

Media Representations of Allergy and Asthma Issues, Policy and Research: Views from the AllerGen Research Community

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Introduction

Media representations of health and scientific information have increased dramatically over recent years, resulting in television, newspapers, radio, the internet, and various other print media serving as significant and widely accessible communication and dissemination vehicles.¹ Indeed, it is well documented that the public gets the majority of its health and science information from the popular media, which also serves as an important information source for both the medical and scientific communities.² Numerous scholars have observed the media's influence. As noted by Steinbrook: "The public appetite for health information seems insatiable, as evidenced by the daily appearance in the news media of stories touting new medical breakthroughs, the proliferation of health-related web sites, and the growth of direct-to-consumer pharmaceutical advertising. So important has media coverage of medical research become that many believe it sets the agenda not only for the public, but also for researchers and physicians."³ And Bomlitz and Brezis add: "Mass media are a leading source of health information for the general public and for health professionals and their choice of coverage can ultimately drive public policy and healthcare decisions."⁴

Given the popular media's capacity to transmit information, it is not surprising that concerns regarding the accuracy and quality of media representations, and their potential to impact, for example, funding priorities,⁵ policy development,⁶ research direction⁷ and public perceptions,⁸ have been raised and subsequently explored by the academic community. While the relationship between media representations and all of these areas is undoubtedly complex (e.g., the media seems to help to shape and reflect public perceptions), there is little doubt that the media plays an important role.⁹

A recent event – AllerGen's Fifth Annual Research Conference: *Innovation from Cell to Society* – attended by members of our team allowed further investigation of such issues, specifically through the lens of allergy and asthma research. Conference delegates were invited to take part in a survey exploring their views regarding media representations of allergy and asthma issues, policy and research and the impact such representations have on policy development, funding decisions and public opinion.¹⁰ The intent of the survey was to investigate participants' perceptions of the accuracy and influence of media accounts without exploring the



extent to which those perceptions could be considered 'correct.' The survey instrument also did not attempt to measure for potential sources of respondent bias (e.g. the frequency with which they consume popular media and whether they are selective in media reports they follow).

Given recent media coverage of allergy and asthma related research, both within and outside of Canada (see text box below)¹¹ the administration of the survey was viewed as being particularly timely. Respondents (48 out of a possible 187) represented a broad range of participants from this discrete scientific community including principal investigators, co-investigators, trainees, AllerGen staff members, invited guests, meeting sponsors, research partners and other attendees.

Accuracy and quality of evidence

Much has been written in the academic literature critiquing the accuracy and quality of evidence used in media representations of both health and scientific research.¹² While many characterize the media as an inaccurate source of information, one that does not reflect the message put forth by the scientific community, others have found it to be surprisingly accurate, demonstrating strong fidelity of media reports to associated scientific findings.¹³

When these topics were explored with conference delegates, the majority of respondents expressed some concern. Specifically, when participants were asked if they thought media representations of allergy/asthma issues, policy and research were accurate, only 8.3% thought they were. Rather, 70.8% believed they were accurate only some of the time. A small minority, 14.6%,

Table 1: Examples of Media Coverage of Allergy and Asthma Related Research

Maclean's: The allergy epidemic – June 5, 2006

... the global incidence of allergic diseases such as food intolerances, asthma, eczema and hay fever is going through the roof in comparatively well-to-do Western cultures, ..., we now think that between 20 and 30 per cent of the Western population is allergic to something -

http://www.macleans.ca/article.jsp?content=20060605_128132_128132

CBC News: What's nuts, Chatelaine, is not to be concerned -- November 10, 2009

... the hit-and-run article in its December issue is called "It's Just Nuts." ... In the telling, the writer skewers the hard-won accommodations in schools to protect food-allergic children, confuses facts and statistics, and never pauses to speak to a principal or a parent of a child who has experienced anaphylaxis, the most serious form of allergic reaction.

<http://www.cbc.ca/canada/story/2009/11/09/f-vp-smith.html#ixzz0ryYU13rQ>

The New York Times: Doubt Is Cast on Many Reports of Food Allergies -- May 11, 2010

Many who think they have food allergies actually do not. A new report, commissioned by the federal government, finds the field is rife with poorly done studies, misdiagnoses and tests that can give misleading results.

