

- Financial penalties if youth smoking rates do not fall 42% from 2003 levels by 2010 (rather than 2013, as proposed the DOJ), with levels based on monthly rather than daily smoking rates in order to account for experimentation as well as regular smokers.
- Expanded authority and jurisdiction for the Independent Investigations Officer appointed by the Court to monitor compliance by the tobacco companies.

These and thousands of other cases of a similar nature indicate that the battle to eliminate or at least control the consumption of tobacco still has a long way to go. In the meantime, more than 440,000 Americans die every year of cigarette-attributable illnesses (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5235a4.htm>). On the positive side, there is every indication that smoking by teens is declining. This trend is constantly being put to the test by another trend showing an increase in the depiction of smoking by characters in movies or on television to a greater extent than presettlement days. Despite pleas from health authorities, the film and television industries show no signs of relenting from this practice, which is viewed as a free speech issue. Considering the many years that the tobacco industry had to wield its considerable propaganda power to promote smoking as contributing positively to one's lifestyle, as well as the fact that smoking is still seen as a "glamorous" activity by many, especially the young, the battle to eliminate the continued harmful effects of tobacco is far from over.

Premarin: A Bitter Pill to Swallow

Most people take their doctors' prescriptions without asking many questions. They probably assume that pharmaceuticals are produced in laboratories from chemicals or plant derivatives. Menopausal and postmenopausal women were regularly put on hormone replacement therapy (HRT) or estrogen replacement therapy (ERT), which means taking a daily estrogen supplement together with progesterone or taking estrogen alone for approximately 25 days each month. The predicted benefits of ERT are reduced menopausal symptoms and possible prevention of osteoporosis, heart disease, colon cancer, and Alzheimer's disease, whereas the risks may include uterine and possibly breast cancer, blood clots, and gallbladder disease (J. Brody, 1997a, 1997b, 1997c, 1997d; Nash, 1997). Until 2002, about one third of the more than 30 million postmenopausal women in the United States took estrogen, and almost 90% use the brand known as Premarin, which is manufactured by Wyeth-Ayerst Laboratories in the form of pills, creams, injections, and patches. Wyeth-Ayerst also manufactures Prempro, a single tablet that combines Premarin and a progestin, PrempPhase, and Prempac-C.

In 2002, the National Institute of Health announced that it was halting the Women's Health Initiative HRT study due to a suspected link between hormone replacement therapy and an increase in incidence of breast cancer and other serious health risks occurring in the control group. This announcement caused millions of women to stop taking Premarin and Prempro. Sales revenues for these products plummeted, and, for a while, advertising for the drugs ceased.

Premarin, however, was at the center of an intense controversy before 2002. Not only did the pharmaceutical companies that manufacture synthetic and generic estrogens and related drugs want to compete with Wyeth-Ayerst's best-selling product, but the process of acquiring the estrogens that make up Premarin created revulsion and hostility among many physicians, animal protection organizations, and a growing portion of the public. Then, as now, others believe that estrogen in the form of a drug is not necessary at all and advocate alternate natural methods. All of this has created a very strong counterpropaganda campaign, thus making this case study a difficult one in which to determine the primary propagandist. An analyst could say that the animal rights organizations, the other pharmaceutical companies, and alternative medical groups are the primary propagandists; however, because Premarin appeared first and because there are several different counterpropaganda groups, we have decided to focus on Wyeth-Ayerst as the primary propagandist and the opponents as the counterpropagandists.

The Ideology and Purpose of the Propaganda Campaign

Before 2002, Wyeth-Ayerst Laboratories dominated the world estrogen market for more than 50 years. Wyeth-Ayerst holds 80% of the estrogen supplement market worldwide, Premarin was Canada's most lucrative pharmaceutical export, and Premarin was the most prescribed drug in the United States. Clearly, the ideology for Wyeth-Ayerst was to maintain its monopoly over the estrogen market while making huge profits, and the purpose was to prevent government approval of a generic Premarin, to have consumers believe that Premarin is a superior product, and to defend itself against animal cruelty charges. Before 2002, production of Premarin generated \$860 to \$930 million yearly for Wyeth-Ayerst, and in 1995, sales were over \$1 billion. As the women of the baby boom generation matured into their 40s and 50s, Wyeth-Ayerst expected to double or even triple earnings from the production of Premarin. If a generic Premarin were approved, the financial loss for Wyeth-Ayerst would have been enormous because most prescription

benefit plans, health maintenance organizations (HMOs), and Medicare and Medicaid are required to use the lower cost generic versions of a drug.

