



Biomedicalization and the public sphere: Newspaper coverage of health and medicine, 1960s–2000s



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ARTICLE INFO

Article history:

Available online 6 August 2013

Keywords:

USA
Medicalization
Biomedicalization
Mass media
Journalism
Public sphere
Content analysis

ABSTRACT

This article examines historical trends in the reporting of health and medicine in *The New York Times* and *Chicago Tribune* from the 1960s to the 2000s. It focuses on the extent to which health reporting can be said to have become increasingly politicized, or to have shifted from treating the production of medical knowledge as something belonging to a restricted, specialized sphere, to treating it as a part of the general arena of public debate. We coded a sample of 400 stories from the two newspapers for four different Implied Audiences which health stories can address: Scientific/Professional, Patient/Consumer, Investor and Citizen/Policy maker. Stories were also coded for the origin of the story, the sources cited, the presence of controversy, and the positive or negative representation of biomedical institutions and actors. The data show that through all five decades, news reporting on health and medicine addressed readers as Citizen/Policy makers most often, though Patient/Consumer and Investor-oriented stories increased over time. Biomedical researchers eclipsed individual physicians and public health officials as sources of news, and the sources diversified to include more business sources, civil society organizations and patients and other lay people. The reporting of controversy increased, and portrayals of biomedicine shifted from lopsidedly positive to more mixed. We use these data in pinpointing how media play a constitutive role in the process of “biomedicalization,” through which biomedicine has both extended its reach into and become entangled with other spheres of society and of knowledge production.

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Introduction

One of the key points in Clarke, Shim, Mamo, Fosket, and Fishman's (2003) well-known discussion of biomedicalization is the idea that “information on health and illness is proliferating through all kinds of media, especially in newspapers, on the Internet, in magazines, and through direct-to consumer prescription and over-the-counter drug advertising” (p. 177). Their wide-ranging discussion of the “Transformations of Information and the Production and Distribution of Knowledges” stresses the increased “heterogeneity of knowledge sources,” particularly sources of a public character, which disrupts “the division of ‘expert’ versus ‘lay’ knowledges” in the field of health and medicine. The production and circulation of biomedical knowledge have increasingly moved from what was construed as a private sphere of doctor–patient communication or the restricted sphere of communication among professionals into the public sphere, where the communicative norms of biomedicine compete and combine

with those of marketing, journalism and political debate. Clarke et al. and other authors (Bell & Figert, 2012; Clarke, Shim, Mamo, Fosket, & Fishman, 2010; Conrad, 2007; Dumit, 2004) position the emergence of new communicative technologies and practices not as “representing” preexisting biomedical objects and subjects but rather as helping produce the transformations associated with biomedicalization, thereby placing the transformation of health and medical communication alongside both the increased social impact of biomedicine and the interpenetration of medicine with the state and the market. These developments increase the range of social interests that are affected by and implicated in the field of health and medicine, and thus increase both the potential for public controversy and range of actors prepared to intervene in it. The “public sphere,” it should be noted, is complex and layered (Fraser, 1990), and in contemporary scholarship the term is sometimes used in the plural. Because we are focusing here on “mainstream” media with broad mass audiences and a hegemonic role, we use the term in this article in the singular, even if we point to some of the diverse kinds of publics that are constructed in health news.

This article explores historical changes in medical and public health reporting in the U.S. media, with emphasis on the extent to which health reporting has become overtly politicized, adapting

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the conventions normally applied to public controversy. In two previous articles, we developed an argument about contrasting models of “biocommunicability” which structure public communication about health and medicine (Briggs & Hallin, 2007, 2010). The concept refers to the literatures on “biopolitics” and “bio-sociality,” which focus on how the practices of medicine and public health define social subjects (Foucault, 1997; Ong, 1995; Rabinow, 1992); we are interested in the specifically communicative dimensions of this process. Models of biocommunicability are sets of norms and assumptions about how knowledge and information about health and medicine can and should be created and circulated, about what kinds of actors will play specific sorts of roles in this projected flow of information. Based on discourse analysis of newspaper coverage of public health, we identified three dominant models: the Medical Authority Model, which assumes a linear, top-down transmission of medical information from biomedical professionals to patients and other lay persons; the Patient–Consumer model, which centers on active lay patient–consumers who seek medical information and use it to make choices about issues that affect their health; and a Public Sphere Model, which centers around the citizen who will judge the actions and claims of public health authorities and biomedical professionals, and may, in some variants of the model, actively enter into the production and discussion of health-related information. Our initial studies were based on news coverage from 2002 to the present supplemented by interviews with health and media professionals and audiences and ethnography.

