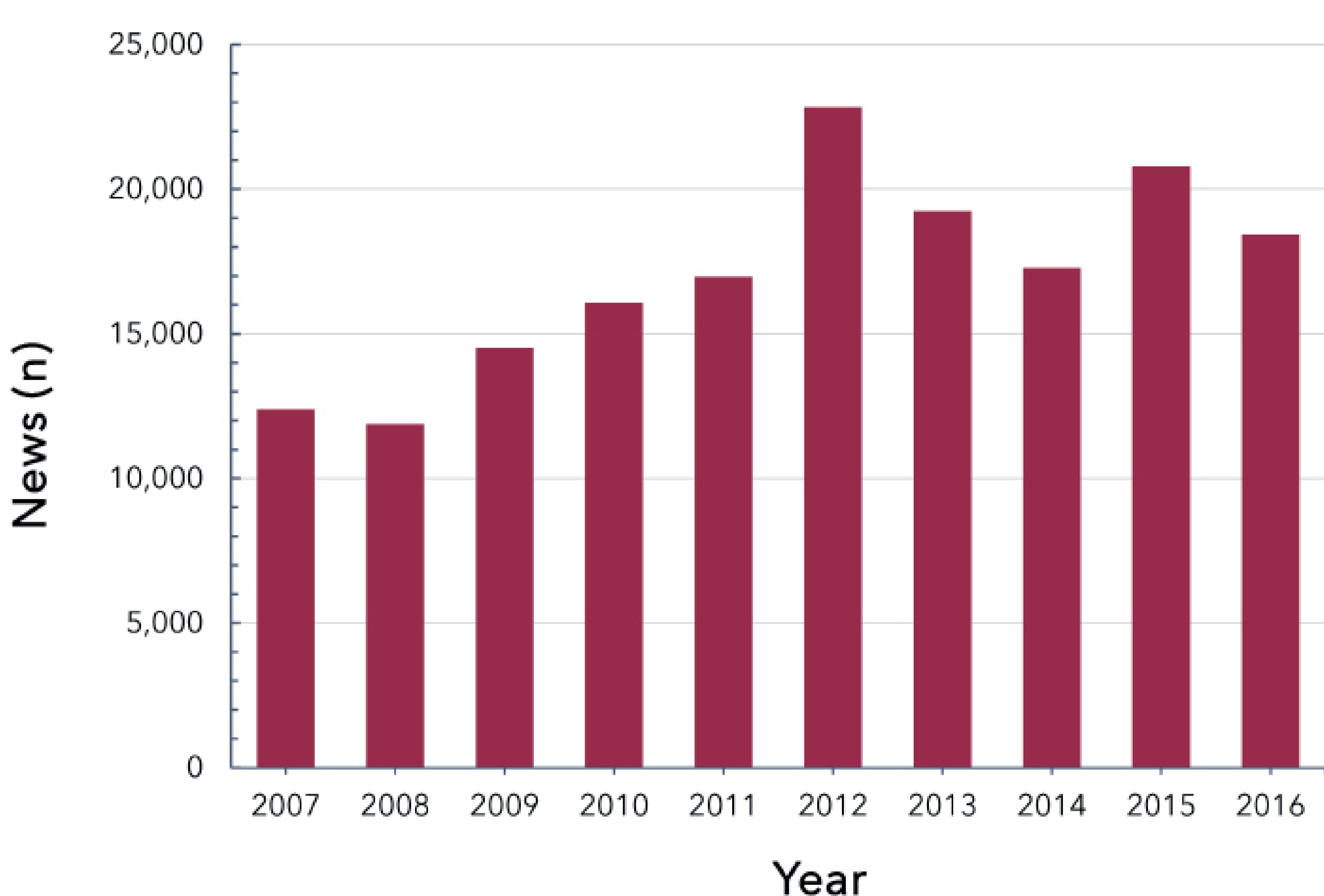
We conducted a content analysis of 22 Spanish publications, including 15 general-interest newspapers, 4 news agencies, 2 business newspapers and 1 professional newspaper. The search was performed in the Factiva database for the period 2007-2016. Among other aspects, we analysed the texts by source, topic, institutions, types of drugs and authors.

