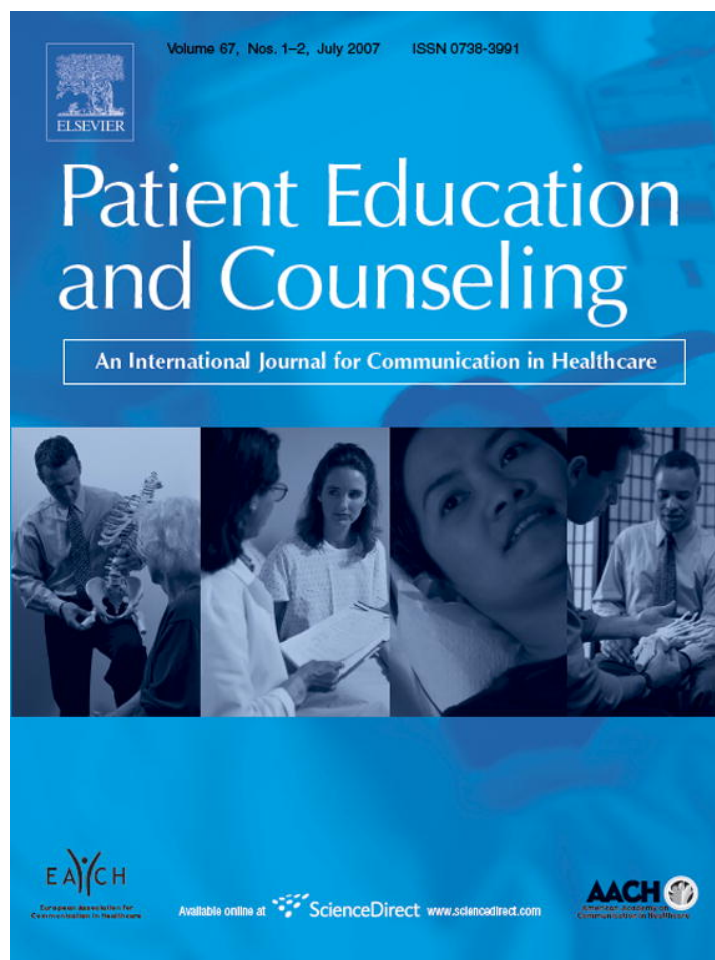


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# How do newspapers deal with health in Sweden? A descriptive study

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## Abstract

**Objective:** Newspapers in Sweden have a high amount of readers compared with other European countries. The purpose of this essay is to analyse the space related to health found in the Swedish newspapers and to discuss what readers consume about health.

**Methods:** This study is based on an observational cross-sectional design. The sample was constituted by daily editions from three major Swedish newspapers selected during 1 month—Svenska Dagbladet, Dagens Nyheter and Göteborgs-Posten. Descriptive analyses was used.

**Results:** The main findings show that newspapers included 2.4% on average of health contents (HC), being “Svenska Dagbladet” the one with most publications (3.3%). HC used to be published within the first pages (median in page 13, main mode in 4). 81.3% of all contents were written by journalists, and writers used sources of information in 73,6%. Most frequent topics were about cancer, alcohol, euthanasia and sick leave at work.

**Conclusions:** “Svenska Dagbladet” is the newspaper publishing more HC and also has more specialised health writers. Different sources are used in the contents like health professionals, professors and politicians. Research is needed on evaluating the quality of health contents.

**Practice implications:** It is a need to increase the number of health specialist journalists and to promote independence when dealing about health.

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**Keywords:** Newspapers; Mass media; Public health; Health education

## 1. Introduction

There is a greater demand and need for accurate, relevant, rapid and impartial public health information by technical and non-technical audiences, and a growing reliance on mass media as the main source of information [1]. The public health community usually looks to the media for support, attention and endorsement and are considered as a primary source of health and science information, even for health professionals [2,3]. On the other hand, they are also seen as an important tool to disseminate health information to the population. There are various types of mass media (magazines, television, internet, newspapers, etc.), this article will analyse the role of newspapers in delivering health information to the population.

It cannot be assumed that new media technologies are superior to traditional media for health communication [4]. Newspapers often deal with health issues in different ways and

might be considered as potential communication resources that individuals, families, and organisations can use to meet crucial needs, such as health care. This print media is one of the primary sources from which individuals learn about risks [5]. A recent study [2] showed that slightly more than one third (36.5%) of health information articles in newspapers contained information to enable readers to take further health action. Distribution of health information through newspapers is a very effective way of reaching the general public. The descriptive analyses of the space related to health in newspapers possibly can show how health information is being delivered, and maybe also how the public receives health messages.