The Context in Which the Propaganda Occurs

The name *Premarin* is a contraction of “*pregnant mare urine*” (PMU) because it is made from urine extracted from pregnant mares kept on horse farms that contract independently with Wyeth-Ayerst Laboratories, which have been manufacturing the prescription drug with the same well-ordered system since 1942. To produce the level of urine necessary for Premarin, female horses must be impregnated, often through artificial insemination, and kept tied up indoors for at least 6 of the 11 months’ gestation period in stalls that are 8 by 3½ by 5 feet. The horses are fitted with a urine collection device (UCD) and are unable to lie down. Any exercise outside the stall is at the discretion of the farm manager. Drinking water is limited so that the urine will yield more concentrated estrogens. Because they are tied in front and strapped in behind, these horses cannot turn around or take more than two or three steps forward or backward (Eke, 1996). The foals that are born are seriously endangered, for there is a 67% mortality rate in the first week after foaling, followed by a 45% mortality rate the following week (Hass, Bristol, & Card, 1996). Those that survive are sold, mostly for human consumption. Foals are slaughtered in Canada and the frozen meat sent to Europe, or the live foals are shipped to Japan, where tender foal meat is in demand (Paulhus, 1996). This process violates the USDA’s “no live export for slaughter” rule, but no one has enforced it. Within 2 weeks of giving birth, the mares are impregnated again and returned to the PMU production line.

Owners of the PMU farms are paid according to a prescribed quantity of concentrated horse urine, but they also sell the foals when they are only 3 to 4 months old to feedlots and slaughterhouses. The PMU mares are regarded as producers of urine, whereas the foals are regarded as “by-products.” One Wyeth-Ayerst representative said, “See, the foals—and the mares which can’t get pregnant any more—they are the by-product of the PMU industry. We crush ’em and recycle ’em, just like cans” (D. Jones, 1995, p. 3).

There were approximately 600 PMU farms in Canada, mostly in Manitoba, Alberta, and Saskatchewan, and about 40 in the United States, mainly in North Dakota. PMU farms had been in Ontario, but the government there has strict regulations regarding them, and allegations of horses living in squalor and of mistreated foals resulted in citations and revoked permits. For many years, with the exception of Ontario, little notice had been taken of the PMU farms. In 1995, however, after receiving repeated allegations of abuse to mares on PMU farms, the Canadian Farm Animal

Care Trust arranged to have 12 equine experts inspect 32 of the PMU farms selected by Wyeth-Ayerst in Saskatchewan, Alberta, and Manitoba. Wyeth-Ayerst representatives were present during each inspection. The 12 experts found mares in stalls that were too small, improper bedding, inadequate sanitation, untreated illnesses, lower limb abnormalities, skin abrasions from the urine-collecting harnesses, and an overall lack of water, grooming, and exercise (Russell, 1995a, 1995b; Salter, 1995).

Although Wyeth-Ayerst indicated it would take constructive action, its only response was that it would study the watering situation. Carrie Smith Cox, vice president for women's health care at Wyeth-Ayerst, wrote in response to the report, "Our goal is to implement continuous watering for the horses in the 1996–97 season as long as it does not affect the health of the horses or the quality of our product" (Black, 1996, p. 12). Wyeth-Ayerst denied subsequent requests for further inspections (Salter, 1995).

Another problem related to the PMU farms has been water pollution, for once the urine is collected, it is brought to a plant in Brandon, Manitoba, where the estrogen is extracted by a process that produces waste urine and ammonia. In 1996, the plant generated 4 million gallons of waste urine (Black, 1996). Canadian legislators and environmentalists expressed concern about the taxed sewage system and the potential for an overflow of millions of gallons of waste urine into the Assiniboine River, a water source for much of Manitoba (International Generic Horse Association [IGHA], 1998).

Critics of Wyeth-Ayerst and the PMU farms claim the farms use an antiquated method of producing estrogen and therefore urge women who take estrogen to switch to alternatives. At least a dozen synthetic and plant-derived estrogens have been approved by the FDA—for example, Climara, Estrace, Estraderm, Estradiol, Neo-Estrone, Menest, and Ogen—but these are not generic Premarin.

