Canadian Newspaper Coverage of the A/H1N1 Vaccine Program

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ABSTRACT

Objectives: The A/H1N1 mass vaccination program in Canada garnered considerable attention from the media, including extensive newspaper coverage. Media reports have been shown to influence the public’s health care decisions, including vaccination choices. We analyzed Canadian newspapers’ portrayal of the A/H1N1 vaccine including mention of risks and benefits of the vaccine and whether the article supported, questioned or was neutral about the vaccine.

Methods: We compiled a data set of Canadian newspaper articles (N=234) and conducted a frequency content analysis to examine discussion and/or mention of evidence concerning vaccination, risks of the A/H1N1 virus and the vaccine, and tone of article in regards to the vaccination program in Canada.

Results: Reasons for getting vaccinated appeared in 71.8% of the articles, whereas only 18.4% provided reasons against getting vaccinated. Discussion of evidence to support claims for or against getting vaccinated appeared in only 27.8% and 6.8% of the articles, respectively. Risks associated with contracting the A/H1N1 virus were discussed in 49.6% of the articles and risks of the A/H1N1 vaccine were discussed in 12.4% of the articles.

Conclusion: Newspaper coverage in Canada was largely supportive of the A/H1N1 mass vaccination program. However, serious risks associated with contracting the A/H1N1 virus were also frequently discussed in the print media. The news articles rarely presented direct evidence to support statements that the vaccine was safe, effective and properly tested. Known risks (such as potential allergic reactions and flu-like side effects) of the vaccine were rarely reported. The relationship between media portrayals and vaccine uptake warrants further research.

Key words: Newspapers; influenza vaccines; Canada

La traduction du résumé se trouve à la fin de l’article.
appearance of the 2009 H1N1 virus showed that Canadians were likely to perceive a pandemic threat as greater when it is covered extensively by the media. In a recent US study, however, Maurer et al. found that people who relied mostly on the media for information regarding the A/H1N1 influenza and the pandemic vaccine were less likely to choose to vaccinate than those who sought information from their health care providers or local health departments. Likewise, a French study suggested that print media and internet sources may have fueled public concerns about A/H1N1 vaccine safety, leading to low uptake of the vaccine. A survey of Canadian physicians and pediatricians conducted before the launch of the vaccination program and associated media coverage found that a majority intended to recommend the vaccine; the relatively positive media coverage of the vaccine may have served to reinforce health professionals’ recommendations.

The role of the popular press on public opinion and behaviour is changing. Both reflecting and helping to shape attitudes toward health issues, the relationship between media and the public is more than a simplistic and linear transmission of information. In addition, with the rise of new media, particularly via the internet, the role of traditional sources of health information, such as newspapers, is changing. Nevertheless, studies have consistently shown that the news media, including newspapers, remain one of the single most important sources of health information. It has the power to frame issues and, perhaps, influence perceptions of the risks and benefits of health interventions. Indeed, one study found that 85% of Canadians believe they have made at least one behavioural change as a result of media reports about health. Other studies have found that health care professionals and researchers view the media as a powerful source of health information.

Given the important role of the news media – a role that has been recognized and embraced by public health agencies, as exemplified by the numerous A/H1N1-relevant press releases (e.g., refs. – we examined print news reports concerning the A/H1N1 vaccine in Canada with the objective of exploring media coverage, including discussion and/or mention of reasons and evidence for or against being vaccinated or risks associated with the A/H1N1 virus and vaccination; and theme, i.e., whether the article supports, questions or is neutral about the vaccine program.

