



**Breast Cancer Drugs Are More Expensive
in Southeastern Massachusetts
than in Canada, the UK, France & Italy**

by

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and

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Introduction

by Congressman Bill Delahunt

Early last year, I commissioned a study on prescription drugs in southeastern Massachusetts. This report showed a wide disparity between prices charged to ordinary local residents, as compared with favored institutional customers like HMOs.

The original goal was to educate myself, interested constituents and congressional colleagues about what's really facing residents of the South Shore and the Cape & Islands who depend on these medications. Over the two years since, we followed up with additional reports on other aspects of the problem. Today's study, our fifth in this series, seeks to build on the work of two previous reports.

Our last project, published in July, documented that drug manufacturers charge more when their products are intended for use by local women with breast cancer who lack prescription drug coverage, or any health insurance at all. And in an earlier study, we showed that seniors in our region pay much more for five common medications than do their counterparts in Mexico and Canada.¹

The response to our breast cancer report was so strong that we wanted to pursue that theme further in our newest study. As a result, this survey compares the cost of breast cancer drugs in southeastern Massachusetts to the corresponding prices in Canada, England, France and Italy.

Some sections of this study -- for instance, the local pricing data -- may look familiar because its methodology derives from our original breast cancer research.² The overall results are also consistent with -- and as alarming as -- the conclusions of our preceding studies.

This study found that the average price charged an uninsured local woman with breast cancer is *two-and-a-half times more* than in the four other countries -- and *three times more expensive* than in Canada and France.

In fairness, the calculation was somewhat skewed by the fact that the foreign differential for one particular drug, Tamoxifen, was exceptionally high (552 percent). And there was one instance, involving the medication Megace in Canada, in which a foreign price exceeded the local cost.

¹ See Appendix E, summarizing four earlier drug pricing studies released by Rep. Delahunt. For full text of studies, see Congressional website at <http://www.house.gov/delahunt/>.

² Special thanks to the 13 pharmacies across southeastern Massachusetts who assisted in collecting this data. See Appendix C for location of participating pharmacies.

But overall, the patterns are clear -- and Tamoxifen is an especially disturbing example. Sold under the brand name Nolvadex, this is the mostly widely used breast cancer medication in the United States. This study documents that a one-month supply of Nolvadex costs a local woman \$111.³ The same medication costs \$10 in France -- a differential of *over 1000 percent*.

In short, the study shows that breast cancer drugs are cheaper in each of the other countries -- and that the most widely-used medications have the largest price disparity. As a result, for local women with breast cancer who can least afford exorbitant prescription drug costs, such as women on Medicare and uninsured women, are forced to pay the highest prices for the medications they need to survive.

The discrepancies add up fast. Patients who need these medications often must depend on them for years, so the cost differentials multiply substantially over time.

Further, these price disparities hit hardest in regions like ours, where the incidence of breast cancer in the state is the highest in the country -- and on the Cape this rate is even more elevated.⁴ The latest figures show that this year alone 1,000 women in Massachusetts will die from breast cancer -- and 44,000 more will be diagnosed with the disease.⁵

Over the period we've been researching these issues, the politics of prescription drugs have changed considerably. Two years ago, there were precious few members of Congress motivated to join this battle. Now, the chorus is nearly unanimous. Given how slowly the legislative wheels usually grind, that is grounds for hope.

Many in that choir, however, are lip-synching the lyrics. As recently as October, the Congress passed a provision that its sponsors touted as a major milestone -- ostensibly permitting US pharmacists and wholesalers to re-import American-made prescription drugs from foreign countries, where prices are so much lower.

Sadly, these claims were overstated. In reality, the measure is riddled with loopholes.

³ The generic version of Tamoxifen sells for only \$10 less per month in southeastern Massachusetts.

⁴ Silent Spring Institute, *Breast Cancer Incidence in Massachusetts Towns, 1987-1994*, using data from the MA Cancer Registry, MA Department of Public Health. See Appendix D.

⁵ American Cancer Society, *Cancer Facts & Figures 2000* (2000) This ranking excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder. (online at <http://www3.cancer.org/cancerinfo/sitecenter.asp?ctid=8&scp=8.2.2.40008&scs=3&scss=10&scdoc=40038&language=english>).

Among other things, it limits the number of countries from which drugs may be imported -- for instance, it excludes Mexico. It allows the pharmaceutical industry to rewrite contracts with foreign distributors to charge US importers more than other customers. It gives pharmaceutical manufacturers power over drug labels required by the FDA, and thus over the entire re-importation process. It also sunsets the re-importation provision after five years, discouraging even good-faith industry efforts to invest the time and effort to encourage a re-importation system.

And that's if you can ignore the inherent absurdity of "consumer protections" that sell medicine to other nations, only to buy it back again -- all to circumvent high prices at home.

The ramifications of this price discrimination reach far into the workplace, where prescription drug prices are one of the fastest-growing financial burdens on employers who provide health coverage. From 1998 to 1999, drug costs exceeded 40 percent of premium increases for those employers⁶, and they now face a third consecutive year of double-digit hikes.⁷ While some companies may absorb much of the rising cost, many will pass them on to employees.