Duramed Pharmaceuticals of Cincinnati developed Cenestin, a generic, vegetable-based synthetic version of Premarin. Barr Laboratories has developed a generic Premarin, but Duramed became the test case. In 1991, Duramed applied to the FDA for approval of Cenestin, but Wyeth-Ayerst alleged that the generic estrogen did not mimic Premarin identically because it entered the bloodstream faster than Premarin. Wyeth-Ayerst also "issued dire warnings that this alleged discrepancy could increase the incidence of cancer in users" (Schatz & Paige, 1997, p. A22), and the FDA dropped Duramed's application. Meanwhile, Wyeth-Ayerst's Canadian version of Premarin was found to be as fast acting as the generics. Canada's regulatory agency rejected Wyeth-Ayerst's objection to a generic Premarin produced by ICN Canada Ltd. and left it on the market. A Canadian drug advisory

committee concluded in a 1991 report, “If Wyeth’s position were correct, then Premarin had been producing unsafe plasma levels in Canadian women for years” (J. Carey, 1997, p. 130). This statement apparently went unnoticed by the FDA. Meanwhile, Duramed solved the absorption problem by 1994, but this time Wyeth-Ayerst contested FDA approval of Cenestin on the grounds that the generic drug lacked one of the estrogens, called delta 8,9 (dehydroestrone sulfate), that is present in Premarin. The FDA gave a unanimous ruling in 1994 that delta 8,9 was an impurity and not a required ingredient of any generic.³ Duramed applied for FDA approval of Cenestin in September 1995, and Barr followed the next July (J. Carey, 1997). “The FDA led Duramed and Barr to believe that approval of their generic versions was imminent” (Schatz & Paige, 1997, p. A22), but the conflict moved into the political arena.

Identification of the Propagandist and the Structure of the Propaganda Organization

The propagandist is Wyeth-Ayerst Laboratories, a major division of American Home Products Corporation and Whithall Laboratories, a *Fortune* 150 global pharmaceutical company, makers of Advil, Aleve, Anacin, Black Flag, Chef Boyardee, Dristan, Easy Off, Jiffy Pop, Neet, Pam, Preparation H, Quick and Easy, Sani-Flush, Woolite, and various other products, with headquarters in Philadelphia, Pennsylvania. Wyeth-Ayerst is also the manufacturer of phen-fen and Redux, the diet drugs banned for causing heart damage. Wyeth-Ayerst executives and spokespersons speak for the company. Wyeth-Ayerst also has several lobbyists in Washington, and it hired Burston-Marsteller, the largest public relations firm in the United States, to respond to the negative publicity generated by the controversy.

The Target Audience

The target audience for the sale of Premarin was the millions of menopausal and postmenopausal women and their physicians. As stated earlier, Wyeth-Ayerst will earn \$1 billion annually from Premarin sales alone. Women who used Premarin were targeted to stay with the brand, and potential new users were encouraged to use the product to protect themselves from heart disease, osteoporosis, and other health problems. Other audiences were targeted in the controversy as well—women’s organizations concerned about issues related to women’s health and key Washington politicians. Each of these groups is discussed in the section “Special Techniques to Maximize Effect.”

Media Utilization Techniques

Wyeth-Ayerst employed numerous media techniques, both offensive and defensive, to maintain the credibility of its product and its activities. It had a massive advertising campaign with full-page spreads in news, special interest, and “women’s” magazines, as well as five-page advertisements in health magazines. The February 9, 1997, issue of *Time* had a full-page advertisement, “The Body of Evidence,” that also appeared in news, history, health, and women’s magazines with increasing frequency. It not only said that estrogen combats “uncomfortable symptoms” of menopause but also suggested that it aids sexuality, the brain (memory, cognitive functioning, and the consequences of Alzheimer’s disease), the eyes (cataracts), teeth, the heart, bones, and the colon. The advertisement said, “So-called ‘selective’ or ‘designer’ estrogens may not impact a number of health issues associated with menopause.” The terms *selective* and *designer* are not used in any other literature about synthetic or plant-derived estrogens examined in this study; thus, it is clear that they are intended to have negative connotations. An advertisement for Prempro, the combination of Premarin and a progestin, in *Smithsonian* magazine said, “Today, more than 8,000,000 American women take Premarin. Premarin, the most studied of all estrogens, has been earning women’s confidence generation after generation.” Physicians who prescribed Premarin gave patients a complimentary video and brochure about the drug. In the video, an actress portrayed Dr. Hughes, a woman who appears to be older than 50 and wears a white lab coat. She discussed the problems of menopause with a group of women and then said, “There are, however, other problems related to estrogen loss that you don’t feel, and these problems won’t go away. . . . But don’t get discouraged because treatment is available. . . . If taking estrogen is right for you, there is a product your doctor can confidently prescribe . . . the Premarin regimen is the one I prescribe.” She ended by holding up a Premarin tablet and stating, “This is what Premarin looks like. There is no other.” The brochure, titled *Quality, Commitment, and Caring*, stated, “No synthetic components have ever been introduced to the unique combination of natural estrogens.” The brochure not only praises Premarin and its “unique” qualities but also featured color photographs of beautiful horses grazing in fields. The captions with these photographs stated, “The mares are highly prized and well cared for” and “Providing for the care and well-being of horses is crucial to the production of Premarin.” The text stated, “No other type of livestock ranching has as many checks and balances for animal care and welfare.”