METHODS

We conducted a quantitative content analysis to examine latent content such as benefit, risk, evidence and theme. To develop a representative sample of newspaper articles from across Canada, we searched the Factiva and Canadian Newsstand databases, which provide only textual results from a finite set of newspapers from major cities in each Canadian province or territory. We used the search terms ‘H1N1’ and ‘vaccin’ up until December 31, 2009. We included only articles for which the full text was available. Letters to the editor were excluded from the results. The final data set included 796 newspaper articles. To create a manageable data set, we first stratified our sample by province and then selected a random sample of one third of the articles from each province. Irrelevant articles were then excluded from the sample data set, resulting in a final data set of 234 articles. Articles were deemed irrelevant if the vaccine being discussed was the seasonal flu vaccine, not the A/H1N1 vaccine, or if the article discussed counterfeit H1N1 products being sold online.

To conduct a content analysis of the news articles, a coding frame was developed and pretested using methods similar to previous research. The coding frame included three sections. The first section collected information regarding date of publication, type of author (e.g., columnist, science writer, guest writer, newswire) and article format (e.g., latest news, column, editorial). The second section gathered information on content, which included whether the news article provided reasons for and/or against getting the vaccine, whether any evidence for safety and efficacy (or lack thereof) of the vaccine was provided, if there were any risks associated with contracting the A/H1N1 virus or with the A/H1N1 vaccine, as well as who was quoted within the news articles. Finally, the theme of the article was coded as descriptive, supporting the vaccine, questioning the vaccine, or presenting both sides. One team member coded all 234 articles. To assess the reliability of the results, a second coder, who was not otherwise involved in the project, coded a random selection of 20% of the articles. A Cohen’s kappa of .60 (substantial agreement) was used to determine inter-coder reliability. Scores ranged from k=.617 to k=1.000 with a mean of k=.725. All coding results were then analyzed using descriptive statistics.

RESULTS

From the sample of newspaper articles (n=234), news reports about the A/H1N1 vaccine began to appear in Canadian newspapers in June 2009, yet most of the vaccine coverage (184, 78.6% of all articles) occurred during October and November 2009, during the first month of the mass vaccination program in Canada. Coverage across the provinces was as follows: national papers (24, 10.3%), British Columbia (19, 8.1%), Alberta (28, 12.0%), Saskatchewan (23, 9.8%), Manitoba (15, 6.4%), Ontario (70, 29.9%), Quebec (20, 8.5%), Maritimes and Atlantic Canada (24, 10.3%), Territories (11, 4.7%). No significant differences were found in the content and theme of articles published in different regions of Canada.

To vaccinate or not to vaccinate?

A majority of articles (168, 71.8%) provided reasons in support of being vaccinated, while 18.4% (43 articles) provided reasons against getting vaccinated. Of these articles, 15.2% (36 articles) provided both reasons for and against getting vaccinated. Just over a quarter (59 articles, 25.2%) did not provide a reason either for or against getting vaccinated.

Our coding frame revealed that nine specific reasons were provided for getting vaccinated; despite there being fewer articles providing reasons against getting vaccinated, 16 such reasons were provided (see Table 1). A small number of articles (23, 9.7%) mentioned that people should get vaccinated, but did not provide specific reasons.

Evidence

The content analysis looked for explicit and implicit discussion of scientific evidence in each article. With regard to articles that provided reasons for getting vaccinated, 27.8% of all articles (65 of 234 articles) either stated or implied some kind of scientific evidence in support of the vaccine. With regard to articles that stated or implied scientific evidence in support of the vaccine, 22.2% of all articles (52 articles) quoted or attributed the evidence and reasons for getting vaccinated to a person, usually an expert or authority figure, and 8.5% of all articles (20 articles) made reference to an
Discussion of risk

The articles were also coded for discussion of risks associated with contracting the A/H1N1 virus as well as risks associated with the A/H1N1 vaccine. Almost half of the articles (116 articles, 49.6%) mentioned risks associated with contracting the A/H1N1 flu virus. The following risks were noted: serious illness/hospitalization (75 articles, 32.1%); death (58 articles, 24.8%); and complications for pregnant women (5 articles, 2.1%).