As we went forward with the study, we were consistently impressed with the high volume of prominent stories focusing on controversies over medical knowledge and authority. Many focused on conflicting results in biomedical research and on the influence of pharmaceutical and medical device companies on research and medical practice. We suspected that this trend may have dated from the such events as the Vioxx scandal, which broke in the U.S. press in 2004, when drug-maker Merck voluntarily withdrew their COX-2 inhibitor medication after data indicated that it increased risk of heart attack and stroke. A major controversy arose over whether the company had suppressed information that might have hurt massive sales of the drug. There is obviously, however, a longer history to the politicization of health information, going back to public debates over Thalidomide in the early 1960s, the Dalkon Shield in the 1970s, and HIV/AIDS in the 1980s. This study uses a content analysis of U.S. newspaper coverage of health and medicine from the 1960s through the 2000s to test a set of propositions about changes in the way journalists reporting on health and medicine address their audiences, the sources they use, the extent to which they focus on controversy, and their representation of biomedical institutions.

Here we attempt to deepen and refine understanding of the role of news media in biomedicalization. By modeling the boundaries of biomedical spheres, how particular voices help to constitute and structure them, and how they should relate to capital, social movements, government agencies, and other arenas, health journalism would appear to have played a key role in shaping the emergence of biomedicalization. The findings we report here suggest that some of the processes associated with biomedicalization emerged in health news within what has been characterized as the era of medicalization. We draw both on literatures in political communication and journalism studies not usually applied to the study of health communication, and on literatures in the anthropology and sociology of medicine, not generally known in media studies, to see how the news media projects health as a problem of knowledge. We use a combination of quantitative content analysis and interpretive analysis to examine how health issues are constructed in news coverage as being of public concern, and how

different voices are projected as having status to participate in the circulation of health knowledge. Among other innovations, we propose a method for measuring the implied audience of news stories on health and medicine, which permits us to trace historically the kinds of “publics” health news has presented itself as addressing.

Method

This study is based on a sample of health-related articles in *The New York Times* and the *Chicago Tribune*, which were subjected to quantitative content analysis as well as qualitative analysis. We focused on the daily newspaper because it is relatively easy to compare over time. Not only is the material accessible, but also the daily newspaper, despite the well-known decline in its readership, has to this point been more stable in audience and economics than many other media. Network television news would be the other obvious focus for such a study, but is not accessible prior to August, 1968. *The New York Times* has importance as a medium that shapes the flow of information to policymakers and opinion leaders. At the same time, we were concerned that it might have a more consistent orientation toward public policy than ordinary metropolitan newspapers, and not fully reflect the role of consumer-oriented health reporting. Hence the decision to include both the *Times* and a regional paper.

The sample included 400 articles, 200 each from *The New York Times* and the *Chicago Tribune*. For each newspaper we sampled 40 articles per decade, 20 articles for each of two years chosen to fall toward the middle of each decade, the fifth and seventh years (e.g. 1964, 1966). We used the terms *health*, *medical*, *medicine*, *doctors*, *nutrition*, and *pharmaceutical* to search within the headlines and lead paragraphs. The search was limited to “news” articles (as defined by the database); editorials and op-ed pieces were excluded, though medical columns appearing in the news pages (e.g. “Staying Healthy”) were included. We also excluded articles from the sports, travel and magazine sections, and articles less than five paragraphs long. The list of article headlines that the database returned was vetted to eliminate non-health articles. These included stories about health professionals in the news for reasons unrelated to health, metaphorical uses of the word “health,” obituaries of health professionals and stories about the health of public figures, except when the article went into detail about the illness. Five articles were selected randomly out of each of two randomly selected months for each year. We used a ProQuest database to access all articles, except *Chicago Tribune* articles from the 90s and 2000s, which are not included in ProQuest and for which we used the NewsBank database provided by Access World News.

One of the principal goals of the study was to track historical changes in the implied audience of news stories. Each story was coded for four possible implied audiences: Professional/Scientific, Patient/Consumer, Citizen/Policymaker and Investor. The idea was to judge the role in which journalists were addressing their readers, or to put it another way, the uses for which the information was presented as being intended. Articles coded Professional/Scientific were those that focused on scientific knowledge “for its own sake” or for its value in professional practice; these articles were often marked by the use of technical language and the presentation of detail about research method, or by addressing decisions that would have to be made by health professionals. Patient/Consumer articles were those that provided individuals with what was framed as information they might use to make individual decisions about their own health and medical care; these articles were marked by such indicators as imperative voice and second person address, or references to patient perspectives. Citizen/Policymaker articles were those that focused on public policy decisions or more

generally on collective social choices. Investor articles were those that provided information useful for judging the financial health or potential profitability of health-related businesses. News stories are complex bundles often addressing multiple audiences. We therefore measured the Implied Audience using a fuzzy set logic (Ragin, 2000), and did not treat the categories as mutually exclusive. Each article was coded for whether it fit each of four ideal types Strongly, Significantly, Slightly, or Not at All. Intercoder reliability measures showed that the fuzzy set methodology was successful. A sample of 60 articles, or 15% of the total, was re-coded by a second coder. Intercoder reliability as measured by Krippendorff's α (ordinal), calculated using the SPSS macro described in Hayes and Krippendorff (2007) were .77 each for Investor and Professional/Scientific, .84 for Patient/Consumer, and .85 for Citizen/Policy-maker. Other measures will be described below.

