

## **CMPA BACKGROUNDER**

### **Media Coverage of The BPA Debate 2006-2012**

The ubiquitous chemical bisphenol-A (BPA) is found in many plastic items ranging from dental sealants to can linings. Debate over the safety of BPA has ebbed and flowed over the years, with several jurisdictions debating and sometimes passing bans on BPA in one or more products. There have also been several reviews of the scientific evidence on BPA by various regulatory bodies around the world. To date none of these have concluded that the chemical poses a significant risk to human health. However, numerous researchers and activists have argued for the opposite conclusion.

Along with other chemicals classified as endocrine disruptors, BPA has generated significant debate in the media. But heavy coverage is not the same as informative coverage. In order to understand how the media treated some important contextual features of this debate, we examined some significant aspects of BPA coverage in a wide range of media beginning in January 2006 and running through May 2012.

#### **OUTLETS**

Our media sample was chosen to cover a wide range of mainstream media outlets. These include major national newspapers as well as a range of daily newspapers around the country, magazines with public affairs content, and electronic coverage on ABC, CBS, NBC, CNN, PRS., and NPR,

The sample of commercial broadcast television captures both the flagship network evening news shows and the morning shows on the three major networks. Due to numerous schedule changes over the years at CNN, the sample had to be broader, including “American Morning,” “Newsroom,” “Lou Dobbs Tonight,” “CNN Live,” “Anderson Cooper 360” and “House Call with Sanjay Gupta.”

Public broadcasting was included to get a non-commercial perspective on the news. For PBS, the “NewsHour” was the signature broadcast. National Public Radio offered a larger group of shows, and the sample included flagship programs like “Morning Edition” and “All Things Considered” as well as programs like the “Bryant Park Project,” “Talk of the Nation,” “News and Notes” and “Day to Day.”

Sampling coverage in magazines was more difficult, given the multitude of choices. Our sample included traditional news magazines like *Newsweek* and *U.S. News and World Report*, as well as *The New Yorker*, a prestigious public affairs-oriented magazine. In order to examine information targeted to female audiences, the sample included both *Good Housekeeping* and *Redbook*. The final magazine in the sample was *Slate*, which is a hybrid between the worlds of print and newer digital offerings.

Using the Lexis/Nexis database, we first identified all stories that included a mention of either “bisphenol-A” or “BPA”. To refine the sample we then removed all stories that contained only fleeting mentions of BPA and those where BPA did not refer to the

chemical in question. We followed the same protocol using the Factiva database to collect all relevant coverage from a selection of broadcast and cable media. The results can be seen in Table 1.

| <b>Table 1</b>                |                         |
|-------------------------------|-------------------------|
|                               | Total Number of Stories |
| <b>Newspapers</b>             |                         |
| Washington Post               | 73                      |
| Milwaukee Journal Sentinel    | 54                      |
| San Francisco Chronicle       | 53                      |
| St. Paul Pioneer Press        | 43                      |
| USA Today                     | 40                      |
| Houston Chronicle             | 30                      |
| NY Times                      | 30                      |
| Pittsburgh Post Gazette       | 25                      |
| Oregonian                     | 25                      |
| San Jose Mercury News         | 19                      |
| Sacramento Bee                | 18                      |
| Deseret Morning News          | 17                      |
| St Louis Post-Dispatch        | 16                      |
| Buffalo News                  | 16                      |
| Investors Business Daily      | 16                      |
| Atlanta Journal Constitution  | 15                      |
| Dallas Morning News           | 13                      |
| Washington Times              | 13                      |
| Salt Lake Tribune             | 12                      |
| Chicago Sun Times             | 10                      |
| Seattle Post Intelligencer    | 10                      |
| Minneapolis Star Tribune      | 10                      |
| St Petersburg Times           | 9                       |
| Philadelphia Inquirer         | 9                       |
| Austin American Statesman     | 8                       |
| Daily News of LA              | 7                       |
| Cleveland Plain Dealer        | 7                       |
| Orange County Register        | 6                       |
| Denver Post                   | 5                       |
| NY Post                       | 5                       |
| Oklahoman                     | 4                       |
| Pantograph                    | 3                       |
| Capital Times (Madison WI)    | 3                       |
| The Times-Picayune            | 2                       |
| The Boston Herald             | 2                       |
| The Christian Science Monitor | 2                       |
| NY Daily News                 | 1                       |
| Las Vegas Review-Journal      | 1                       |