Pharmaceutical manufacturers argue that their research-and-development costs require these price spikes. There is no question that R&D is expensive, and that it serves an essential public imperative. And drug manufacturers, like any other business, have a right to make money. But it is also telling that, over a one-year period, the industry registered record profits⁸ and spent over \$8 billion on commercial advertising alone.⁹

As this study shows, other nations with thriving pharmaceutical industries have managed to balance the drug companies' legitimate business needs with fundamental concern for public health. So can we.

⁶ The Henry J. Kaiser Family Foundation, *Prescription Drug Trends*, (online at <http://www.kff.org/content/2000/3057/PrescriptionDrugsFactSheetPDF.pdf>)

⁷ Hewitt Associates, *Rising Prescription Drug Costs and HMO Pressures are Driving Major Cost Hikes*, (online at <http://www.hewitt.com/hewitt/resource/newsroom/pressrel/2000/10-23-00.htm>).

⁸ Public Citizen, *Massachusetts Consumers Pay More for Prescription Drugs While Pharmaceutical Profits Soar*. See Appendix B for chart. Full report online at <http://www.citizen.org/congress/drugs/statereports/massachusetts.html>.

⁹ *Prescription Drug Trends*, *supra* note 5.

SUMMARY

As demonstrated in a previous study commissioned by US Rep. Bill Delahunt¹⁰, many women in Massachusetts who have breast cancer must pay high prices for lifesaving prescription drugs. This report, which was also prepared at Congressman Delahunt's request, investigates how these prices compare with the prices paid for the same drugs by women in other countries.

Breast cancer is the most common form of cancer among women in the United States. This year, approximately 180,000 women will be diagnosed with breast cancer, and over 40,000 will die. Many of these women lack coverage for prescription drugs and face severe financial problems affording the medications that they need to survive. The high cost of breast cancer drugs has a special impact on women in southeastern Massachusetts. Women in Massachusetts suffer from breast cancer at the highest rate in the country, and Cape Cod women suffer from the disease at an even higher rate than the statewide average.

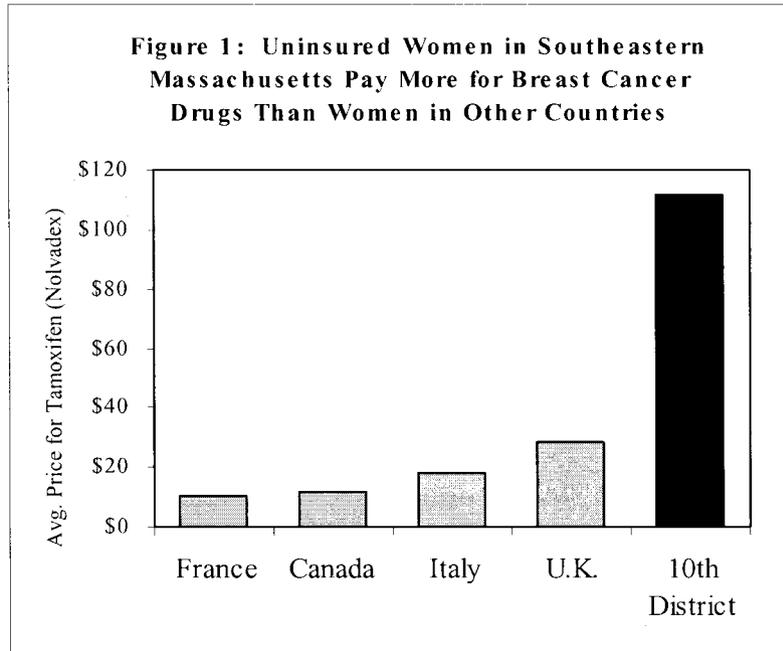
This report analyzes the pricing of five brand-name prescription drugs that are commonly prescribed to treat breast cancer. It compares prices for these breast cancer drugs in southeastern Massachusetts with prices for these same drugs in Canada, the United Kingdom, France, and Italy.

The report finds:

- **Breast cancer drugs are more expensive in southeastern Massachusetts than in other countries.** For an uninsured woman with breast cancer in southeastern Massachusetts, the average price for the five commonly used breast cancer drugs is 142% higher than the average price in Canada, the United Kingdom (UK), France, and Italy. This means that these breast cancer drugs cost women in southeastern Massachusetts more than twice as much as they do women in other countries.
- **Breast cancer drugs are, on average, over three times more expensive in southeastern Massachusetts than in Canada and France.** Among the four foreign countries surveyed, Canada and France have the lowest prices for the five breast cancer drugs. For an uninsured woman with breast cancer in southeastern Massachusetts, the average price for the five breast cancer drugs is 3.4 times higher than the price in Canada and 3.7 times higher than the price in France.
- **The most widely used breast cancer drug has the highest price differential.** Tamoxifen, sold under the brand-name Nolvadex, is the most widely used breast cancer drug in the United States. It has the highest price differential of any of the five breast cancer drugs. Nolvadex costs over six times as much in southeastern Massachusetts as it does in other

¹⁰ Rep. Bill Delahunt, Pricing of Breast Cancer Drugs in Southeastern Massachusetts (online at <http://www.house.gov/delahunt/>).

countries. A monthly supply of Nolvadex costs uninsured women in southeastern Massachusetts \$111.56. In Canada, the same amount of the drug costs only \$12.00 -- a price differential of over 800%. In France, a monthly supply of Nolvadex costs only \$10.20, a price differential of nearly 1000% (Figure 1).