Results

Fig. 1 shows the results for Implied Audience. The scale ranges from 0 to 1, where a value of 0 would indicate that all stories were Not at All Characteristic of the Implied Audience in question, and 1 that all were Strongly Characteristic. Our hypothesis was that the prevalence of stories addressed to readers as Citizen/Policy-makers would increase over time, as health and medicine became increasingly subject to public debate. We also expected Patient/Consumer stories to increase relative to more traditional science reporting, both because of the rise of consumerism in the health care field and because of the increasing orientation of the press to service journalism, that is, journalism oriented toward giving practical advice about everyday life. The second of the two hypotheses was confirmed. The two most notable changes over time were an increase in Patient/Consumer stories and an increase in reporting oriented to Investors, as business coverage of health-related industries increased (the percent of GDP accounted for by the health sector grew from 7.3% in 1970 to 17.7% in 2009). The first hypothesis, however, was clearly not confirmed: Citizen/Policy-maker stories showed instead a slight decline over time. We were surprised both at the direction of change and at the fact that Citizen/Policy-maker was the most prevalent Implied Audience for all five decades. This was true of both newspapers, though the *Chicago Tribune* did have more Patient/Consumer-oriented stories than the *Times*, with 25.5% of its stories Strongly Characteristic of that model, compared with 14.0% in the *Times*.

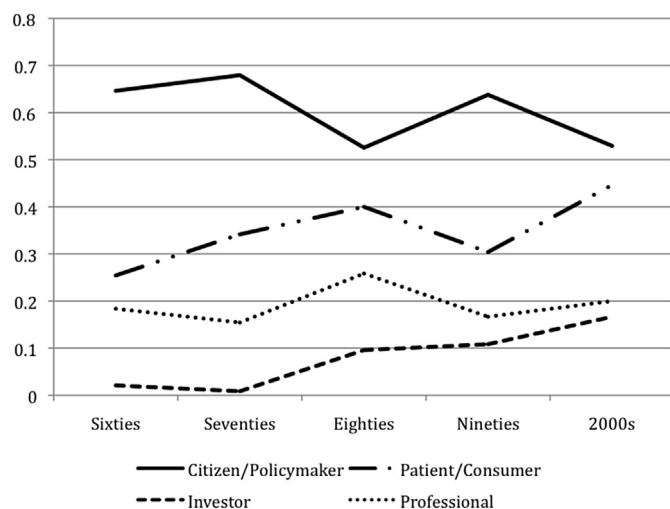


Fig. 1. Implied Audience in *New York Times* and *Chicago Tribune* coverage of health and medicine, 1960–2000s.

Tables 1 and 2 show historical trends in two variables intended to measure aspects of the flow of information in health and medical reporting. Table 1 shows the results of the analysis of Story Origin ($\alpha = .83$). Each story was coded for what social actor was portrayed as responsible for initiating the flow of public information that resulted in that story appearing in the paper. This was coded on the basis of the text itself; it is a convention of U.S. journalism to identify a “peg” for most stories, a statement about what event – usually a communicational event initiated by some social actor – motivated the production of the story.

Table 2 shows the results for Source Citations. This is a more complex way to measure the kinds of actors projected as contributing to the flow of news about health and medicine, as a news story may be initiated by one actor – say a pharmaceutical company which issues a press release – but journalists may cite numerous additional sources discussing this news. The use of sources in news coverage has been widely studied as a key indicator of authority in public discourse, as journalists’ decisions about which actors will be considered “primary definers” (Hall, Crichter, Jefferson, Clarke, & Robert, 1978) or “authorized knowers” structures the range of voices that enter the public sphere (Hallin, Manoff, & Weddle, 1994; Schudson, 2003; Sigal, 1973). For this variable, the unit of analysis is the source citation, and multiple citations of the same source within a story are all counted. Source Citation presents special difficulties in calculating reliability, and, as is the case with many published studies on in which source citations are coded in this way, we do not report intercoder reliability for this variable.