A health content analysis is a useful tool to know how media deliver health messages and the way in which population receive this health information in terms of amount of space related to health issues and formats of this space as articles, editorials, letters, advertisements, visual references, graphics, etc. [6].

### 1.1. The press in Sweden

Sweden is a nation of newspapers and magazine readers [7,8]. In a recent study, it has been seen that newspapers are

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the most believable media in Sweden and can convey health news and breakthroughs more thoroughly than TV or radio, and more quickly than magazines [9]. In all, nearly 90% of adults in a country of nine million inhabitants read at least one newspaper a day, allocating Sweden near the top of worldwide print media consumption statistics [8]. In concrete terms, newspapers are read by 82% of Swedish media consumers [10]. Carina Ihlström [11] concluded, in a comparative study among European countries, that the Swedish audience has the largest proportion of senior readers (11.4% readers are over 55 years), and 53.1% of the Swedish readers are between the ages of 16 and 35. Unlike many other countries where morning papers are purchased at newsstands, Sweden's daily newspaper market is dominated by a large percentage of subscribers to morning newspapers that offer early home delivery, and also the largest proportion of subscribers of newspapers, almost 50%. According to the Swedish Newspaper Publishers' Association [11], 93% of the daily circulation of morning papers is delivered to home subscribers.

This large amount of Swedish readers might make newspapers to become a powerful way to deliver health information, which is, in terms of increasing knowledge, one of the crucial steps to change behaviour [12,13]. Therefore analysing what kind of health information is sent to the population through newspapers is a research topic of great interest.

### 1.2. Purpose and research questions

The purpose of this article is to make a descriptive analyse of the space related to health that has been published in the Swedish newspapers. Few studies have been done in this field [6,14]. The discussion of the results will hopefully bring about a better understanding of how health information is represented and used in the media and will suggest how it might affect to the publics.

This article will attempt to answer the following question: *How do the largest newspapers send health information to Swedes?*

## 2. Methods

### 2.1. Study design

This is an observational and cross-sectional study. It consists in a structured observation selecting aspects of interest in a sample of newspapers that were twice assessed.

### 2.2. Material and methodology

The sample was constituted by full daily editions from the three major Swedish newspapers:

- Dagens Nyheter (DN).
- Svenska Dagbladet (SvD).
- Göteborgs Posten (GP).

The selected period was from the 11 of March to the 11 April 2005, both included. Two days were Easter holidays (25 and 28 of March) and then newspaper were not published in such days. Therefore, the sample was constituted by 90 newspapers, which were printed out during 30 days. One of the researchers trained with media and health communication skills was the reader of all newspapers in order to select everything related to health. A review was done afterwards by the same researcher in order to capture any missed content.

The unit of the analysis is the health content being defined as *all material related to health including text, graphics, tables, etc.* Descriptive statistic was used in the analysis. Once the health content was selected, it was analysed by the research group. The variables selected for analysis may be seen in Fig. 1 being previously used in other similar studies [6,14]. Data collection was constituted from records, and based in an observational model that consists of a carefully review of these newspapers to pick out everything related to health.

The descriptive analysis was done with the data base Access XP. The health contents were obtained by a certain criteria. As said before, only one researcher was in charge of selecting the health contents, and the criteria of selection consisted in those made by two previous studies [6,14].

## 3. Results

Identified items are related to each newspaper that was analysed in terms of date, name and total number of pages. Regarding to the descriptive items they are related to each health content in the following terms: page, author, section where the content was published, whether it has been published in the first or front page that is considered to be the most important one, total space occupied that is related to the physical space that the content takes, the main topic of the content and which sources of information have been outlined through each health content.

### 3.1. Identified items

In 9767 reviewed pages, the health content occupied 238.9 pages, which corresponds to the 2.4% of the total (Table 1).

- Identified items:
  - Newspaper*
  - Date*
  - Total number of pages*
  - Health content (yes/no)*
- Descriptive items:
  - Page*
  - Author (name and position)*
  - Section*
  - Front page (yes/no)*
  - Total space occupied*
  - Topic*
  - Sources of information*

Fig. 1. List of the variables used for the analysis.