The coauthor of this book, Victoria O’Donnell, called the Wyeth-Ayerst’s toll-free number to discuss the treatment of the PMU farm horses, and the

woman who answered asked whether she could send out materials. A letter of thanks for the “opportunity to correct the misinformation you received about the care of the horses in PMU production and about the importance of Premarin to millions of women” arrived a few days later. The letter said that the horse farms are run by families, many of them third- and fourth-generation ranchers. It also included a statement by an equine veterinarian, Dr. Shauna L. Spurlock: “In my opinion, the aspect that sets these ranchers apart and makes me, as an equine practitioner, somewhat envious is the fine standard of care that exists and their determination to improve the quality of the care of the horses.” The five-page letter ended with a warning that “the conjugated estrogens in Premarin are the only approved hormone replacement therapies available to women with an intact uterus.” Included with the letter was a copy of Dr. Spurlock’s 10-page report, *Care and Management of Horses at PMU Ranches*.

PMU ranchers have their own association, the North American Equine Ranching Information Council (NAERIC), which has its own Web page (<http://www.naeric.org>). The page discussed the care of the PMU horses, assuring the reader that PMU ranching has “more checks and balances to ensure animal care and welfare than any other livestock sector, making it one of the most regulated and closely inspected equine-related activities in the world.” The inspections are done by NAERIC members and selected veterinarians. Today there is no mention of the PMU horses on NAERIC’s home page on the Web, but the slogan at the top of the page states, “Promoting the unique partnership between Agriculture and Women’s Health Care.” There is also a promotion for the Wyeth Equine Ranching Scholarship for children and grandchildren of equine ranchers. This is the only time Wyeth is mentioned.

Special Techniques to Maximize Effect

According to Tom Schatz and Leslie Paige in the *Wall Street Journal* (1997),

American Home Products CEO John Stafford attended one of President Clinton’s now-famous White House kaffeeklatsches. Shortly thereafter, American Home Products bestowed \$50,000 on the Democratic National Committee, the company’s only soft-money contribution to the Democratic Party on record at the Federal Election Commission. (p. A22)

Wyeth-Ayerst’s lobbyists recruited Senators Barbara Boxer, Bill Bradley, Olympia Snowe, Barbara Mikulski, and Patty Murray to write letters urging

the FDA to halt the Duramed generic drug's progress (Schatz & Paige, 1997). Senators Mikulski and Murray coauthored a letter that said, "[We seek] the FDA's assurance that it has no intention of approving a generic version of Premarin that lacks the same active ingredient as the innovator" (Mann, 1997, p. E13). Eddie Bernice Johnson, a representative from Texas and a former nurse, originally supported the generic drug because it would have enabled women with low incomes to start and stick with a program of the low-cost generic drug, but the company's lobbyists talked her into switching sides. She said, "I just have a strong feeling that an inferior generic is no bargain" (J. Carey, 1997, p. 130).

Women's groups were enlisted to join the cause, such as the Business and Professional Women's Association, the American Medical Women's Association, the Women's Health Research Institute, and the National Osteoporosis Foundation. "All of these groups received thousands of dollars in funding from Wyeth-Ayerst" (Schatz & Paige, 1997, p. A22). Jane Tobler, a communications officer for the Business and Professional Women's Association, acknowledged that its foundation had received \$65,000 from Wyeth-Ayerst (Mann, 1997). The Women's Health Research Institute is a subdivision of Wyeth-Ayerst working to determine the effect of HRT on postmenopausal women with heart disease (D. Shaw, 1997).

In the House, Representatives John Dingell and Ron Wyden, and in the Senate, Senator John Glenn, demanded that the FDA explain the delays in decision making and noted that consumers would save money should the generic drug be approved (D. Shaw, 1997). Senator Mike DeWine asked Commissioner David Kessler to investigate whether key regulators, including those who had final approval authority on a generic Premarin, "may have been removed or transferred from the review process." Senator DeWine received no response but said the scientists and medical community should be making this decision. "If not, that's certainly very troubling" (D. Shaw, 1997, p. 3).