Our primary hypothesis in relation to these variables, consistent with Clarke et al.’s analysis, is that we would see increased diversification in the sources and flow of information. In some respects this hypothesis was confirmed; we can also see in these data many other indications of important transformations in health news. In the 1960s, if we look first at Story Origin, three kinds of actors dominated the production of news: Professional Associations, principally the American Medical Association, Government Public Health Agencies, and Other Government Agencies, accounting for 69.8% of news stories. By the 2000s, the four leading categories of Story Origin, accounting for 51.5% of stories, were Research Publication, Government Public Health Agency, Health-Related Non-

Table 1

Origin of health-related stories in *New York Times* and *Chicago Tribune*, 1960s–2000s.^a

	1960s	1970s	1980s	1990s	2000s
Government Public Health Agency	15	23	13	13	12
22.1%	32.9	22.8	8.6	19.0	
Other Gov’t Agency, Policy Debate, Lawsuit, Court Decision	12	16	10	17	18
17.6%	22.9	17.5	24.3	28.6	
AMA or Other Professional Ass’n, Individual Physician	21	5	6	1	3
30.9%	7.1	10.5	1.4	4.8	
Hospital or Other Health Care Provider	2	5	4	3	1
2.9%	7.1	7.0	4.3	1.6	
Research Publication	3	5	4	12	12
4.4%	7.1	7.0	17.1	19.0	
University or Scholarly Institution	2	3	3	3	0
2.9%	4.3	5.3	4.3	0.0	
Health-Related NGO	5	3	3	2	7
7.4%	4.3	3.5	2.9	7.9	
Business	1	1	5	5	5
1.5%	1.4	8.8	7.1	6.3	
Reporter-Initiated (Feature, Analysis)	1	4	5	9	6
1.5%	5.7	8.8	12.9	9.5	
Other or Undetermined	6	5	5	5	2
8.8%	7.1	8.8	7.1	3.2	
Total	73	71	67	78	74
100.0%	100.0	100.0	100.0	100.0	

^a Columns and news briefs excluded from this analysis.

Table 2

Source Citations in *New York Times* and *Chicago Tribune* health coverage, 1960s–2000s.

	1960s	1970s	1980s	1990s	2000s
Public Health Officials, Local	17	77	15	32	16
	6.9%	15.3	2.3	4.7	2.3
Public Health Officials, State or Federal	22	59	58	59	29
	8.9%	11.7	8.8	8.6	4.2
Public Health Officials, International	8	14	11	21	10
	3.2%	2.8	1.7	3.1	1.4
Other Public Officials	31	49	50	82	96
	12.6%	9.7	7.6	12.0	13.9
"Experts" (Unspecified)	6	8	14	7	23
	2.4%	1.6	2.1	1.0	3.3
Individual Health Care Professionals	34	67	93	54	37
	13.8%	13.3	14.0	7.9	5.3
Representatives of Health Care Providers	8	46	37	35	27
	3.2%	9.1	5.6	5.1	3.9
Biomedical Researchers	50	68	145	151	186
	20.2%	13.5	21.9	22.1	26.8
Business Spokespersons, Analysts	9	35	88	58	97
	3.6%	6.9	13.3	8.5	14.0
Professional and Trade Associations ^a	32	28	9	15	21
	13.0%	5.6	1.4	2.2	3.0
Health-Related NGOs	5	15	31	47	33
	2.0%	3.0	4.7	6.9	4.8
Other Civil Society Groups (Consumer, Environmental, etc.)	11	11	12	39	23
	4.5%	2.2	1.8	5.7	3.3
Alternative Practitioners	0	0	5	10	0
	0.0%	0.0	0.8	1.5	0.0
Ordinary People, Patients	11	7	54	48	64
	4.5%	1.4	8.2	7.0	9.2
Other	3	20	40	25	32
	1.2%	4.0	6.0	3.7	4.6
Total	247	504	662	683	693
	100.0%	100.0	100.0	100.0	100.0

^a Mainly AMA; also includes organizations such as Pharmaceutical Industry Association.

Governmental Organization (which includes such organizations as the American Cancer Society) and Business. We can see in these data the shift of attention in the public representation of the production of knowledge away from the individual physician, as represented by the AMA, and toward the field of biomedical research. We can also begin to understand why our Implied Audience variable showed such a strong predominance of the Citizen/Policy-maker model already in the 1960s and 1970s. Health news in the 1960s and 70s was heavily dominated by reports based on the activities of government agencies. Headlines such as "City Will Widen School Physicals" (NYT Feb. 6, 1974); "Ocean County Sets Health Needs Study" (NYT Feb. 17, 1974), or "Whooping Cough Still Tough to Kick in Chicago" (CT Oct. 10, 1974), a story based on comments by the head of the Chicago Board of Health, are typical of this period. One other trend in these data is important to note: reporter-initiated stories, which include human interest stories and news analyses, increased, indicating a more active role by journalists in setting the agenda for health news.

In the data on Sources, the following trends appear:

1. Researchers are the most prominent sources in every decade except the 1970s, but generally increase in importance.
2. Individual Health Care Practitioners and Professional and Trade Associations decline in significance. In the 1960s, this category was mainly accounted for by AMA spokespeople, who commented on a wide range of health-related issues.
3. Public Health Officials were extremely central to health reporting in the 1960s and 1970s, increasing from 19% to 29% of citations (this category includes officials and spokespersons at the CDC and FDA, the Surgeon General, state, county and city public health departments, and the WHO, but not political

appointees like the Secretary of Health, Education and Welfare). Later they declined in importance, to 8% in the 2000s.