<http://www.nytimes.com/2010/05/12/health/research/12allergies.html>

Telegraph.co.uk: One size fits all: allergy jab for hay fever, asthma and eczema on the way -- June 22, 2010

Experts say if properly developed it could become the "holygrail" of vaccines due to it helping ward off multiple allergies... the "one size fits all" injection that wards off asthma, eczema, hay fever and even peanut allergies could be on the shelves within four to five years.

<http://www.telegraph.co.uk/health/healthnews/7845325/>

[One-size-fits-all-allergy-jab-for-hay-fever-asthma-and-eczema-on-the-way.html](http://www.telegraph.co.uk/health/healthnews/7845325/One-size-fits-all-allergy-jab-for-hay-fever-asthma-and-eczema-on-the-way.html)



thought they were not accurate, and the remaining 6.3% indicated they didn't know. Comments provided give some insight into the types of factors perceived to impact accuracy. As one respondent stated, "There is a greater tendency for accurate reporting when an allergy/AllerGen researcher is involved in interviews. Also [when] spokespeople from patient groups [are involved]." While another suggested, "Often the reporters do not have any medical background and focus on the sensational factors only."

When respondents were then asked to rate the quality of evidence used in such media representations, very few, only 4.3%, indicated they thought it was of high quality. A sizeable majority, 63%, found it to be of mid quality, and approximately a full third, 32.7%, classified it as of low quality. Opinions provided, such as "I think it is mixed," "very variable," "some high, some low;" "anecdotes trump research evidence," highlight respondents' skepticism and illustrate they find the quality of evidence used in media representations of allergy and asthma issues, policy and research to be truly variable in nature.

Impact of media on policy development and funding decisions

The media's ability to shape and guide important issues, such as policy development, research direction and funding decisions has also become subject to significant academic inquiry. In addition to Steinbrook's and Bomlitz's and Brezis' comments above, Nelkin notes: "Media coverage can also influence medical research policies in ways that may compromise the autonomy of science ... Media coverage may also influence research funding and therefore research priorities."¹⁴ Lewison *et al.* similarly acknowledge the media's command: "Mass media are the nexus between public and policy agenda and are highly influential in shaping discourses about health and research."¹⁵

Given such commentary, it is perhaps not surprising that when respondents were asked if they thought media representations of allergy/asthma issues, policy and research have an impact on health and/or research policy development, a considerable majority, 62.5%, indicated they thought they did, with an additional 20.9% believing they did some of the time. Only 8.3% thought they had no impact, and a remaining 8.3% indicated they didn't know. Further, when respondents were asked whether

or not they believed such representations impacted health and/or research funding, similar percentages thought they did (54.2%) or did so some of the time (25%). Only a small minority, 14.6%, thought they had no impact on funding decisions, with a remaining 6.2% indicating they didn't know. Comments provided reflect respondents' impressions of the media's influential nature: "Directly affects politicians' views and the general population's views which change policies indirectly;" "e.g. Sabrina's law, school lunch policies;" "If it is a 'right now' big issue for the public then the government will fund research i.e. mad cow (BSE), H1N1;" "Politicians listen to this, but they need better info/message."

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Impact on public opinion and public understanding

Given that the public gets most of its health and science information from the popular media, it is not surprising that the media plays a significant role – albeit a complex one – in both shaping and reflecting the public's understanding of such information.¹⁶ Discussing this specifically in the context of science communication, Nelkin states: "For most people, the reality of science is what they read in the press. They understand science less through direct experience or past education than through the filter of journalistic language and imagery. The media are their only contact with what is going on in rapidly changing scientific and technical fields, as well as a major source of information about the implications of these changes for their lives."¹⁷ Survey results from both the US and Canada provide illustrative examples. Discussing television and the internet as two of the most influential and far reaching forms of media, Eggener notes: "The potency of television can be illustrated by a recent survey of regular viewers of the NBC medical



drama “ER”; 32% indicated that information they receive from the show helps them make choices about their family’s health care. Remarkably, 12% of viewers have contacted their physicians because of something they saw on the show. Another ideally used system, the Internet, provides around-the-clock access and, unlike many other resources is capable of accommodating personal health inquiries.”¹⁸ A 2007 poll of the Canadian public (1020 adults participated) supports such findings, with 85% of survey respondents stating they had made at least one behavioural health change (e.g. foods, beverages, medications, and/or vitamins consumed and/or increase in physical activity) within the past five years as a direct result of media reports. Additionally, respondents indicated that television and the Internet were their preferred sources of media to learn about advances in health research.¹⁹