|                                 |     |
|---------------------------------|-----|
| <i>Newspaper Total</i>          | 632 |
| <b>Electronic Outlets</b>       |     |
| CNN                             | 49  |
| National Public Radio           | 16  |
| NBC News                        | 15  |
| CBS News                        | 12  |
| ABC News                        | 10  |
| PBS NewsHour                    | 2   |
| TV/Radio Total                  | 104 |
| <b>Magazines &amp; Journals</b> |     |
| Slate Magazine                  | 9   |
| Newsweek                        | 7   |
| U.S. News & World Report        | 8   |
| Good Housekeeping               | 2   |
| The New Yorker                  | 1   |
| Redbook                         | 1   |
| <i>Magazine total</i>           | 28  |

## AMOUNT OF COVERAGE

Overall we identified 764 stories, led by 632 newspaper articles, as well as 104 television and radio pieces and 28 magazine articles. This represents well over 100 news accounts per year over more than a six year period, representing strong and continuing media interest in BPA.

The amount of newspaper coverage varied widely across outlets, with the *Washington Post* leading the way (73 stories). The *Post* focused on the national policy debate -- both the FDA and EPA took up BPA reviews during our sample period -- as well as state-level debates. The *Milwaukee Journal Sentinel* (54 stories) stood out for its extensive explorations of the putative dangers of BPA and policy making at all levels of government. The *San Francisco Chronicle* coverage (53 stories) got a boost from the 2011 debate over banning BPA in products sold in that city. The *St. Paul Pioneer Press* (43 stories) covered many angles of the emerging debates over BPA, particularly its use in baby products. Rounding out the top five outlets was *USA Today* (40 stories), which covered the emerging health debates as well as various efforts around the country to ban BPA, particularly in baby products. The New York Times (30 stories) was notable for its light coverage of the chemical, relative to several of the other newspapers in the sample.

Among electronic media, CNN offered the most coverage with 49 stories, which ranged from policy debates to personal health advice. National Public Radio placed second with 16 stories. The three broadcast networks offered similar levels of coverage: NBC aired 15 stories, followed by CBS with 12 and ABC with 10. By contrast, The PBS "NewsHour" aired only two pieces.

*Slate* offered the most magazine coverage with nine stories, including both reprints from other outlets and original reporting. *U.S. News* and *Newsweek* followed close behind with eight and seven stories respectively. The two women's magazines offered sparse coverage, with only three stories, while the *New Yorker* ran just one piece.

Beyond the sheer amount of coverage, our analysis examined three elements of the debate that can help to put BPA risks in context and provide useful information for readers or viewers trying to make sense of claims and counter-claims about its effects. As with other debates over chemical safety, there is substantial debate over what scientific studies reveal about BPA. Hence, we examined three elements of how the scientific and regulatory debate on BPA is handled by the media – the effects of low doses on humans, the use of the precautionary principle in regulating BPA, and the regulatory decisions of the European Food Safety Authority (EFSA).

## LOW DOSE EFFECTS

A notable feature of the scientific debate over BPA and other endocrine disrupting chemicals is the argument that they affect human health at very low doses. However, the media often fail to convey to audiences just what is meant by “low” in this context. We reviewed all stories looking for mentions of “low dose” in connection with BPA.

| TABLE 2                |                                      |                |                            |
|------------------------|--------------------------------------|----------------|----------------------------|
|                        | All Stories Mentioning<br>“Low Dose” |                | Total Number of<br>Stories |
|                        | <i>N</i>                             | <i>Percent</i> |                            |
| <i>Newspaper Total</i> | 86                                   | (14%)          | 632                        |
| <i>Broadcast Total</i> | 13                                   | (13%)          | 104                        |
| <i>Magazine total</i>  | 4                                    | (14%)          | 28                         |
| <b>OVERALL TOTAL</b>   | <b>103</b>                           | <b>(14%)</b>   | <b>764</b>                 |

As Table 2 shows, the percentage of stories mentioning “low dose” exposures was virtually identical across media genres, appearing in about one of seven stories (14%) overall. This represents over 100 stories, making this a substantial feature of the coverage. As can be seen from the following examples, however, mentions of low dosages were usually very general in media accounts:

In more than 700 low-dose studies on animals and cells in test tubes, researchers say they've found effects that include enlarged prostates, altered mammary glands, genetic damage to eggs, changes to reproductive organs, accelerated puberty, reduced fertility and altered brain development. In one study of snails, there was such an overgrowth in ovarian cells that the animals exploded and died. [*Dallas Morning News*, 3/18/2008].