4. Business sources increased in importance, from 3.6% in the 1960s to 14.0% in the 2000s.
5. Health-related NGOs and other "civil society" groups increased modestly in importance, peaking at 12.6% of source citations in the 1990s.
6. Patients and other lay people increased in importance beginning in the 1980s, reaching 9.2% of citations by the 2000s.

Overall, the hypothesis of greater diversification of sources is confirmed, though health reporting remains dominated by biomedical "insiders" through all five decades, shifting from individual physicians and public health officials toward sources in research and industry.

Table 3 shows the results for Controversy Focus ($\alpha = .85$). This was an ordinal variable; the categories were No Controversy, Brief Mention, Controversy Important but Not Foregrounded, and Controversy Foregrounded. To be coded as Foregrounded controversy needed to be mentioned in the headline or lead. Our hypothesis was that controversy would increase over time, reflecting a degree of convergence with the conventions of political reporting. As the results in Table 3 show, this hypothesis is confirmed, though the timing was earlier than we had expected, with a particularly large shift occurring between the 1960s, when 72.5% of stories had no reference to controversy, to the 1970s, when that number fell close to 40%. Our data also showed some evidence that controversy was given greater emphasis in story placement over the years, though the numbers here are small. The number of front page stories in which controversy was Foregrounded increased monotonically, from 1 in the 1960s to 6 in the 2000s. The *New York Times* was more likely to report on controversy than the *Chicago Tribune*, with 42.0% of stories in the *Times* having no mention of controversy compared with 54.5% of stories in the *Tribune*.

Table 4 shows the results for the Tone of Portrayal of Biomedicine ($\alpha = .79$). Our hypothesis was that there would be a shift toward more critical tones, as journalists more often played a watchdog role in reporting on health and medicine, focusing on conflicts of interest that might undermine the integrity of scientific knowledge, conflicting conclusions from research results, and similar themes. Each story was coded for the tone of its portrayal of biomedical institutions and actors: Positive, Neutral, Mixed or Negative. Most stories were neutral, consistent with the convention of "objectivity" in U.S. journalism. More stories were positive than negative in all five decades, and this is worth noting, because news coverage of political institutions tends to have a negative tone, particularly since the shift to "critical professionalism" in journalistic culture in about the 1970s (Lengauer, Esser, & Berganza, 2012). Health and medical reporting is a partial exception to this pattern, with many health stories belonging to what Hallin (1986) calls the

Table 3

Controversy focus in *New York Times* and *Chicago Tribune* health coverage 1960s–2000s.

	1960s	1970s	1980s	1990s	2000s
No Controversy	58	34	34	36	31
	72.5%	42.5	42.5	45.0	38.8
Brief Mention of Controversy	4	12	17	10	12
	5.0%	15.0	21.2	12.5	15.0
Controversy Important, but Not Foregrounded	6	12	14	13	18
	7.5%	15.0	17.5	16.2	22.5
Controversy Foregrounded	12	22	15	21	19
	15.0%	27.5	18.8	26.2	23.8
Total	80	80	80	80	80
	100.0%	100.0	100.0	100.0	100.0

Table 4

Tone of portrayal of biomedical actors and institutions in *New York Times* and *Chicago Tribune* health coverage 1960s–2000s.^a

	1960s	1970s	1980s	1990s	2000s
Celebratory/Positive	27 39.7%	8 11.1	9 13.8	11 17.5	4 6.2
Neutral	25 36.8%	33 45.8	34 52.3	27 42.9	39 60.0
Mixed	12 17.6%	24 33.3	17 26.2	20 31.7	20 30.8
Negative/Critical	4 5.9%	7 9.7	5 7.7	5 7.9	2 3.1
Total	68 100.0%	72 100.0	65 100.0	63 100.0	65 100.0

^a Includes portrayal of public health authorities, health providers and professionals, professional associations, research scholars and institutions, and health-related industry, including Insurers and HMOs. Excludes portrayals of non-health-related public authorities and health professionals or researchers presented as deviants or dissenters ($N = 2$).

“Sphere of Consensus,” the realm of social objects considered above political; controversy and therefore not subject to the objectivity norm; journalists commonly celebrate the achievements of medical science and the heroism of the “war” against disease. Nevertheless a trend toward more critical reporting is clearly evident, with a particularly large shift occurring between the 60s and 70s. The coverage of the 1960s was marked by a strikingly positive tone, dominated by stories like “New Drug Eases Pain of Bursitis... Compound Just Daubed Over Sore Areas with Cotton – Action Called Dramatic” (NYT Mar. 19, 1964), or a story under the head “Asks Doctors to Join Fight on Measles” (CT Nov. 21, 1966) which began, “Reporting in the current issue of the Journal of the A.M.A., the council said that ridding the nation of measles in the foreseeable future is possible.” From the 1970s forward the range of different tones in health and medical reporting broadened.