The results from our survey fit well with such observations. When participants were asked whether or not they believe media representations of allergy and asthma issues, policy and research impact public opinion and public understanding of them, the vast majority, 85.4% thought they did, and an additional 12.5% believed they did some of the time. Only 2.1% thought they did not. A number of respondents provided comments illustrating the powerful influence they perceived the media to have on shaping public opinion and understanding: “The media is a powerful tool for messaging and educating the public;” “Media is the only source of information for most people;” “There are already many gaps in understanding. Some media reports have perpetuated them. Some radio talk shows try to build the controversy (e.g. peanut bans). On-line commentaries reflect misunderstanding all around;” “Lots of extrapolation from skimpy evidence which influences the lay public.”

Participants were then asked if they had ever had a member of the public, including friends and family, question them about their work, or a related area of allergy and asthma research, after being exposed to the media. Given the findings from above, it is not surprising that an overwhelming majority – 81.3% – expressed that they had.

As a last point of inquiry, respondents were asked about the impact media representations had on their work specifically. 54.9% indicated that media representations of allergy and asthma issues, policy and research had

made them think about their work in a different way, and an additional 13.7% said they had thought about such representations when making decisions about what project(s) to pursue. Although close to a third, 31.4%, indicated that media representations of allergy and asthma issues, policy and research had nothing to do with their work, the impressions of the majority again speaks to the influential capacity of the media.

Conclusion

The administration of this short survey within the AllerGen community provided some valuable and interesting results. Specifically, respondents expressed strong to moderate concern regarding the accuracy and quality of evidence used in media representations of allergy and asthma issues, policy, and research. They also perceived that such representations impacted relevant policy development, funding decisions, and shaped public understanding and public opinion. In addition, over two thirds of participants indicated that media representations had either made them think about their work in a different way, or had been considered when making decisions about what project(s) to pursue. These findings fit well within the current literature and provide the basis for additional work within this and other discrete scientific communities. Specifically, given the debate that exists within the literature regarding the accuracy of media reports, a more comprehensive analysis exploring perceived sources of inaccuracy and quality of media representations would be instructive.

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Endnotes

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 - 7 Nelkin, *supra* note 5; Schwartz & Woloshin, *supra* note 2.
 - 8 Dorothy Nelkin, *Selling Science: How the Press Covers Science and Technology*, 2nd ed. (New York: W.H. Freeman and Company, 1995) at 2; Scott Eggener, “The Power of the Pen: Medical Journalism and Public Awareness” (1998) 279 Journal of the American Medical Association 1400; Research Canada: An Alliance for Health Discovery, *Media Science Forum 2007: Communicating Health Research in an Era of Headline News*, online: Research Canada <<http://www.rc-rc.ca/en/content.php?doc=112>>.
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 - 10 The survey instrument was developed in consultation with project team members and collaborators, and consisted of both open and closed ended questions. All conference participants received a copy of the survey instrument in their delegate bags, and instructions on the survey indicated that participation was entirely voluntary. Although the survey was designed to be completely anonymous, any information from the study that could identify individuals in any way has not been included in published results. All questions and survey protocols were reviewed and approved by the University of Alberta Faculties of Arts, Law and Science, Research Ethics Board. Examples of questions included on the survey are: (1) Do you think media representations of allergy/asthma issues, policy and research are accurate? Select the answer you most agree with: (a) yes (b) no, (c) sometimes, (d) don’t know; (2) Do you think the quality of evidence used in media representations of allergy/asthma issues, policy and research is of: (a) high quality, (b) mid quality, (c) low quality; (3) Do you think media representations of allergy/asthma issues, policy and research have an impact on health and/or research policy development? Select the answer you most agree with: (a) yes, (b) no, (c) sometimes, (d) don’t know.
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- 15 Lewison *et al.*, *supra* note 9.
- 16 Ten Eyck *supra* note 9; Lewison *et al.*, *supra* note 9.
- 17 Nelkin, *supra* note 8.
- 18 Eggener, *supra* note 8.
- 19 Research Canada: An Alliance for Health Discovery, *supra* note 8.