In addition, we reviewed the texts about drugs published by the science news agency SINC\* (2008-2016) to calculate the relative weight of news on drugs compared to all the biomedical and science news.

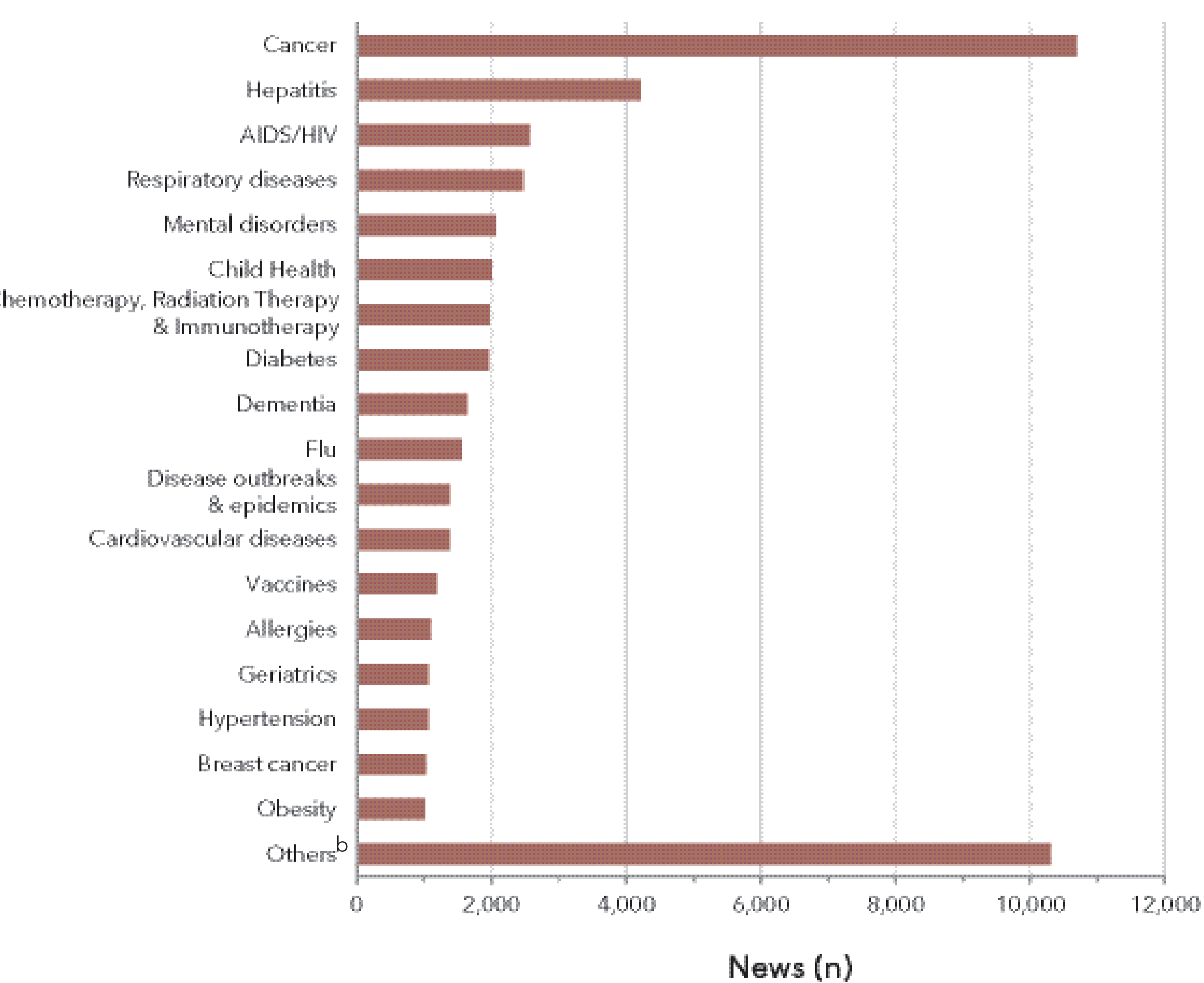
\*SINC is the Spanish public agency specialised in science, technology and innovation information (*Servicio de Información y Noticias Científicas, Information and Scientific News Service*).