But more than 200 other studies have shown links between low doses of BPA and adverse health effects, according to the Breast Cancer Fund, which is trying to ban the chemical from food and beverage containers. [*St. Paul Pioneer Press*, 11/9/2009].

While a reader might infer from statements like these that BPA is dangerous to human health at low doses, they would have no idea how those low doses compare to the levels humans are exposed to in everyday life, or the threshold beyond which any exposure is hazardous to human health. To explore this question in greater depth, we examined every mention of “low dose” exposure to see if there was any effort to quantify the term.

We identified just 18 stories that made some effort either to quantify BPA low dose exposures or at least to put dosages in the context of common human exposures. Ten of these mentions simply placed “low dose” in the context of levels found in humans. For example:

Professor Frederick vom Saal: “Very low doses of this, below the amounts that are present in humans, when particularly exposure occurs in fetuses and newborns, you end up with those babies eventually developing prostate cancer, breast cancer. They become hyperactive.” [ABC “World News Sunday” 8/5/2007]

That leaves only eight stories, like the example below, which provided any sort of quantitative information:

“Tests of human blood have found BPA levels comparable to those used in the tests by the researchers,” says Patricia Hunt, a molecular geneticist at Washington State University in Pullman, Wash., and senior author of the report. The scientists exposed female mice to low doses of the chemical, in the parts-per-billion range. Earlier research has shown that BPA exposure in the adult female can cause defects in her eggs. [*USA Today*, 1/15/2007]

Thus, despite frequent media mentions that BPA is dangerous at low levels of exposure (hence more hazardous to humans who come into contact with the chemical even in very small amounts), news stories rarely gave readers or viewers any sense of just how low these “low” amounts are.

## **PRECAUTIONARY PRINCIPLE**

In addition to scientific discussions of BPA, there is an ongoing public debate over government regulation of this substance. We looked at two aspects of this debate that are particularly relevant to the media coverage. The first concerns the general principles underlying the debate over regulating BPA. One approach is the so-called “precautionary principle.” In the context of government regulation, this principle holds that, when a substance is suspected of causing harm, the burden of proof falls on those who believe it is *not* harmful, even if a specific causal link to harm has not been established. The idea is

often summed up in the media as “erring on the side of caution.”

By contrast, in the United States, the burden of proof lies on those who believe the substance *is* harmful. Government regulatory agencies conduct a risk analysis to determine whether a substance poses unacceptable risks to human health. In the absence of such a determination, the substance is allowed into the marketplace. (Manufacturers are required to provide regulatory agencies with scientific research that finds no harmful effects before a product using the substance under review is approved for public use.)

In our analysis, we looked for any mentions of the “precautionary principle” or discussions of erring on the side of caution when dealing with BPA. As can be seen in Table 3, only 53 out of 764 stories, or seven percent of the coverage, mentioned such an approach. It is important to note that mentioning a precautionary approach did not mean that it was endorsed in the story – only that the approach was discussed.

| TABLE 3                |   |       |                            |
|------------------------|---|-------|----------------------------|
|                        | All Stories Mentioning<br>precautionary principle |       | Total Number of<br>Stories |
|                        | N   | %     |                            |
| <i>Newspaper Total</i> | 40  | (6%)  | 632                        |
| <i>Broadcast Total</i> | 8   | (8%)  | 104                        |
| <i>Magazine total</i>  | 5   | (18%) | 28                         |
| <i>OVERALL TOTAL</i>   | 53  | (7%)  | 764                        |

Among newspapers in the sample, the *San Francisco Chronicle* and *Milwaukee Journal Sentinel* stand out with 11 percent of their stories mentioning or paraphrasing the precautionary principle. Together they accounted for nearly a third of all such mentions in the 38 papers studied.

In the case of the *Chronicle*, mentions were often linked to a local ordinance requiring that regulatory approach. The following example is typical of such discussions.

The San Francisco Board of Supervisors unanimously adopted the ordinance in June. It prohibits the sale, distribution or manufacture of toys and child care products intended for use by children under the age of 3 if they contain phthalates, which are used to soften polyvinyl chloride (or PVC) and bisphenol A, which is common in hard, clear plastic. The ordinance does not include penalties for violations.