- **The price differences are substantial in dollar terms.** A patient who is diagnosed with breast cancer will typically take prescription drugs each day for up to five years in order to prevent the growth and spread of cancer. For a full five-year course of treatment with Tamoxifen, sold under the brand-name Nolvadex, an uninsured breast cancer patient in southeastern Massachusetts must spend almost \$6,700. This is almost \$6,000 more than a woman in Canada would spend on the same drug. For Arimidex, another breast cancer treatment, uninsured women in southeastern Massachusetts must pay an average of over \$1,000 more each year than women in Canada.

I. BREAST CANCER TREATMENT AND INCIDENCE

Breast cancer is the most common form of cancer for women in the United States. In 2000, approximately 183,000 women in the United States will be diagnosed with breast cancer, and over 41,000 will die.¹¹ Over the course of a lifetime, one in eight women in the United States will be diagnosed with breast cancer.¹²

Women on Cape Cod are at particular risk for breast cancer. Statewide, Massachusetts has the highest incidence of breast cancer in the United States.¹³ The incidence of breast cancer exceeds this statewide average by 20% for women on Cape Cod.¹⁴ This year alone in Massachusetts approximately 1,000 women will die from breast cancer -- and 4,400 local woman will learn they have the disease.¹⁵

Initial therapy for breast cancer usually requires surgical removal of the tumor.¹⁶ Additional prescription drug therapy (known as adjuvant therapy) is often recommended to prevent the growth and spread of cancer cells throughout the body. There are two types of drug therapy for breast cancer: chemotherapy and hormonal therapy. Chemotherapy drugs kill cancer cells directly. Hormonal drugs function by curtailing the production of or blocking the effects of estrogen, a natural hormone that can accelerate the growth of breast tumors.

The breast cancer drugs used in adjuvant therapy are expensive, especially the drugs used in hormonal therapies. Breast cancer patients spend over \$1 billion annually on prescription drugs used to treat the disease.¹⁷ The costs are particularly high when patients are prescribed drugs in combination and directed to take the drugs over extended periods of time. Typical hormonal

¹¹*Cancer Facts & Figures 2000, supra* note 5.

¹²Katrina Armstrong, M.D., Andrea Eisen, M.D., and Barbara Weber, M.D., *Assessing the Risk of Breast Cancer*, *New England Journal of Medicine* (Feb. 24, 2000).

¹³American Cancer Society, *Female Breast Cancer Incidence (1991-1995) and Death (1992-1996) Rates, by State* (1999) (online at <http://www3.cancer.org/cancerinfo/sitecenter.asp?scp=8.3.2.40010&scs=4&scss=1&scdoc=40028&ctid=8>).

¹⁴Silent Spring Institute, *Cape Cod Breast Cancer and Environment Study* (1997) (online at <http://www.silentspring.org/Projects/Capestudy/findings.html>).

¹⁵*Cancer Facts & Figures 2000, supra* note 5.

¹⁶National Cancer Institute, *Cancer Facts: Therapy: Questions and Answers About Adjuvant Therapy for Breast Cancer* (1999) (online at <http://cancernet.nci.nhi.gov>).

¹⁷Committee on Government Reform, Minority Staff, *Analysis of Sales of Prescription Drugs Used in Hormonal Treatment of Breast Cancer* (Oct. 1999).

therapies are taken daily for up to five years.¹⁸

Many women with breast cancer do not have prescription drug coverage to pay their drug expenses. Overall, almost 60% of breast cancer patients are age 65 or over.¹⁹ These women usually receive health insurance through Medicare, which does not pay for most prescription drugs. While some women on Medicare have supplemental drug coverage, their coverage is often inadequate.²⁰ Over 30% of women in the Medicare program -- approximately six million women -- have no prescription drug coverage of any kind.²¹

Women younger than 65 also often lack prescription drug coverage. Nationwide, 15% of women younger than 65 -- approximately five million women -- have no health insurance coverage at all.²² Some analysts have estimated that there are over 20,000 women younger than 65 in the United States who have breast cancer and are in need of financial assistance to pay for treatment.²³

There has been legislative news on the breast cancer front since our last study. The Congress recently passed and President Clinton signed into law the Breast and Cervical Cancer Prevention and Treatment Act, which will finally ensure treatment for low-income, uninsured women. Specifically, it authorizes states to provide Medicaid coverage to women between the ages of 40 and 65 with income up to 250 percent of the poverty level. Over the last 10 years, the Centers for Disease Control Early Detection program screened a million women, helping identify more than 5,800 cases

¹⁸National Comprehensive Cancer Network and American Cancer Society, *Breast Cancer Treatment Guidelines for Patients* (1999) (online at www.nccn.org).

¹⁹National Cancer Institute, *Estimated U.S. Cancer Prevalence Counts* (1999).

²⁰Although Medicare beneficiaries can purchase supplemental "Medigap" insurance privately, these policies are often prohibitively expensive or inadequate. For example, one Medigap policy requires beneficiaries to meet a \$250 deductible and then covers only 50% of the cost of prescription drugs, up to a maximum benefit of \$1,250. Health Affairs, *Prescription Drug Coverage, Utilization, and Spending Among Medicare Beneficiaries* (Jan./Feb. 1999). The best supplemental prescription drug coverage is available to those who have private sector, employer-based coverage. But only 24% of Medicare beneficiaries have this type of prescription drug coverage. National Economic Council, Domestic Policy Council, *Disturbing Truths and Dangerous Trends: The Facts About Medicare Beneficiaries and Prescription Drug Coverage* (July 22, 1999).