Discussion

The trends that Clarke et al. (2003) identify as biomedicalization are strongly evident in the health and medical coverage of the daily newspapers we sampled. In the 1960s, health news centered around public health officials, the AMA and other professional organizations, and individual practitioners. Researchers already played an important role, making up 20% of the source citations. But they did not define medicine in the way they would in later decades. The AMA's role was very prominent in the news. Stories like “A.M.A. Attacks U.S. Report on Youth Fitness” (CT June 27, 1964), or “A.M.A. Bids Doctors Prescribe by Brand,” (NYT Nov. 7, 1964) are typical of the era. The *Chicago Tribune* even included a story titled “A.M.A. Gets New ‘First Lady,’” (June 30, 1966). Individual doctors were also frequently given authority to comment on and even to initiate news in this era. “Panic’ Warnings on Health Scored” (NYT Nov. 1, 1966), for example, reported the views of a keynote speaker at the American Public Health Association who denounced “techniques of ‘scare and panic’ to alert the public to environmental health hazards.” Other kinds of actors appeared in health news relatively rarely. Portrayals of medicine tended to be positive in tone, often strongly so, and coverage of controversy was uncommon.

Over the course of the following decades, this portrayal of medicine, centered around trusted physicians and public health officials, was indeed transformed. The AMA lost its position as a definer of health news, appearing rarely and more typically in the role of economic interest group. Individual physicians were no longer considered newsworthy simply for their opinions; to be newsworthy they had to participate in research science, and the agenda of health news came increasingly to revolve around the

process of publication in major medical journals. Public health officials remained an important source of news, though not as central as in the 60s and 70s. Business spokespersons and analysts, health-related NGOs and patient-advocacy groups, and individual patients and other lay people broadened the range of voices that appeared in health reporting. Health reporting came to resemble more closely other news genres, including political reporting, with a greater focus on controversy and more negative or mixed portrayals of biomedical institutions and actors.

Does the content of daily newspaper coverage suggest that health and medicine have been increasingly politicized over these decades, or that they have been drawn into the public sphere, in the sense of that term as it is used in post-Habermasian social theory (Dahlgren & Sparks, 1991; Ferec, Gamson, Gerhards, & Rucht, 2002; Habermas, 1989; Hallin, 1994), that is, into an arena of open public deliberation? The answer to these questions is complex. If we configure the questions narrowly, and ask simply whether press coverage frames health and medicine in terms of public policy, then the answer is that this was already true by the 1960s. Forty-six percent of the stories in our sample for the 1960s were coded as “Strongly” fitting the Citizen/Polymaker model in terms of their implied audience, and an additional 22.5% as “Substantially” fitting that model. The fact that a high percentage of stories in this period addressed the reader in the role of Citizen/Polymaker, however, reflects not the existence of a broad public sphere centered around issues of public health, but the fact that health news was, to a large extent, a subgenre of routine coverage of government agencies, informing citizens about their activities, often in low-key stories deep inside the newspaper, such as “Brooklyn to Get a ‘Day Hospital’” (NYT Feb. 25, 1966, p. 13) or “Village Heads Discuss New Health Plan; Mangers are Pleased with Program” (CT Oct. 25, 1964, p. D4). As the latter example suggests, this tended to be a passive, deferential form of reporting. Research on journalism in this period has emphasized both its passive nature and its focus on the government agencies – the fact that journalists tended to pass on to their audiences the agenda and perspectives of public officials, and that the latter largely determined what was newsworthy and how news would be framed (Gans, 1979; Hallin, 1986; Sigal, 1973). The main variation on this pattern, in health reporting in the 1960s, was the ability of the AMA to initiate public discussion. Much of the controversy that appears in our sample for this period was initiated by the AMA, in stories like “FDA Logjam Delays Drugs, AMA Chief Says” (CT April 30, 1966).

If we ask whether health and medical news is treated in the press as a subject of debate, then our data on Controversy Focus provides strong evidence of a shift beginning in the 1970s. The controversy-related stories in our sample are consistent with the argument of Starr (1982) that concerns about the Medicare and Medicaid costs, the growth of HMOs, a general climate of skepticism about social institutions and increasing heterogeneity and disunity in the profession of medicine led to greater controversy in that decade. Typical stories include “Medicaid Hearing is Told of Abuses” (NYT Jul. 17, 1974), or a story in the *Chicago Tribune* reporting on controversy over the decision of the state welfare director to cut a private health plan off from participation in state welfare programs (“Cure Official Calls State Ban ‘Medical Politics,’” Jul. 24, 1976).