Table 1  
Sample information

Newspaper	Editions	Reviewed pages	Health contents (in pages)
DN	30	3598 (36.8%)	65.2 (1.8%)
GP	30	3323 (34.1%)	78.5 (2.3%)
SvD	30	2846 (29.1%)	95.3 (3.3%)
Total	90	9767	238.9 (2.4%)

Table 2  
Data analysed

Newspaper	Units of HC analysed [N (%)]	Pages with HC analysed [N (%)]	Size on average of HC (N, range)
DN	161 (25.9)	65.1 (27.3)	0.4 (0.01–4)
GP	227 (36.5)	78.5 (32.9)	0.3 (0.01–3.7)
SvD	233 (37.6)	95.3 (39.8)	0.4 (0.01–2)
Total	621 (100)	238.9 (100)	0.4 (0.01–4)

Thirty editions were analysed from each newspaper. DN is the newspaper with most published pages (36.8%). In the following analysis, a unit of health content corresponds to each single space analysed. Pages with health contents (HC) correspond to the sum of all spaces occupied with HC. Concerning the size of the health content, 1 corresponds to a full page and 0.5 to a half page (Table 2).

SvD published most units of health contents (n = 233) during the time period in which data were collected and also dedicated most space to health with 95.3 full pages. The average size of a health content was approximately 0.4 that is less than half a page. The largest size of a health content was found in DN which occupied four full pages. All the health contents together covered a total amount of 238 pages were full printed with health related contents which means that on the average, in all the space published in that period, 2.4% covered health information while 97.6% treated of other topics.

3.2. Descriptive items

3.2.1. Section

Newspapers are divided in diverse sections where all contents are placed. Each newspaper has its own list of sections,

Table 3  
Main sections where HC appeared in each newspaper

DN (n)	SvD (n)	GP (n)			
Sweden	38	News	113	Domestic	41
Family	18	Comercials	22	Gothenburg, West Sweden	20
Stockholm	14	Weekend Science	15	Economy–politics	18
Reader’s	12	Abroad	15	Gothenburg	16
Economy	11	Point of view	8	Abroad	13
⋮	⋮	⋮	⋮	⋮	⋮

which varies among others. The HC have been classified regarding the sections where appeared. They show which are the most used for HC and also can explain some relations between health and other disciplines regarding to the nature of the section (see Table 3).

3.2.2. Pages

Regarding to the allocation in pages and considering the amount of HC units in a range between pages 2nd and 98th (the 1st will be analysed later as front page), the median is in page 13th and the main mode is in the 4th. The amount of the HC through the pages is bigger in the first pages (see Fig. 2).

Regarding to the front page, that represents the face of the newspaper, usually shows the main news which are broader presented in the following pages. Eighty-nine (14.3%) HC previously appeared on this page.

3.2.3. Author

The name of the author appeared in 463 HC versus 158 HC. The following table specifies the professional background of the person who signed the health content when he/she expressed his/her profession besides the name. When the author just signed with a name, he/she was categorised as a journalist and others HC were written by press agencies (TT, AFP and Reuters) (Table 4).

3.2.4. Topic

The following table shows the main themes that were presented by HC, which were repeated at least seven times to avoid a long list with uncommon topics (Table 5).

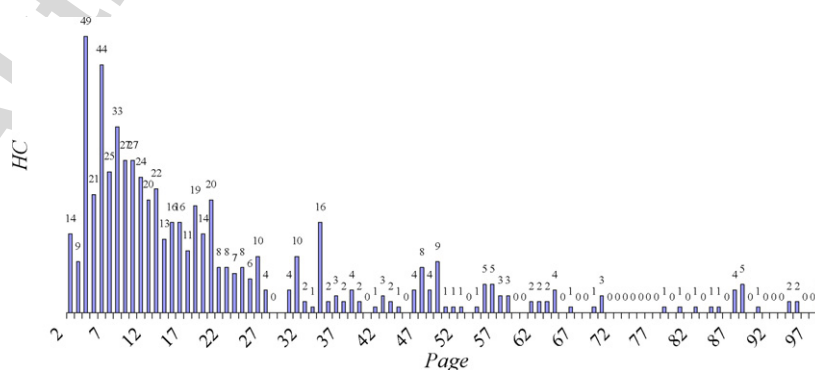


Fig. 2. Amount of the health contents in the pages.

Table 4  
Authors' professional background

Authors' professional background	<i>n</i>	%
Health journalists	27	5.8
General population (readers)	15	3.2
Professors, lecturers, researchers	10	2.2
Health professionals	6	1.3
Politicians	6	1.3
Others	23	4.9
Total signed HC	463	100

Table 5  
Topics of health contents

Alcohol issues	19
Euthanasia	19
Sick leave at work	19
Swedish health care and system research	17
Clinics announcements	14
Youth health	13
Drug addictions	12
Cobra bite alarm and prevention	12
Pharma-industry	12
Influenza	11
Patients' rights and needs in health care	11
Tsunami health consequences	11
Political issues in health	10
Dental health	8
Elderly health issues	8
Foundation in lung and heart diseases	8
Red cross	8
Traffic accidents	8
Escapes from psychiatric houses	7
HIV/AIDS	7
Medical errors	7
Physical activity and health	7

Regarding to the topic "escapes from psychiatric houses", it makes reference to the special units with those inpatients with acute psychiatric crisis.