²¹HCFA, Unpublished Medicare Current Beneficiary Survey Data Provided Upon Request to Rep. Henry A. Waxman (Oct. 1999).

²²U.S. Census Bureau, *Health Insurance Coverage 1998* (Oct. 1999).

²³Testimony of Susan Braun, President and CEO, Susan G. Komen Breast Cancer Foundation, before the House Subcommittee on Health and the Environment (July 21, 1999).

of breast cancer, 500 cervical cancers and 31,000 precancerous cervical lesions. However, no federal assistance has been available to follow up on these diagnoses with treatment -- until now. However, this bill has many limitations - it gives states the option of extending coverage but does not require states to provide treatment; it does not cover women over the age of 65; and currently only 15 percent of women who are eligible under the CDC's detection program are screened.

For women with breast cancer who must pay for their own prescription drugs, the costs can be staggering. Because of the high costs of diagnosis and treatment, many women with breast cancer are forced to delay diagnosis and treatment or forego appropriate care.²⁴

II. OBJECTIVE OF THE REPORT

In the United States, drug manufacturers are allowed to discriminate in drug pricing. As the Congressional Budget Office reported, “[d]ifferent buyers pay different prices for brand-name prescription drugs. ... In today’s market for outpatient prescription drugs, purchasers that have no insurance coverage for drugs ... pay the highest prices for brand-name drugs.”²⁵ The Federal Trade Commission has reached the same conclusion, reporting that drug manufacturers use a “two tiered pricing structure” under which they “charge higher prices to ... the uninsured.”²⁶

In Canada, the UK, France and Italy, however, consumers are protected from manufacturer price discrimination. In Canada, the country’s Patented Medicine Prices Review Board requires that the prices of new, brand-name drugs not exceed the average price of the drug in seven other industrialized countries.²⁷ In Italy, the government uses a similar approach, refusing to reimburse manufacturers for a drug if its price exceeds a twelve country European average price.²⁸ In France, the Drugs Economic Committee establishes a maximum price for each drug based on its therapeutic

²⁴Testimony of Dr. Stanley Klausner, Director of Breast Services, Brookhaven Memorial Hospital, and Fran Visco, President, National Breast Cancer Coalition, before the House Subcommittee on Health and the Environment (July 21, 1999).

²⁵Congressional Budget Office, *How Increased Competition from Generic Drugs Has Affected Prices and Returns in the Pharmaceutical Industry*, xi (July 1998).

²⁶Federal Trade Commission, *The Pharmaceutical Industry: A Discussion of Competitive and Antitrust Issues in an Environment of Change*, 75 (Mar. 1999).

²⁷See Patented Medicine Prices Review Board, *Eleventh Annual Report for the Year Ending December 31, 1998* (1999).

²⁸See Health Policy, *The New Pharmaceutical Policy in Italy*, 46, 21-41 (1998).

value and the price of the drug in other countries.²⁹ In the UK, drug companies are free to establish their own prices on individual drugs. However, under the country's pharmaceutical laws, the maximum profit that drug manufacturers can earn on sales in the UK is limited to 17%.³⁰

Because of these differences among the United States and other countries, Rep. Delahunt commissioned an international comparison of the prices of breast cancer drugs. He requested a comparison of prices paid for prescription drugs by breast cancer patients in his district with the prices paid by women in Canada, the UK, France, and Italy for the same drugs. In particular, he requested an examination of whether the drug manufacturers have adopted pricing strategies that force breast cancer patients in his congressional district to pay higher prices for breast cancer drugs than women in the other countries.

III. METHODOLOGY

A. Selection of Drugs

This report focuses on five leading brand-name drugs that are approved by the Food and Drug Administration (FDA) for breast cancer treatment.³¹ All five drugs are used as out-patient hormonal therapies.³² These drugs are:

- Tamoxifen, a hormone therapy manufactured by AstraZeneca and sold under the brand-

²⁹See Congressional Research Service, *Determination of Prescription Drug Prices in France, the United Kingdom, and Italy* (Sept. 11, 2000).

³⁰*Id.*

³¹The report focuses on brand-name drugs because manufacturers of brand-name drugs have greater control over drug pricing than manufacturers of generic drugs. Consumers who purchase generic drugs usually pay less than those who purchase brand-name drugs, but the Congressional Budget Office has found that the availability of a generic drug often does not decrease the cost of the brand-name product. See *How Increased Competition from Generic Drugs Has Affected Prices and Returns in the Pharmaceutical Industry*, *supra* note 14. Among the drugs included in this study, one drug (Megace) is available in a generic version, and a second drug (Nolvadex) is available as a licensed generic through a patent claim settlement that gave one generic manufacturer the exclusive rights to distribute the generic version.