## Results

**Figure 1.** Number of news addressing drug information published through news agencies and newspapers in Spain between 2007 and 2016 (n=170,382).



**Figure 2.** Most cited health topics addressed in the news on drug information (n=170,382) published in Spain between 2007 and 2016<sup>a</sup>.



<sup>a</sup>An overall of 50,598 (29.70%) news on drug information addressed health topics. <sup>b</sup>Others category includes the following topics: abortion, Alzheimer's disease, asthma, ictus, malaria, mood disorders, movement disorders, multiple sclerosis, tobacco, transplants, and vector diseases.

An overall of 32,486 (19.07%) news on drug information addressed corporate topics. The most common corporate topics were: new product approvals (n=3,651; 2.14%), new products and services (2,346; 1.38%), and corporate crimes (2,237; 1.31%).

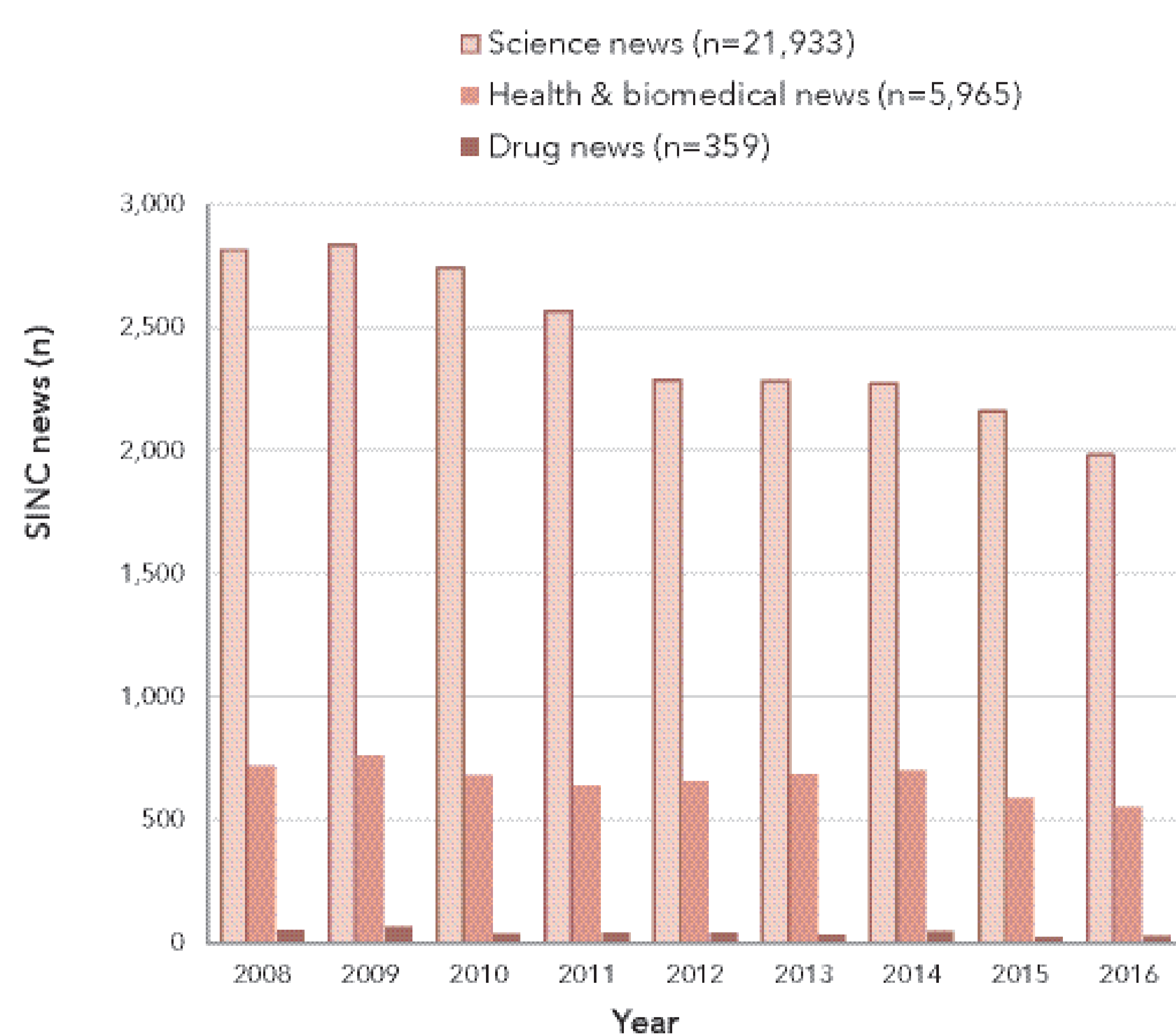
The most cited institutions were: Zeltia (n=1,262; 0.74%), Novartis (887; 0.52%), Almirall (785; 0.46%), Roche (777; 0.46%), Sanofi (711; 0.42%), in the pharma group; and the University of Navarra (n=698; 0.41%), the University of Granada (500; 0.29%), the University of Barcelona (417; 0.24%), the Complutense University of Madrid (416; 0.24%), and the Menendez Pelayo International University (398; 0.23%).