### 3.2.5. Sources of information

Four hundred and fifty-seven (73.6%) items including HC used one or more types of sources to write the content. These sources were categorised in:

- Individuals ( $n = 345$ , 60.6%): they represent the people with different backgrounds, such as health professionals, professors, politicians, patients, etc. (see Table 6).
- Institutions ( $n = 98$ , 17.3%): they represent to organisations that were used directly in writing the HC.
- Others ( $n = 73$ , 12.9%): here is included other types of sources, such as web sites that the writer visited to obtain the information, other mass media, etc.
- Scientific Journals ( $n = 30$ , 5.3%): they include scientific papers where research results were published such as Science, The Lancet, etc.
- Press agencies ( $n = 22$ , 3.9%): they are those communication companies that sell news to the mass media such as TT, Reuters and AFP.

Table 6  
Individuals as sources of information

Health professionals (physicians, nurses, ...)	95
Professors/project leaders	95
Heads of Health Institutions	76
Politicians	30
Swedish government ministers	18
Journalist	15
Consumers/patients	7
Police officers	5
Economist	4
Total	345

## 4. Discussion and conclusion

### 4.1. Discussion

#### 4.1.1. Identified items

Swedish newspapers publish diverse types of HC. In this study, 2.4% of all the contents were related to health. A previous study [14] found 2% of health content in national newspapers. Various studies [6,14,15] showed that HC get little space in newspapers; however, readers take it in better than the other most common topics, such as economy, society, etc. Then, the impact of this health content might be larger.

SvD is the newspaper that filled most space related to health and published more units of HC during the study period. However, SvD is less read in Sweden if compared to DN and GP, then we cannot conclude that SvD creates a larger impact to the general population. In global terms, the selected newspapers together are daily read by 788,600 people [8] or even more due to the fact that subscriptions are usually to households or working places, which means that the newspapers may be read by much more people.

Official statistics from September 2005 [16] show that Sweden has a population of 9,039,143 inhabitants. This means that at least 8.7% of the Swedish population was exposed to this HC that may indicate certain level of importance that newspapers could have for Public Health in terms of delivering health information. This percentage is probably much higher, since newspapers are often read by more than one person. If it is considered that not all age ranges of Swedes are equal readers, the HC are best targeted to the adult population. On the other hand, within this study it is difficult to ensure that all readers went into the health information because a reception analysis was not done, but at least we may confirm that all readers had the opportunity for exposure.

As this study was focused in the newspapers, others media (internet, magazines, television, etc.) were not taken into account in the analysis, but the use of different media in a health campaign could be useful to target specific groups of population.

#### 4.1.2. Descriptive items

4.1.2.1. Sections. Regarding the sections, it was the national section "Sweden"/"Inlands" or the regional one, which was most filled with HC, if compared to others. The following

sections about economy and politics are curiously in high positions filled with HC. Mass media are usually influenced by different interests [3], and politicians or Pharmacy companies could have interests in certain types of health information [14]. This may point out conflicts of interests between Mass Media and Public Health as other studies have already concluded [17,18]. For instance, Mass Media *versus* Public Health interests may have different focuses: speculation *versus* verification/falsification, clarity *vs* uncertainty, conflict *versus* consensus, simplicity *versus* qualification, and/or events *versus* processes [3].

**4.1.2.2. Pages.** Results obtained on what pages the HC is published give us an idea about the importance of the content. The median is page number 13, and page 4 is the major mode. The main news, those with most relevance for the journalists, is usually published on the first pages [14]. On this basis, this study could indicate a certain importance that journalists give to HC.

To analyse health contents that were published on the front page is a useful way to observe the level of importance that was given by journalists to such contents. Eighty nine contents were published on the front page besides the deeper content inside the newspaper. It means that 14.3% of HC were given a certain level of importance by editors or by those who decide the front page content. In a similar study [14], 10% of all HC appeared previously published in the front page. Therefore, the HC that are previously presented in the front page, and the HC that were found in the first pages might confirm even more the importance given to HC by journalists.

**4.1.2.3. Authors.** Those who write about health in newspapers are usually journalists with a general background [3,14,19]. They have a high knowledge of Communication but might not have about Health or Science, which is required to properly deal with health news and information. In this study, journalists wrote 81.3% of the signed HC, and just 5.8% were written by health specialised journalists. It is also interesting to look at the small amount of HC signed by those who play an important role in health, such as health professionals (1.3%), professors and researchers (2.2%), and the general population (3.2%). In addition, politicians wrote about health issues (1.3%) that could enclose some political interests.