³²This study does not include oral chemotherapy drugs that are used to treat breast cancer. These drugs are generally taken for a short period of time (six months or less). Moreover, because they are chemotherapy drugs, they fall into the narrow class of drugs that are covered by Medicare. Other breast cancer drugs, such as Taxol, are not included in this analysis because they are generally dispensed in a hospital setting, not via out-patient prescription.

name Nolvadex. Tamoxifen is the most frequently prescribed breast cancer medicine in the United States and is used to treat early and advanced breast cancer in pre- and post-menopausal women. The drug is also the only drug approved by FDA as a treatment to reduce the risk of breast cancer in women at high risk of developing the disease. Total sales of Nolvadex in 1999 were \$573 million.³³

- Arimidex, a hormone therapy manufactured by AstraZeneca. Arimidex was recently approved as a first-line treatment option for breast cancer in post-menopausal women and is also used as a second-line therapy when treatment with Tamoxifen has failed. Total sales of Arimidex are approximately \$120 million annually.³⁴
- Femara, a hormone therapy manufactured by Novartis. Femara is a second-line therapy usually used to treat advanced breast cancer when treatment with Tamoxifen has failed. Total sales of Femara are approximately \$150 million annually.³⁵
- Megace, a hormone therapy manufactured by Bristol-Myers Squibb. Megace is generally a third-line therapy used in the treatment of advanced breast cancer when treatment with Tamoxifen and Arimidex has failed. Total sales of Megace are approximately \$114 million annually.³⁶
- Fareston, sold in the United States by Schering-Plough. Fareston is a first- or second-line treatment for advanced breast cancer. Total sales of Fareston are approximately \$13 million annually.³⁷

B. Determination of Prices in Southeastern Massachusetts

In order to determine the prices that women without drug coverage are paying for these breast cancer drugs in southeastern Massachusetts, Rep. Delahunt's congressional office conducted a survey of 13 drug stores -- including both independent and chain stores -- in his district. Congressman Delahunt represents the 10th Congressional District in southeastern Massachusetts, including the South Shore, Cape Cod, and the islands of Nantucket and Martha's Vineyard.

³³Zeneca, *Annual Report and Form 20-F 1999* (2000) (available online at <http://www.astrazeneca.com/Investors/annualrep1999/contents/c19.htm>).

³⁴Zeneca, *Annual Report and Form 20-F 1998* (1999).

³⁵Forbes, *A New Career for Dr. Vasella* (Feb. 9, 1998).

³⁶Bristol-Myers Squibb, *Annual Sales History for Bristol-Myers Squibb Major Products* (2000) (available online at www.shareholder.com/bmy/financials.cfm).

³⁷Orion Group, *Orion Group Annual Report 1999* (2000) (available online at <http://www.orion.fi/ewww/index.html>).

Average drug prices in southeastern Massachusetts were estimated by averaging the prices charged by these drug stores.

C. Determination of Prices in Canada, the UK, France and Italy

Prices for prescription drugs in Canada, the UK, France and Italy were determined via a survey of pharmacies in these countries. Surveys were conducted by the Office of NAFTA and Inter-American Affairs of the US Department of Commerce in August 2000. All prices were obtained in local currency and converted to US dollars using commercially available exchange rates.

D. Selection of Drug Dosage

Prices were obtained for a monthly supply of each of the drugs. Fareston, Arimidex, and Femara are generally taken once daily, and 30 tablets represent a monthly dose of these drugs. Nolvadex is generally taken twice daily, and 60 tablets represent a monthly dose. Eight Megace tablets are taken daily, and 240 tablets represent a monthly dose of this drug. The dosages, forms, and package sizes used in the study are shown in Table 1.

In Canada, Fareston was not available, but the other four prescription drugs surveyed in this report were available in the same dosage as in the United States. In France, Italy, and the UK, all five drugs were available, but Megace was not sold in the 20 mg. dosage available in the United States. In France and Italy, Megace was only sold in 160 mg. tablets. Because this dosage size was eight times larger than the U.S. size, it was not included in the price comparison.³⁸ In the UK, Megace was available in a 40 mg. dosage and was included in the comparison. For this comparison, prices of equivalent quantities were used for the comparison. The price of two 20 mg. tablets in the United States was compared to the price of one 40 mg. tablet in the UK.

IV. FINDINGS

A. Prices Are Higher in Southeastern Massachusetts Than in Foreign Countries

The prices paid by uninsured women in southeastern Massachusetts for the five breast cancer drugs are significantly higher than the prices paid by women in other countries. For an uninsured woman with breast cancer, the average price of these drugs in southeastern Massachusetts is 142% higher than the average price in the four foreign countries. This means that, on average, the drugs cost almost two and a half times as much in southeastern Massachusetts than they do in the other countries (Table 1).

³⁸If the price of Megace in 160 mg. tablets had been included in the analysis, it would have increased the observed price differential between drug prices in southeastern Massachusetts and drug prices in the four foreign countries.

Table 1: Uninsured women in southeastern Massachusetts pay higher prices for breast cancer drugs than women in other countries.