**Table 1.** News with drug information (n=170,382) published in Spain between 2007 and 2016, classified by source.

Sources	News (n)	%
<b>News agencies</b>	<b>98,275</b>	<b>57.68<sup>a</sup></b>
Europa Press	80,495	81.91 <sup>b</sup>
EFE	16,374	16.66
Reuters	766	0.78
Colpisa	640	0.65
<b>Spanish newspapers</b>	<b>72,107</b>	<b>42.32<sup>a</sup></b>
<i>Professional newspaper</i>		
Diario Médico	13,755	100.00 <sup>d</sup>
<i>General-interest newspapers</i>		
La Voz de Galicia	7,920	14.68 <sup>e</sup>
ABC	7,149	13.25
El País	5,982	11.09
La Verdad	5,102	9.45
El Mundo	4,836	8.96
La Vanguardia	3,098	5.74
El Periódico	3,007	5.57
Others	16,870	31.26
<i>Business newspapers</i>		
Expansión	2,376	54.15 <sup>f</sup>
Cinco Días	2,012	45.85

<sup>a</sup>Percentages based on the total of news with drug information retrieved from Factiva database (n=170,382). <sup>b</sup>Percentages based on the news retrieved from news agencies (n=98,275). <sup>c</sup>Percentages based on the news retrieved from Spanish newspapers (n=72,107). <sup>d</sup>Percentage based on the news retrieved from professional newspapers (n=13,755). <sup>e</sup>Percentage based on the news retrieved from general-interest newspapers (n=53,964). <sup>f</sup>Percentage based on the news retrieved from financial newspapers (n=4,388).

**Figure 3.** News on science published by SINC agency between 2008 and 2016<sup>a,b</sup>.



<sup>a</sup>The three columns within each year represent, from left to right: 1) the overall number of news on science, 2) the number of news on health and biomedicine published within the science group, and 3) the number of news on drugs included in the previous groups. <sup>b</sup>News on drugs (n=359) represent the 6.02% of the health and biomedical news (n=5,965) and the 1.64% of all the news (21,933) on science published by SINC between 2008 and 2016.

## Conclusions

The number of news on drugs has stabilized after a few years of growth.

News agencies and professional press publish more news than general and business newspapers.

Regarding SINC agency, news about drugs represents 6% of health and biomedical news, and 1.6% of scientific news.

More quantitative and qualitative studies are needed to know the real situation of information about drugs in the press.