According to D. Shaw (1997), Roger Williams, director of the FDA Office of Generic Drugs, had repeatedly rejected the notion of reclassifying delta 8,9 as an essential ingredient. Since then, a divisional reorganization occurred in the FDA, and Williams was no longer directly involved in the Premarin matter. The new top official making these decisions was now physician Janet Woodcock, director of the FDA Center for Drug Evaluation and Research. Wyeth officials said they had nothing to do with any changes at FDA. In March 1997, Dr. Woodcock testified before a Senate subcommittee that a scientific decision had been made, although she would not say what the decision was. On May 6, 1997, the FDA released its decision—a denial of the approval of a generic drug, citing as its reason the absence of delta 8,9 in the

Premarin alternative. Schatz and Paige (1997) cited an internal document released by the FDA's Office of Pharmaceutical Science, dated May 3, 1997, that disputed Wyeth-Ayerst's scientific claims about delta 8,9 because 25 other inactive impurities are also in Premarin. Schatz and Paige deduced from the memo that the FDA's decision on generic alternatives to Premarin "was based more on politics than science" (p. A22). On May 14, the inspector general of the U.S. Department of Health and Human Services contested the lack of documentation supporting Wyeth-Ayerst's own changes to Premarin (Schatz & Paige, 1997). Judy Mann (1997) wrote in the *Washington Post*, "Approval for drugs should be based strictly on science—not on politics, lobbying pressure or money" (p. E13). John Carey (1997) wrote in *Business Week*, "In a growing trend, brand-name companies such as Wyeth-Ayerst are using regulatory and legal tactics to delay the approval of cheaper generics" (p. 128). Schatz and Paige criticized the FDA: "In making this important decision, the agency appears to have sacrificed science and the public health to political considerations" (p. A22). Wyeth-Ayerst's executives, however, have stood by their actions. Michael Dey, president of the Wyeth-Ayerst unit ESI Lederle Inc., said, "We make no apologies for defending our product and its earnings" (J. Carey, 1997, p. 131).

In addition to giving physicians Premarin videos and elaborate brochures, Wyeth-Ayerst sponsored and funded symposia for the opinion leaders, the physicians, such as the one held in Laguna Niguel, California, in 1987—*The Long-Term Effects of Estrogen Deprivation*. The proceedings of these symposia are published and sent to physicians. The usual "gifts" are also given to physicians by the pharmaceutical salespersons—Post-it notes, pens, calculators, and samples.

Audience Reaction to Various Techniques

Washington politicians, women's organizations, and FDA decision makers reacted favorably to Wyeth-Ayerst's propaganda campaign despite knowing that approval of the generic Cenestin would have saved the government, hospitals, and managed care organizations almost \$300 million per year because Cenestin would have cost \$3 per month, compared with Premarin's \$12 to \$16 per month (Mann, 1997, p. E13; Schatz & Paige, 1997, p. A22). Certain physicians, however, stopped prescribing Premarin for their patients in favor of synthetic estrogens. It is interesting to note how many have either given public testimony or written articles to state their position. Ray M. Kellosalmi is a physician at Peachtree Medical Center in Peachland, British Columbia. He used to prescribe Premarin until he learned of the conditions on the PMU farms. Dr. Kellosalmi writes articles for

publications such as *Family Practice* and encourages his patients to write letters to the editor to inform others about the PMU farms. He wrote the following in the May 8, 1995, article “Inhumanity by Prescription” in *Family Practice*:

During the last several months, I have discussed the issue of conjugated equine estrogen with postmenopausal patients asking about ERT. Fully 100% of those patients have chosen another option. Unfortunately, for physicians it is easy and comfortable to prescribe drugs that have been around for a long time. It is also easy to not think about our contribution to the cruel chain of events that our prescriptions may allow, and thus the PMU industry is supported by our ho-hum acquiescence. (p. 9)

Phillip Warner, an Orinda, California, gynecologist who is the director of the Menopause Clinic of Northern California, stopped prescribing Premarin in 1994. Warner, who writes letters to the *New York Times* criticizing Premarin, spoke at a press conference in Fargo, North Dakota, where some PMU farms are located. He said,

Premarin is no longer the most appropriate technology—if we were starting from scratch today to replace the human hormone that women lose at menopause, we would not be looking to the horse. Premarin is helpful, certainly, but it is no longer the most useful hormone-replacement-drug. (IGHA, 1998, p. 5)

People for the Ethical Treatment of Animals (PETA, <http://envirolink.org/arrs/peta/index.html>) sent literature about PMU farms to a group of physicians representing a cross section of the United States and asked for a response from them. Of those who responded, 63% said they were more likely to prescribe synthetic estrogen after being made aware of the conditions of the horses on the PMU farms. Nine comments from these physicians are posted on a Web page (athena.athenet.net/nrspntg/PRNnewsmag.html). Five female and four male physicians attested to the fact that they no longer prescribed Premarin and that synthetic estrogens such as Estradiol or Estrace were their drugs of choice. No conclusions can be drawn from a sample this small; however, physicians were important opinion leaders of persuasion in this controversy.