Drug	Manufacturer	Quantity	Avg. Foreign Price	10th District Price	Price Differential	
					Dollar	Percent
Tamoxifen (Nolvadex)	AstraZeneca	10 mg, 60 tab.	\$17.10	\$111.56	\$94.46	552%
Fareston	Schering-Plough	60 mg, 30 tab.	\$55.50	\$92.16	\$36.66	66%
Arimidex	AstraZeneca	1 mg, 30 tab.	\$149.78	\$202.55	\$52.78	35%
Megace	Bristol Myers Squibb	20 mg , 240 tab	\$145.80	\$189.31	\$43.51	30%
Femara	Novartis	2.5 mg, 30 tab.	\$152.40	\$195.88	\$43.48	29%
Average						142%

B. Breast Cancer Drugs Are Over Three Times More Expensive in Southeastern Massachusetts Than in Canada and France

In each of the four other countries, prices for the five breast cancer drugs are lower than in southeastern Massachusetts. Canada and France have the lowest prices of the four foreign countries. The average price differential between the prices in Canada and the prices in southeastern Massachusetts is 239%. This means that women in southeastern Massachusetts must pay 3.4 times more for breast cancer drugs than women in Canada. The average price differential between the prices in France and the prices in southeastern Massachusetts is 272%. This means that women in southeastern Massachusetts must pay 3.7 times more for breast cancer drugs than women in Canada.

The differentials between the prices in southeastern Massachusetts and the prices in the UK and Italy are also large. The prices for the five breast cancer drugs are on average 181% higher in southeastern Massachusetts than in Italy and 122% higher than in the UK. Prices for a monthly supply of the individual drugs in the four foreign countries can be seen in Appendix A.

C. The Most Widely Used Breast Cancer Drug Has the Highest Price Differential

Tamoxifen, sold under the brand-name Nolvadex, is the most widely used breast cancer drug in the United States, with over 100,000 prescriptions filled in 1999. Nolvadex has the highest price differential of any of the five drugs in this survey, costing over six times as much in southeastern Massachusetts as it does in other countries. The average differential between the price of Nolvadex in southeastern Massachusetts and the price of this drug in Canada, the UK, France and Italy is

552%.³⁹

A monthly supply of Nolvadex costs uninsured women in southeastern Massachusetts \$111.56. In Canada, a woman can buy the same amount of the drug for only \$12.00. This is a price differential of 830%. In France, this same amount of the drug costs \$10.20, a price differential of 994%.

Although Nolvadex has the highest price differential, the price differentials for the remaining four drugs are also significant. For the other four drugs, the average differential between the price in southeastern Massachusetts and the price in the four foreign countries is 40%. After Nolvadex, the drug with the second highest price differential in percentage terms is Fareston, with a price difference of 66%. A monthly supply of Fareston costs uninsured women in southeastern Massachusetts \$92.16. In Italy, a monthly supply of this drug costs \$33.00, a price difference of 179%. In the UK, a monthly supply of this drug costs \$59.10, a price differential of 56%.

D. Price Differentials Are Substantial

In dollar terms, these price disparities translate into large sums. A woman who is diagnosed with breast cancer and undergoes therapy involving prescription drugs will typically take hormonal therapies daily for up to five years. Over the course of treatment, a woman in southeastern Massachusetts with breast cancer who lacks prescription drug coverage could be forced to pay thousands of dollars more for these drugs than women in other countries.

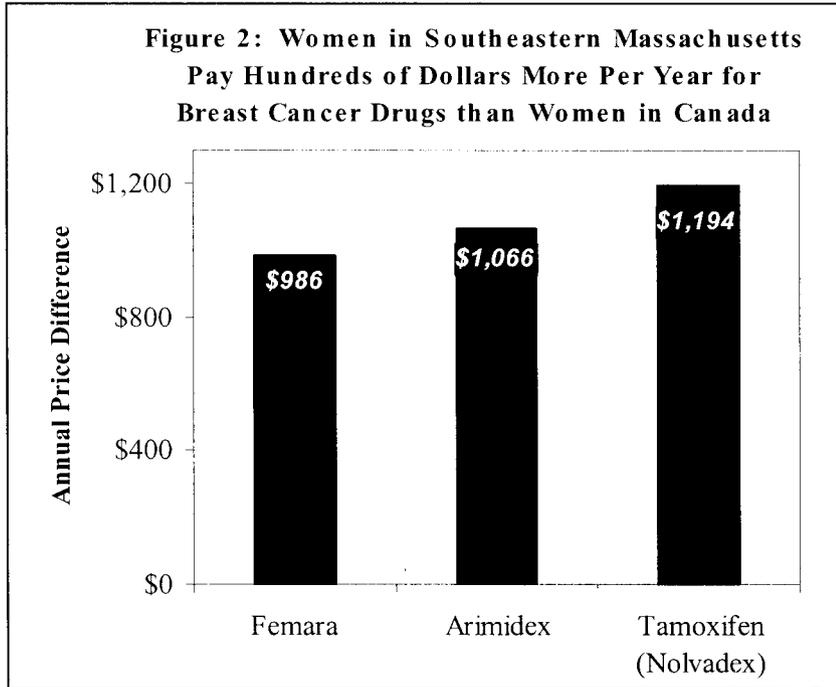
A monthly prescription for Nolvadex, the brand-name version of Tamoxifen, costs an uninsured woman in southeastern Massachusetts \$99.56 per month more than a woman in Canada. On an annual basis, this represents a price difference of nearly \$1,200. For a full five-year course of treatment, an uninsured breast cancer patient in southeastern Massachusetts would spend almost \$6,700 on Nolvadex -- nearly \$6,000 more than a woman in Canada.