## References

- Bosch F, Serés E. From scientific advances to public health action: The crucial role of science dissemination. *J Epidemiol Community Health*. 2015;69(1):1-2.
- Casino G. Los medicamentos en los medios de comunicación. Evaluación crítica de la situación actual. En Baños JE, Bigorra J, editores. *La proyección social del medicamento*. Monografía del Dr. Antonio Esteve N°33. Barcelona: Fundación Dr. Antonio Esteve; 2007. pp. 67-74.
- Catalán-Matamoros D, Peñafiel-Saiz C. The use of traditional media for public communication about medicines: A systematic review of characteristics and outcomes. *Health Communication*. 2017. DOI: 10.1080/10410236.2017.1405485.
- Francescutti P. La información científica en los telediaros españoles. Cuadernos Fundación Dr. Antonio Esteve N°21. Barcelona: Fundación Dr. Antonio Esteve; 2007. Available at: <http://www.esteve.org/telediaros/>.
- Moynihan R, Bero L, Ross-Degnan D, Henry D, Lee K, Watkins J, Mah C, Soumerai SB. Coverage by the news media of the benefits and risks of medications. *New Eng J Med*. 2000;372(22):1645-50.
- Schwitzer G. How do US journalists cover treatments, tests, products, and procedures? An evaluation of 500 stories. *PLoS Medicine*. 2008;5(5):700-4. DOI: 10.1371/journal.pmed.0050095.
- Vallano Ferraz A, Llop Rius R, Ferrer Bosch M, Carreras Danés I. Noticias sobre medicamentos en los suplementos de salud de la prensa española. *Medicina Clínica*. 2005;124(19):754-9. DOI: 10.1157/13075448.
- Bosch F, Escalas C, Forteza A, Serés E, Casino G. Lista de comprobación para mejorar la información sobre medicamentos en la prensa: la importancia de informar sobre las fases y la incertidumbre de la investigación. *Revista Española de Comunicación en Salud* (accepted May, 2018).

### Disclosure of Conflict of Interest

Casino G., Serés E. and Bosch F. (the authors) have no COI with regard to the presentation.

## 1. Accepted abstract by the congress organization:

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**Background.** Information about drugs is critical to empower citizens to make good health decisions. Quantity and quality of this information in the press have not always been properly analysed. This study classifies and analyses quantitatively news about drugs in the Spanish press.

**Methods.** We conducted a content analysis of 22 Spanish publications, including 15 general newspapers, 4 news agencies, 2 economic journals and 1 professional journal. The search was performed in the Factiva database for the period 2007-2016. Among other aspects, we analysed the texts by source, topic, institutions, companies, types of drugs and authors. In addition, we reviewed the texts about drugs published by the science news agency SINC (2008-2016) to calculate the relative weight of news on drugs compared to all the medicine and science news.

**Results.** In the identified news (n=170,382), we observed a huge increase from 2007 (n=12,382) to 2012 (n=22,839) and a following stabilization. The main sources were Europa Press news agency (n=80,495, 47.2%), EFE news agency (n=16,374, 9.6%), the professional newspaper Diario Medico (n=13,755, 8.1%), the regional newspaper La Voz de Galicia (n=7,920, 4.6%) and national newspapers ABC (n=7,149, 4.2%) and El Pais (n=5,982, 3.5%). The most common topics in drug information were cancer (n=10,693, 6.3%), hepatitis (n=2,735, 2.4%) and AIDS/HIV (n=2,565, 1.5%), and the most common corporate topics were new product approvals (n=3,651, 2.1%), new products and services (n=2,346, 1.4%) and corporate crime (n=2,237, 1.3%). The most cited pharmaceutical company was the Spanish group Zeltia (n=1,262, 0.7%) and the most cited research centre, the University of Navarra (n=698, 0.4%). In SINC news agency, drug news (n=359) represented 6.0% of medical news (n=5,965) and 1.6% of all science news (n=21,933) in 2008-2016.

**Conclusions.** The volume of information on drugs has stabilized after a few years of growth. News agencies and professional press publish more news than general and economic newspapers. The weight of this information is relatively low in relation to the rest of medical and scientific news. More quantitative and qualitative studies are needed to know the real situation of information about drugs in the press.

## 2. Links:

Casino G, Seres E, Bosch F. Information about drugs in the Spanish press (2007-2016): a quantitative content analysis [Internet]. Abstract accepted at: 18th World Congress of Basic and Clinical Pharmacology; 2018 July 1-6; Kyoto, Japan. Available at: [https://www.micenavi.jp/wcp2018/search/detail\\_program/id:1463](https://www.micenavi.jp/wcp2018/search/detail_program/id:1463)

Casino G, Seres E, Bosch F. Information about drugs in the Spanish press (2007-2016): a quantitative content analysis [Internet]. Poster presented at: 18th World Congress of Basic and Clinical Pharmacology; 2018 July 1-6; Kyoto, Japan. Available at: <https://www.esteve.org/libros/poster-information-about-drugs-in-the-spanish-press-kyoto/>

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