In subsequent years the scope of controversy in health news seemed to broaden, with increasing numbers of stories dealing not only with state funding and regulation, but also controversies within the biomedical realm, that is, controversies about science and medical practice. By the 2000s our sample contained many stories with titles like, “Results of Drug Trials Can Mystify Doctors Through Omission” (NYT Jul. 21, 2004), “Medical Journal Says it Was Again Misled” (NYT Jul. 13, 2006), or “Differences of Opinion on

Stents with Drugs” (*CT* Nov. 14, 2006). Here we run up against an important limitation of our study. The sample size is large enough to show broad changes over the decades. But health news is made up of a wide range of subgenres; reporting on a hospital strike is very different from reporting on a research study. Our sample is not large enough to trace changes in subgenres reliably. Based on our data, however, it seems reasonable to propose the hypothesis that news coverage of controversy in health began in domains where biomedicine most obviously interfaces with the state and the economy, and later moved increasingly into the reporting of biomedical science itself.

A final way we could pose the question of health news and the public sphere is to ask whether the discussion of health issues in the press is increasingly public, in the sense that Habermas and post-Habermasian theorists use the term, that is, the extent to which it is open to participation by diverse voices. Our data on Story Origin and Sources address important dimensions of this question, and they suggest a mixed picture. The data on sources, particularly, show diversification over the decades, with more business, NGO and lay sources appearing in later years. These changes are modest however, and although the range of voices in health news was wider by the 2000s than in the 1960s, it was still quite restricted.

The increased visibility of patients and other lay sources is undoubtedly in large part a product of the increase in consumer-oriented reporting which can be seen in our Implied Audience variables. Consumerism in the health field became increasingly important in the 1970s, and newspapers also shifted toward an emphasis on service journalism, particularly during the 80s and 90s, leading to greater attention to the perspectives of patients and their families. It would be simplistic to pose a sharp dichotomy between consumerism and the political public sphere (Briggs & Hallin, 2010; Cohen, 2003; Hoffman, Tones, Grob, & Schlesinger, 2011; West, 2006). Consumerism has in many cases motivated assertions of the right of the public to have a voice on health matters; the well-known book *Our Bodies Ourselves*, for example, which was produced by the Boston Women’s Health Collective and first published in 1971, was simultaneously a consumerist manifesto and an effort to open medical practices to public discussion (Davis, 2007). In much consumer-oriented reporting, however, patients and other lay people are confined to recounting their personal feelings or experiences, and do not play the broad role of “primary definer” that characterizes the use of other sources. Our ethnographic research suggests that their appearance reflects greater exposure to media training for biomedical administrators, which favors inclusion of patients in press conferences and other presentations largely in roles assigned them by health professionals.

In our earlier research on models of biocommunicability (Briggs & Hallin, 2010), we observed that the public sphere model of biocommunicability appears in several forms. Some news reports that we would identify with this model resemble standard political reporting, centered around public officials and political parties. Another variant is represented by stories that center around social movements. These are interesting because in these stories lay people are often represented in more active ways than in consumer-oriented reporting, as producers and not just consumers of health-related information. Theoretical writing about the public sphere emphasizes the importance of social movements and of civil society (Fraser, 1990; Habermas, 1996). Research on the politics of health also emphasizes the role of social movements – the women’s movement in the 1970s, for example, or the gay rights movement, which intervened so strongly in discussion of AIDS in the 1980s (Epstein, 1996). Social movements are also central to building biosociality, the construction of identities and social relations based on shared inclusion in diagnostic and other biomedical categories (Rabinow, 1992). Epstein (2007) suggested

that many social movements have incorporated a “difference-and-inclusion paradigm” that draws on biomedical perspectives in reconfiguring and mobilizing identity categories (Epstein, 2008; Lakoff, 2008).

Have voices of “civil society” increased in health news? Our data suggest that to the extent that they have, this is primarily in the form of health-related NGOs, (e.g. American Cancer Society, American Lung Association). In the 2000s 6.3% of the stories in our sample were based on actions by such organizations. “More than 500 health care professionals, brain tumor patients and their families had arrived from all parts of the country for ABTA’s [American Brain Tumor Association’s] Brain Tumor Symposium,” reported one typical story (“Brain Tumor Group Makes Strides Via Research, Education,” *CT* Jan. 1, 1994). As this example suggests, these organizations are characterized by cooperative relationships between lay persons and professionals, and they are in part responsible for the increased visibility of lay voices in the news; in this case the story focused on “Highland Park mom Susan Kramer,” whose child suffered from a brain tumor and who led an effort to raise funds for research on the disease. These organizations tend to be relatively “mainstream” in the sense that biomedical professionals and the pharmaceutical industry are very much involved in them; to some degree they might be seen as a manifestation of the “co-optation of competing knowledge systems,” which Clarke et al. (2003, p.177) see as one of the characteristics of biomedicalization. But certainly these organizations often play a role in opening health-related issues to public debate. It would probably also be fair to say that they represent simultaneously a cooptation of civil society by biomedicine and a penetration of the logic of politics and public relations into biomedicine.