Tamoxifen is a first-line hormonal therapy for breast cancer. Some women who initially begin taking Tamoxifen have a recurrence of the disease and switch to second-line therapies such as Arimidex. These women also face high prices. A woman with breast cancer in southeastern Massachusetts without prescription drug coverage pays almost \$90 more than a woman in Canada for a monthly prescription of Arimidex. For one year of treatment, a woman with breast cancer in southeastern Massachusetts would pay over \$2,400 for Arimidex, compared to only \$1,364 in

³⁹Tamoxifen is also available in the United States as a licensed generic, sold by Barr Laboratories. The average price of this licensed generic version in southeastern Massachusetts is \$101.25, only \$10.31 less than the price of the brand-name drug. If the price of the licensed generic version of Tamoxifen is used in the price comparisons instead of the price of the brand-name version, the average price differential for this drug would be 492%.

Canada. This is an annual price difference of over \$1,000.

Femara also has a high price difference in dollars. A breast cancer patient in southeastern Massachusetts who pays for her own drugs would pay nearly \$1000 more than a woman in Canada for a one year supply of Femara (Figure 2).



V. CONCLUSION

This report finds that women without prescription drug coverage in southeastern Massachusetts pay higher prices for breast cancer drugs than women in other countries. While consumers in other countries are protected from price discrimination by drug manufacturers, uninsured women in the 10th district have no such protection. As a result, drug manufacturers charge low prices for breast cancer drugs in other countries, but high prices for the same drugs in southeastern Massachusetts. The women with breast cancer in southeastern Massachusetts who can least afford high drug costs, such as women on Medicare and uninsured younger women, are being forced to pay the most for the drugs that they need to survive.

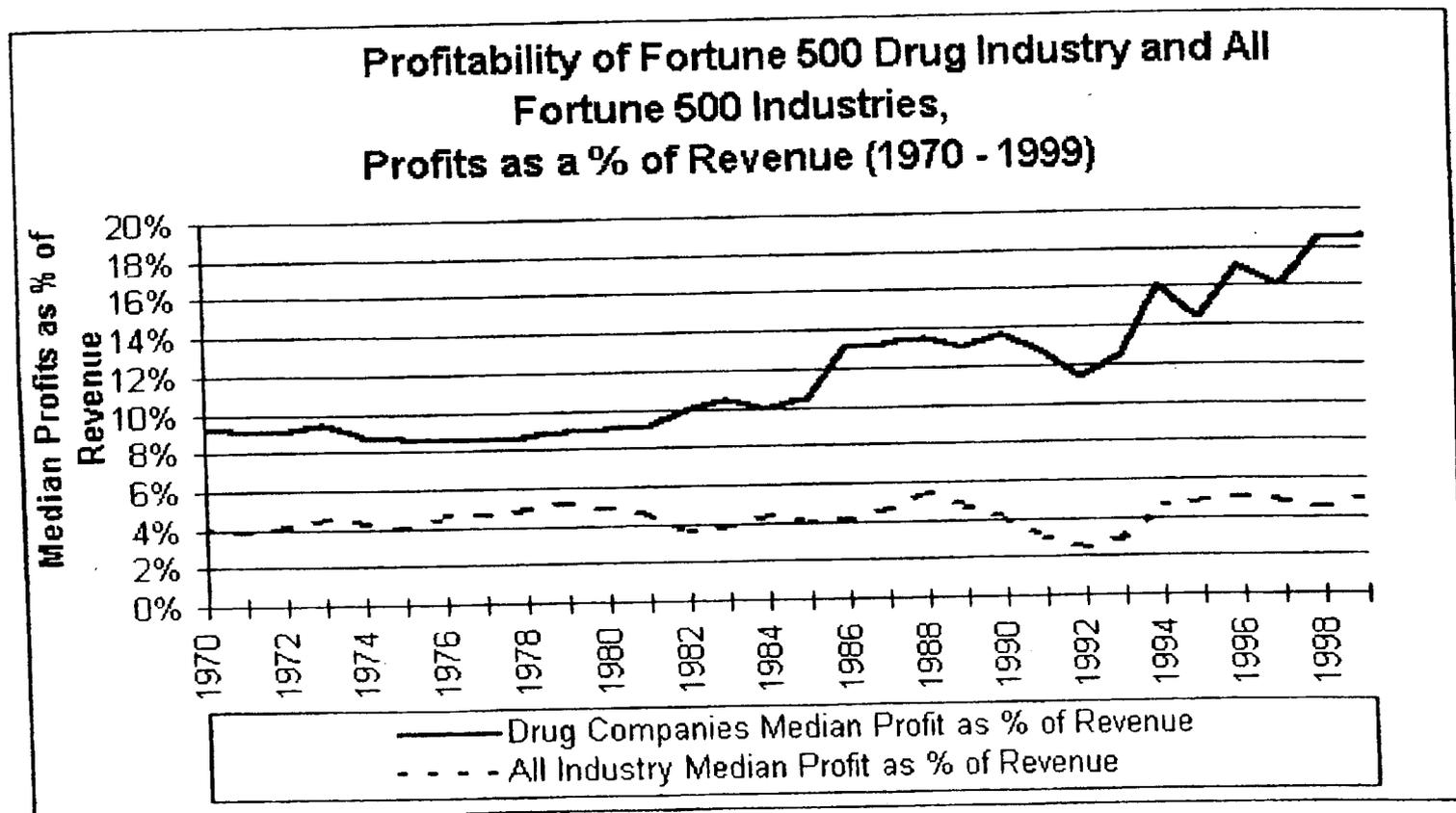
Appendix A

Prices of Individual Studied Drugs in southeastern Massachusetts, Canada, the UK, France and Italy