5.6% (5 articles, 2.1%) mentioned risks associated with the A/H1N1 vaccine, but did not specify the risk. With regard to articles that mentioned risks of contracting the A/H1N1 virus, 68 articles quoted or attributed someone with identifying these risks, most commonly a health professional (35 articles, 15.0%), lay member of the public (13 articles, 5.6%) or a government official (10 articles, 4.3%). Only four articles cited a document or other source of information as identifying the risks associated with contracting the A/H1N1 virus (2 government reports, 1 peer-reviewed journal article, and 1 news release).

Discussion of risk associated with the A/H1N1 vaccine appeared in 12.4% of all articles (29 articles). Mention of risk was not necessarily associated with articles that provided reasons for not getting vaccinated. There were 11 specific risks identified and 3.4% of all articles (8 articles) mentioned risk, but did not specify the risk. Risks associated with the A/H1N1 vaccine included: development of autism in children (6 articles, 2.6%); allergic reaction to the injection (5 articles, 2.1%); Guillain-Barre syndrome (5 articles, 2.1%); various neurological conditions (4 articles, 1.7%); expected flu-like side-effects (4 articles, 1.7%); vaccine not tested properly (3 articles, 1.3%); government conspiracy to decrease world population (2 articles, 0.9%); problems with the specific Canadian-made vaccine batch (1 article, 0.4%); development of allergies, asthma, and autoimmune diseases (1 article, 0.4%); and the adjuvant (squalene) suspected in “Gulf War Syndrome” (1 article, 0.4%).

Overall theme of articles

Overall theme of the articles was assessed for whether it was descriptive, supporting or advocating the vaccine, questioning or opposing the vaccine, or presenting both sides. The theme includes both the author’s apparent attitude toward the vaccine program and/or the “sides” presented in the news article. For example, an author may write in a neutral or descriptive tone, but only opposing opinions are presented. This article would be classified as questioning or opposing. Results indicated that the newspaper articles were largely supportive of the vaccination program (110 articles, 47.0%), and by comparison, only 8.1% of articles (19 articles) questioned or opposed the program. Ten percent (24 articles, 10.3%) presented both supporting and opposing perspectives, and approximately one third of all articles were neutral on the subject and provided descriptive accounts of the vaccine (81 articles, 34.6%).

CONCLUSIONS

This study provides a descriptive account of the content and tone of print media reports concerning the A/H1N1 vaccination in Canada. A key finding is that the print media sources we analyzed provided a fairly positive perspective on the vaccine and were largely supportive of the program. Serious risks associated with contracting the A/H1N1 virus were also frequently discussed in the print media, although the news articles rarely presented direct evidence that demonstrated that the vaccine was safe, effective, and properly tested. Known risks (such as potential allergic reactions and flu-like side effects) of the vaccine were rarely reported. While only a minority of articles mentioned risks of vaccination, an interesting finding is that the number of reasons cited for not getting the vaccination (16) was almost double that of the reasons given in favour of vaccination (9).

Our study does not draw conclusions about the impact of news coverage on actual vaccination rates in Canada, but the relatively low vaccination rates reported by Statistics Canada, especially among younger and Western Canadians, is worth additional exploration. Previous research suggests that the public seeks news that confirms pre-existing values and assumptions. Therefore, even a moderate amount of negative press may be sufficient to reinforce fears among those in the population already skeptical of a vaccine.
There are several limitations to our study. First, it is a sampling of Canadian news print articles. Second, the analysis did not include images that originally accompanied the news articles; images that evoke anxiety in some readers (e.g., close-up of a needle puncturing the skin, photo of a crying child getting vaccinated) may influence how the reader interprets the content of the article. While not a limitation of our study, it is important to recognize that there are many other forces that impact public perception. For example, the Internet may provide additional insight into the portrayal of the A/H1N1 vaccination program in Canada. The content and tone of government public health recommendations for vaccination also influence public attitudes and behaviour and present another area for research.

REFERENCES
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