SvD seems to be the newspaper with most specialised health journalists. On the contrary, DN seems to have fewest specialised writers in these field, however it is the only newspaper where a journalist signs as a “health writer”.

**4.1.2.4. Topics.** Regarding the topics, it is necessary to say that some events may occur and affect to the health topics that are selected for the publication. In fact, everything that appears in a newspaper has a certain priority, which was previously decided by the editorial. For example, if there would be more important topics in a week than those related to health, such publication would not include these health topics then. Some topics can shift between categories, but in

these cases the health content was introduced in the main category.

The topics of HC are very diverse and as said before different factors may influence them. “Cancer”, “alcohol issues”, “euthanasia”, and “sick leave at work” were the most common topics about health during the selected period. Cancer is an important health problem in western countries on terms of morbidity and mortality. Although Sweden has strong regulations on alcohol sales and taxes, it seems to be still a problem of interest in the country, at least during the period of the study. Euthanasia has been a normal theme of interests in many countries in the last years. It illustrates the relevance of Bioethics due to the health sciences progression.

Alcohol related issues and sick leave have been topics of interests for Sweden during that period. They let us see how others factors coexist within HC, such as economics and politics. There are other topics that make reference to latest events in the country, such as “Cobra bite alarm and prevention”, “avian influenza” and “health consequences after the Tsunami”. These were temporal events and may vary if the same study had been made in another period of time because they depend on the current news and are categorised like “temporal”. On the other hand, some topics last longer in newspapers and here have been categorised like “permanent”. This study could not answer this question, but when it is compared with similar studies [6,14], they found out similar topics in health contents like health care and system research, pharmacy industry, patients’ rights and needs in health care, physical activity issues, smoking habits, dementias and elderly population. Then, these last topics might be called as “most frequent HC in newspapers” regarding these studies.

**4.1.2.5. Sources of information.** Individuals are the main source of information (60.6%) used by journalists to write about health. Health professionals ( $n = 95$ ) and researchers ( $n = 95$ ) are the most common source of information, but also heads of health institutions ( $n = 76$ ), politicians ( $n = 30$ ) and government ministers ( $n = 18$ ) play an active role as consultants in newspapers. It is a good sign to observe that health professionals and researchers are at the top in the list of individuals, but we must be concerned that only 190 of 621 contents used them as sources, which might accomplish public health purposes. It means that the 30.5% of all the HC have health professionals and researchers opinions. Nevertheless, on the other hand, we have heads of health institutions, politicians, and ministers that clearly might have some interests behind the health content. In 124 (19.9%) of all contents, journalists used these possibly influenced opinions to write about health. The use of certain politicians as sources might reveal political interests of newspapers. Content analyses would bring out a better understanding about the use of these sources in order to observe such political points of view influencing health issues.

**4.1.2.6. Limitations of the study.** In order to ensure the validity, assessment of content, construct and criterion [20], the analytical framework used to obtain the data was used in previous research [6,14]. Regarding the reliability, the study

would be reliable if the factor of time would not exist. This study is limited to a certain period. Therefore, these results are valid for the period between 11 of March 2005 and 11 of April 2005. This is due to the variation of news that the mass media daily experience. This is a clear limitation of this study, but in order to minimize the importance of it, the period was extended as much as possible (one full month or 30 editions). A larger study making analyses in different periods might be needed. Comparing this study with a similar one [6], several general similarities have been found, which could contribute to certain validity to the results.

Another limitation has been that this study has been focused just in printed newspapers and has not been considered online newspapers, which are taking more and more importance in the media landscape. An important aspect to consider is patient perception, which has not been studied in this paper and then it cannot guarantee that all readers got all health contents that are extremely influenced by other factors like personal situation of the reader [21].

#### 4.2. Conclusions

Svenska Dagbladet is the newspaper with more health contents and also with more specialised health writers when compared with Dagens Nyheter or Göteborgs-Posten. Individuals like health professionals and professors were the most common sources in these health contents. Nonetheless, politicians are also used as sources of information by journalists, which might increase the risk of political interests linked to the information. Research is needed on evaluating the quality of the health content through content analyses.

#### 4.3. Practice implications

The results suggest an opportunity for public health experts and officials to work more effectively with local journalists to increase the use (and impact) of public health messages in news coverage. The article points out how some interests play an important role in the health information and also the need of specialist journalists to assure accuracy in the health information. Promoting specialisation and independence in health communication through newspapers would make this specific mass media even more effective to deliver health messages to the general population.

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