The law is based on the city's "precautionary principle." The supervisors said they wanted to err on the side of caution and protect the youngest children. [*San Francisco Chronicle*, 10/26/2006]



For the *Journal Sentinel*, the extra attention to the precautionary principle stemmed from extensive coverage emphasizing the dangers of BPA and advice on how to avoid them.

Birnbaum [Linda Birnbaum, director of the National Institute of Environmental Health Sciences and the National Toxicology Program] said she would like to see the federal government use the precautionary principle to regulate chemicals. That approach, used in Canada and throughout Europe, requires that a chemical be proved to be safe before it is allowed to be used in commerce.

In the United States, chemicals are allowed on the market and removed only if they have been found to cause harm.

Regarding BPA, Birnbaum said there is enough uncertainty about its safety to caution people to avoid it in food contact items.

"It's simple enough to avoid," she said. "So, why not avoid a problem?"  
[*Milwaukee Journal Sentinel*, 12/6/2009]

### **European Food Safety Authority (EFSA).**

The other aspect of the regulatory coverage that we examined was highly specific -- references to BPA risk assessments completed by the European Food Safety Authority (EFSA). EFSA's decisions are important to the American regulatory debate because they are based upon application of the precautionary principle. Thus, they are often cited approvingly by critics of the current US regulatory regime, who favor more stringent regulatory standards.

In the case of BPA, EFSA issued its initial conclusion in 2006 and updated it in 2008, 2010 and 2011. Notwithstanding its use of the precautionary principle, EFSA reviewed the scientific literature on BPA and, like its counterparts in the US, determined that there was insufficient evidence of BPA's dangers to justify banning its use in consumer products.

Just as there were relatively few media references to the precautionary principle in general, there were few references to this particular application of the precautionary principle to BPA. There were only 41 mentions of this European risk assessment across all the outlets we studied. This was overwhelmingly the province of newspapers, with 37 of the 41 mentions found in print. *USA Today* printed the most mentions (7) followed by the *Washington Post*, *San Francisco Chronicle*, *New York Times* and *San Jose Mercury News* with included 3 mentions apiece. There were only three mentions of this risk assessment on all electronic outlets combined -- one apiece on CNN, NBC and PBS. Among the magazines only *Slate* mentioned the EFSA finding.

A closer look at mentions of the EFSA assessment reveals the prominence of industry representatives in this area. Of the 41 mentions, 16 originated with a representative of the chemical industry or another industry involved in BPA use. The American Chemistry Council alone accounted for nine mentions, with seven more coming from other

business-related organizations. Journalists accounted for 11 mentions. Government regulatory bodies were the source of 10 more mentions. The remaining four mentions came from other experts and commentators.

## CONCLUSION

We examined 764 news stories on BPA in a wide range of print and electronic outlets over a period of more than six years from 2006 to 2012. This represents a substantial amount of coverage, reflecting an ongoing scientific, public, and government regulatory debate throughout this period.

Despite its volume, however, the coverage failed to illuminate some significant aspects of the debate. First, an important aspect of the debate concerned the chemical's effects on humans at low dosages. Although this was frequently mentioned, readers or viewers were rarely given any context within which to judge the meaning of "low." Only eight mentions – about one per hundred stories – provided any sort of quantitative information, such as parts-per-billion.

Second, critics of BPA often called for the chemical to be evaluated according to the precautionary principle, under which the burden of proof is on those who support its acceptance to show that it is *not* harmful, as opposed to the current approach of allowing a chemical into the marketplace unless there is evidence of harm. This is a crucial element of the debate over regulating BPA and other chemicals. Yet the term was mentioned or the concept paraphrased in only one out of every 14 stories.

Third, there was also little coverage of the repeated approval of BPA for public use by the European Food Safety Authority (EFSA). This is frequently cited by supporters of BPA regulatory approval in this country, because EFSA's decision was based on an application of the precautionary principle. As noted above, this is a more rigorous standard often favored by critics of the Food and Drug Administration's approval of BPA in the US.

These findings suggest that the heavy volume of media coverage of the BPA debate has failed to contribute to public understanding of concepts and events important to regulatory decisions on the chemical. Of course, there are many other facets of the coverage that were not included in this analysis, which may speak better of the media's performance. But our study raises again the frequently voiced concern that on important public debates involving complicated technical issues, the media coverage is often a mile wide and an inch deep.