Other audiences did not openly oppose Premarin but rather supported alternative drugs or a lifestyle that includes a healthful diet and exercise. New drugs have been developed to combat osteoporosis and other postmenopausal disorders. Raloxifene and Fosamax are among several new drugs that can help women at risk of developing osteoporosis, as well as

those who have it. They may be acceptable substitutes for estrogen (J. Brody, 1997d). Eli Lilly and Company applied to the FDA to market Raloxifene under the trade name Evista (Mestel, 1997).

Some physicians and pharmaceutical company advertisements are advocating a healthy lifestyle of diet and exercise instead of drugs for postmenopausal conditions. The most prominent physician who makes this case is Susan Love, a breast cancer specialist at the University of California at Los Angeles. Dr. Love forecasted that scientists do not know enough about the risks and benefits of estrogen to be prescribing it so widely (Nemecek, 1997). Although she believes that estrogen therapies are helpful for women who have had hysterectomies, she only advocates short-term use of hormones—3 to 5 years. Her main concern was that estrogens may cause breast and uterine cancer, blood clots, and gallbladder disease. Her position is this:

Menopause is not a disease; it is a normal part of life. . . . Women must redefine menopause as something natural. We need to make sure that we have accurate information and not wishful thinking. And we must be on our guard lest vested interests sell us a bill of goods. (Love, 1997, p. A25)

She has written two best-selling books—*Dr. Susan Love's Hormone Book* and, with Karen Lindsey, *Making Informed Choices About Menopause*—and she regularly appears on talk shows and has been interviewed in *Ms* (Felner, 1997), the *New Yorker*, and *U.S. News & World Report* (Shute, 1997). Love and others support a natural diet of soy foods, fiber, vegetables, and fruits plus a regimen of exercise (J. Brody, 1997a; Gleason, 1994).

Lilly ran nine-page advertising supplements in health magazines (e.g., *Prevention*, October 1997), claiming, “Of course there’s life after menopause.” Interestingly, this pharmaceutical company was not advertising a drug, although it stated, “Scientists are continuously studying new treatments that may help prevent or treat the diseases associated with menopause. You should check with your doctor about the availability of these new treatments.” In fact, one section of the advertisement is under the heading “Really *Talk* with Your Doctor.” It says, “Communicating openly with him or her is a critical part of protecting your health after menopause.” The last part of the advertisement was a full-page spread in deep red with the beginning of a question in white letters: “If estrogen is the answer.” The next page (in white with black letters) has a continuation of the question in red letters: “Why are there so many questions?” The advertisement ended with a reminder that Lilly was conducting research to find new alternatives to estrogen and offers a toll-free number to call for information.

Counterpropaganda

The most vocal counterpropagandists were nearly all the major animal protection organizations that oppose the PMU farms via major articles in their magazines and newsletters. The American Society for the Prevention of Cruelty to Animals (ASPCA), one of the oldest and most traditional animal protection societies, featured cover stories in its magazine *Animal Watch* about the PMU mares since 1995. These articles not only discussed the inhumane conditions of the horses but also summarized health studies about the hazards of estrogen or recommended alternative drugs and lifestyles. Wyeth-Ayerst was prominently mentioned in these articles, and readers were advised to write to Robert Essner, president of Wyeth-Ayerst, and to John Stafford, CEO of American Home Products, in protest. An article titled “Canada’s Foals” (P. Clark, 1997), in the fall 1997 *Animal Watch*, included a plea to readers to adopt one of what the organization calls the “Premarin foals” to save them from slaughter, but it also cited a June 15, 1997, article in the *New England Journal of Medicine* that had a study whose researchers concluded that “women who use hormone therapy are thirty to forty percent more likely to develop breast cancer than women who have never taken menopausal hormones” (P. Clark, 1997, p. 26). The article ends with a motivational appeal:

Is there any hope for ending the holocaust for horses written into every prescription for Premarin? . . . It is estimated that for every 150 patients who change their prescriptions from Premarin to a plant-derived or synthetic estrogen product, one mare is taken out of production. . . . The struggle to free the Premarin mares and prevent thousands of foal deaths each season will ultimately be won quietly, without fanfare, at the prescription counter. (P. Clark, 1997, p. 27)

The Humane Society of the United States (HSUS) also featured articles about the PMU mares in its attractive magazine, *HSUS News*. The HSUS also took direct aim at Wyeth-Ayerst for giving the horses “lives of misery” and for sending young foals to slaughter. An insert in one article, “What Women Should Know,” gave advice about whether to take estrogen and suggested synthetic or plant-derived drugs. *Humane Review*, a newsletter from the New York State Humane Association, discussed “the cruelty of Premarin” and gave the names of alternative drugs “that produce fewer side effects” (Cheever, 1995, p. 3). The article “Premarin: Prescribed Cruelty” (1997) in the International Society for Animal Rights (ISAR) report also offered alternatives to Premarin. This article urged its readers, “Spread the Word: We must keep informing physicians and patients on the facts regarding

Premarin.” The article concluded with offers of reprints of the article to leave in physicians’ waiting rooms (ISAR, 1997, p. 10).

Several horse organizations and horse magazines have also joined the counterpropaganda protest. The International Generic Horse Association (IGHA) had an extensive Web page devoted to the PMU mare situation. This group, which does not solicit donations, included much information about Wyeth-Ayerst and Premarin. It said the following under the heading “The solution is really quite simple . . .”:

There are currently 9 million women taking Premarin. Educating those 9 million women (and their doctors) as to how Premarin is actually produced, and having them use one of the many synthetics now available as a substitute, will eventually dry up all the profits from Premarin production.

It ended with the slogans “ZERO women taking Premarin equals ZERO Premarin produced!” and “Just say NEIGH (to Premarin)” (home.earthlink.net/ighahorseaid/pmu_link). The IGHA urges horse lovers to wear purple ribbons (similar to the AIDS red ribbons) to let their protest be known. Actor Billy Bob Thornton wore one when he accepted his Oscar at the 1997 Academy Awards. The IGHA Web page as of March 5, 2005, continues to include petitions that one can download and addresses for sending letters of protest regarding the mistreatment of horses on PMU farms. The IGHA Web page in 1998 expressed gratitude to Chris Carter and the *Millennium* television series, episode 119, which depicted the character Frank Black, played by Lance Henriksen, being shocked when a veterinarian tells him about the PMU farms and about shipping the foals off to slaughter. The killer of women and horses in the episode, it turned out, was raised on a PMU farm. Carter was alleged to have used the IGHA Web site as a reference for writing this episode. Readers of the Web page were asked to contact Fox Broadcasting to ask that the episode be aired again (www.igha.org/pmu_new).

The most active group has been PETA, which uses direct mail, brochures, celebrity testimonials, letters to government officials, demonstrations, and a Web page to protest Wyeth-Ayerst and the conditions of the PMU farms. This organization claims 500,000 members and says it is the largest animal rights organization in the world. If you called its Premarin number (800-KNOW-PMU), you would hear Dr. Susan Clay tell you, “Crush a Premarin pill, and you can smell the odor of horse urine.” For several years every issue of PETA’s *Animal Times* had articles about Premarin, featuring many movie actresses, including Hayley Mills, Lesley Anne Down, Gates McFadden, and Dame Judi Dench, holding a sign that proclaims, “I’ll never take Premarin!” If a woman writes to PETA, she can get her own sign, have her picture taken

with it, and have her picture added to the hundreds of pictures of ordinary women holding the same sign with their names on it in a huge photo album on display at the Virginia headquarters of PETA.

Comedian Tracy Ulmann's face appeared on a PETA brochure with yellow around her lips and a shocked look on her face with the question, "What's in your estrogen drug?" at the top and the answer as a caption under her face, "URINE?!"

Actress Mary Tyler Moore made a video in which she proclaims, "I'll never take Premarin! No horses will suffer and die for me."

British television actress Ronnie Townsend, with her long hair covering her breasts, rode nude on horseback through the streets of Coventry, England, with a sign stating, "This lady says NEIGH to Premarin," as did Carrie Kramer in front of the FDA's offices in Washington, D.C. Animal protection activists threw horse manure on the steps of the agency in protest of the treatment of PMU horses.