Aside from these more mainstream NGOs, however, the data from our historical sample show a low level of visibility for social movements and organizations of civil society outside of the biomedical establishment. This is evident if we look at the data on Story Origin and Source Citations, breaking out categories that were coded separately but are combined for presentation in Table 2. About 3.5% of stories, for example, were “pegged” to the action of a Community Health Organization, and the number was highest, at 5%, in the 60s and 80s. Only one story cited a representative of an environmental organization, despite the fact that the environmental movement is generally sophisticated about positioning itself as an expert source for the media. Trade unions, religious organizations and consumer organizations were similarly scarce.

Despite the diversification of sources over the decades, the public sphere in the field of health remains restricted in important ways. In our sample for the 2000s, 44% of Source Citations were to biomedical professionals: researchers, physicians, representatives of health care institutions, and public health officials (Alternative medical practitioners were excluded; in fact none were cited in our sample for this period). If we add other Source categories that could be described as “insiders” to biomedical institutions (Unspecified “Experts”; Business Spokespersons and Analysts and Professional and Trade Associations) the total rises to 64% of Source Citations of biomedical “insiders.” Norms of deference to scientific authority remain strong, and journalists tend to treat many health issues as controversies within the biomedical profession.

A good example is “Results of Drug Trials Can Mystify Doctors Through Omission” (*NYT* Jul. 21, 2004, p. C1), which dealt with the problem of information from research trials not disclosed on drug labels. The sources included an FDA report, the FDA’s Associate Director for Medical Policy, the Director of its division of pediatric drug development, the chairman of a committee on pediatric drugs of the American Pediatric Association, and a spokesperson for Pfizer – all biomedical “insiders.” The story, written by Barry Meier, represents an active form of journalism – not purely reactive to a

particular press release or statement, relatively analytical and using multiple sources. It could certainly be said that the media plays an important role here in thrusting the issue into the public sphere, obliging biomedical professionals to address the issue in public (though the journalists are not the only actor in this process: the “peg” for the story is a series of meetings between medical groups and legislators over possible legislation). Nevertheless, what is created in this case is a special kind of public sphere, which the general public has a right to *witness* but not to *enter*.

Conclusion

The mass media play a central role in the historical process of biomedicalization. Media figure in the process by which biomedicine has penetrated and reshaped ever wider spheres of culture and society, disseminating biomedical perspectives into everyday life and into political and commercial discourse (Friedman, 2004; Lupton, 1994; Seale, 2002). They have also played an important role in the restructuring of biomedicine itself, shaping the articulation of biomedical knowledge with other forms of social knowledge and influencing practices and hierarchies within the biomedical world (Marchetti, 2010). Media training for administrators and other key personnel within health institutions and their employment of journalists is one manifestation of this restructuring.

At the same time that we have concurred with Clarke et al. (2003) in locating the proliferation of health news within a larger process of biomedicalization, we have attempted to deepen our understanding of its role. These authors roughly identify the mid-1980s as the onset of biomedicalization, although they note that the periodization is slippery and that medicalization and biomedicalization are not discrete and non-overlapping. Nevertheless, the features that seem to have positioned health news as an important factor in shaping these broader transformations occurred substantially earlier, starting in the 1960s and 1970s. Moreover, rather than a linear trend through the present, we note a decrease in some dimensions in recent decades. The actors projected as being involved in the flow of information have changed and to some extent diversified over the five decades covered in this study, shifting from a narrow focus on physicians and public health officials to include increasing role for research scientists, business, patient-advocacy and similar organizations, and lay voices. The role of journalists in initiating health news has become more active. Nevertheless, the penetration of biomedical perspectives into the public sphere and of the public sphere into biomedicine has not undermined the way that biomedical “insiders” continue to dominate the flow of information quite strongly.

We have traced the way this shifting role is lodged not simply in how biomedical content is reported but in ways that news coverage projects medicine as a communication system — how the production, circulation, and reception of biomedical knowledge constitutes and is constituted by events, subjects, and objects that are defined in communicative terms. Strikingly, biomedicalization seems to have rendered health news more conventional qua news: it has to a degree adopted conventions closer to those of political reporting, focusing increasingly on controversy and including more mixed and negative portrayals of biomedical actors, consistent with the “watchdog” function of journalism. As news locates health issues more centrally in the public sphere, they become subject to public debate and to communicative norms that apply in the public sphere generally. Studies in other countries (Marchetti, 2010; Verhoeven, 2008) have found results that are parallel in many respects.

This study is very much preliminary, given the complexity and diversity of contemporary health and medical reporting, which includes many subgenres. Nevertheless, the results reinforce the

insight of the biomedicalization literature that changes in communication, and in particular in news coverage, are intimately related with wider historical transformations in the social organization of health and medicine. For social scientists interested in the wider social impact and context of biomedicine, we would propose that health journalism represents a valuable site for future research, and for scholars of health news we urge attention to the wider social context in which the roles of health journalism are being transformed.

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