PETA offers advice to women about managing menopause with natural foods or synthetic estrogen and suggests various strategies for protesting against Wyeth-Ayerst, including writing letters to local newspapers, members of Congress, the USDA, and various offices in the FDA; signing petitions; and making toll-free calls to Wyeth-Ayerst. PETA has filed a legal complaint with the FDA, asking that it require Wyeth-Ayerst to label Premarin to let consumers know its main ingredient is horse urine. The current label says "conjugated estrogens." The complaint is still pending.

Effects and Evaluation

Clearly, the powerful corporation American Home Products and Whithall Laboratories, as well as its major division Wyeth-Ayerst, won the battle to keep the generic Cenestin off the market. Wyeth-Ayerst plants had planned to triple the current processing of Premarin to more than 9 million gallons a year, according to the company's 1997 annual report. As the women of the baby boom generation mature, Wyeth-Ayerst expected earnings to reach nearly \$2 billion annually by the year 2000, when more than 50 million women reached menopause.

Another company, Natural Biologics, Inc. of Minneapolis, Minnesota, planned to establish 100 PMU farms in the United States in 1998. This company had issued several promotional brochures that list the "positive" aspects of urine production and was selling franchise licenses in 1998 (IGHA, 1998).

After the announcement by the National Institutes of Health that HRT could possibly be linked to serious diseases, the demand for Premarin declined. Sales plummeted by 30% in 2003 and continue to do so as more studies link

the drug to serious health consequences. Wyeth Organics, the arm of the company that coordinates the horse farms, began to cut its PMU contracts by notifying PMU farmers in Alberta, Saskatchewan, and Manitoba that they would be reducing the number of ranchers who produce the urine by one third. They also reduced production at their own plant in Brandon, Manitoba, downsizing by 50% the number of horses required for urine production. Premarin, once the most prescribed drug in America, is now the fourth most prescribed drug in the United States and Canada. Wyeth-Ayerst is attempting to increase its sales in foreign markets to compensate. In March 2005, a Florida judge said that as many as 300,000 women could sue Wyeth as a group over claims that they were injured by Wyeth's Prempro. Shares of Wyeth fell 22 cents to \$41 on the New York Stock Exchange (*Los Angeles Times*, March 8, 2005, p. C3).

In July 2003, federal regulators approved a lower dose version of the hormone therapy treatment. Almost immediately, Wyeth-Ayerst started a new advertising campaign on television and in magazines such as *Ladies Home Journal*, *Redbook*, and *Time*, with the slogan, "Go Low with Premarin" and "Go Low with Prempro." Celebrities such as Lauren Hutton and Patti LaBelle are spokeswomen for the campaign. The cost of Premarin with its low dose of 0.3 mg is 26% higher than before (*Orange County Register*, April 13, 2005, p. 4). The Wyeth Web page (<http://www.premarin.com>, May 14, 2005) has warnings about possible links to health risks, but it also cites clinical trials that downplay such risks.

Animal rights organizations continue to protest the PMU farms and to support alternatives to Premarin. "HorseAid filed a petition with the FDA Advisory Committee in 2004 asking for a clarification on why the FDA had not removed their approval of PMU based medications from the U.S. marketplace in light of the many studies showing a link between the Premarin family of medications and several severe health risks associated with their use" (HorseAid, 2005).

The Pew Charitable Trusts sponsored a review of animal rights activism for Tufts University School of Veterinary Medicine (1995), titled *The Animal Research Controversy*, whose authors concluded that PETA "has done well in obtaining [media] coverage . . . but the animal protection groups have, for the most part, not been that skilled at disseminating their message nor have they had particularly good media contacts" (p. 131).

Ultimately, as in other propaganda campaigns, it is up to the audience to become educated about the issues. Instead of blindly accepting brand-name drugs from their physicians, patients must ask questions and seek alternatives.

These case studies examined four very different topics. Each case entailed much more information than we could possibly include in one chapter. We

wanted not only to illustrate the 10-part method of analysis of propaganda but also to emphasize how propaganda operates in our time in our society, whether in war or in peace.

Notes

1. *Women, War, and Work: Shaping Space for Productivity in the Shipyards During World War II*, a film by Victoria O'Donnell, is available in 40- and 57-minute versions from KUSM-TV, Montana State University, Bozeman, MT 59717-3340.

2. Interestingly, this proposal has a precedent. In the 1930s, Congress responded to the aggressive and seductive advertising of investment securities vendors by banning pictures and images in all advertisements for stocks and bonds. The resulting advertisements contained only lists of the brokers making the offering.

3. The Drug Price Competition and Patent Term Restoration Act of 1984 requires that generics have the same active ingredients and that they act at the same rate, strength, and concentration as the brand name (Mann, 1997).