Drug	Quantity, Dosage	10th District Price	Canadian Price	UK Price	French Price	Italian Price	Average Foreign Price
Nolvadex	10 mg, 60 tab.	\$111.56	\$12.00	\$28.20	\$10.20	\$18.00	\$17.10
Fareston	60 mg, 30 tab.	\$92.16	Not Avail.	\$59.10	\$74.40	\$33.00	\$55.50
Arimidex	1 mg, 30 tab.	\$202.55	\$113.70	\$167.10	\$143.70	\$174.60	\$149.78
Megace	20 mg., 240 tab.	\$189.31	\$232.80	\$58.80*	Not. Avail.*	Not. Avail.*	\$145.80
Femara	2.5 mg, 30 tab.	\$195.88	\$113.70	\$167.10	\$150.60	\$178.20	\$152.40

* Because Megace is not available in the UK in the 20 mg. size, this price comparison is based upon 120 40 mg. tablets. Megace is approved for use in France and Italy, but is not sold in a comparable dosage and thus was not included in this analysis.

Appendix B



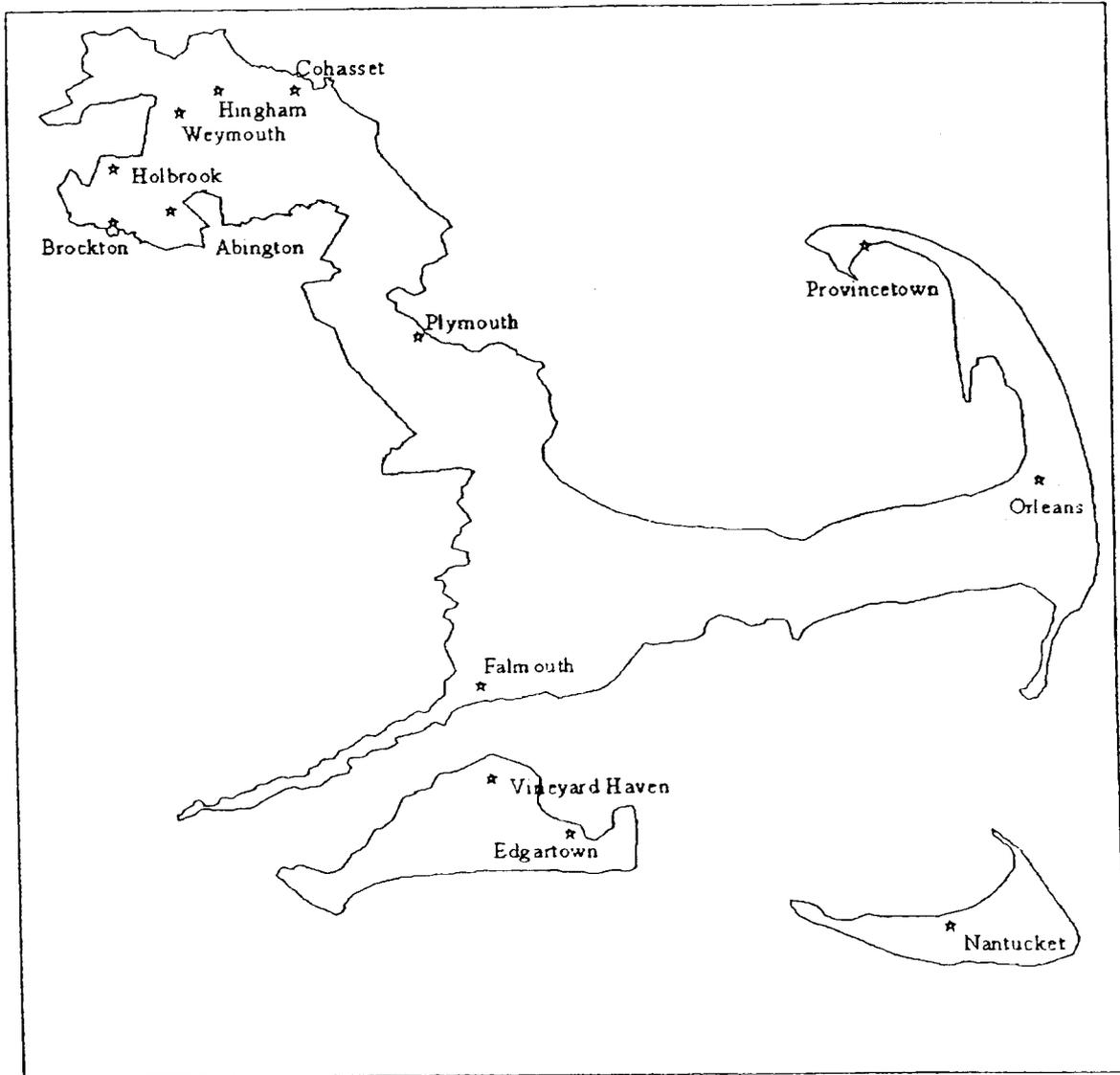
Source:

Public Citizen, Massachusetts Consumers Pay More for Prescription Drugs While Pharmaceutical Profits Soar, (October, 2000) online at

<http://www.citizen.org/congress/drugs/statereports/massachusetts.html>

Appendix C

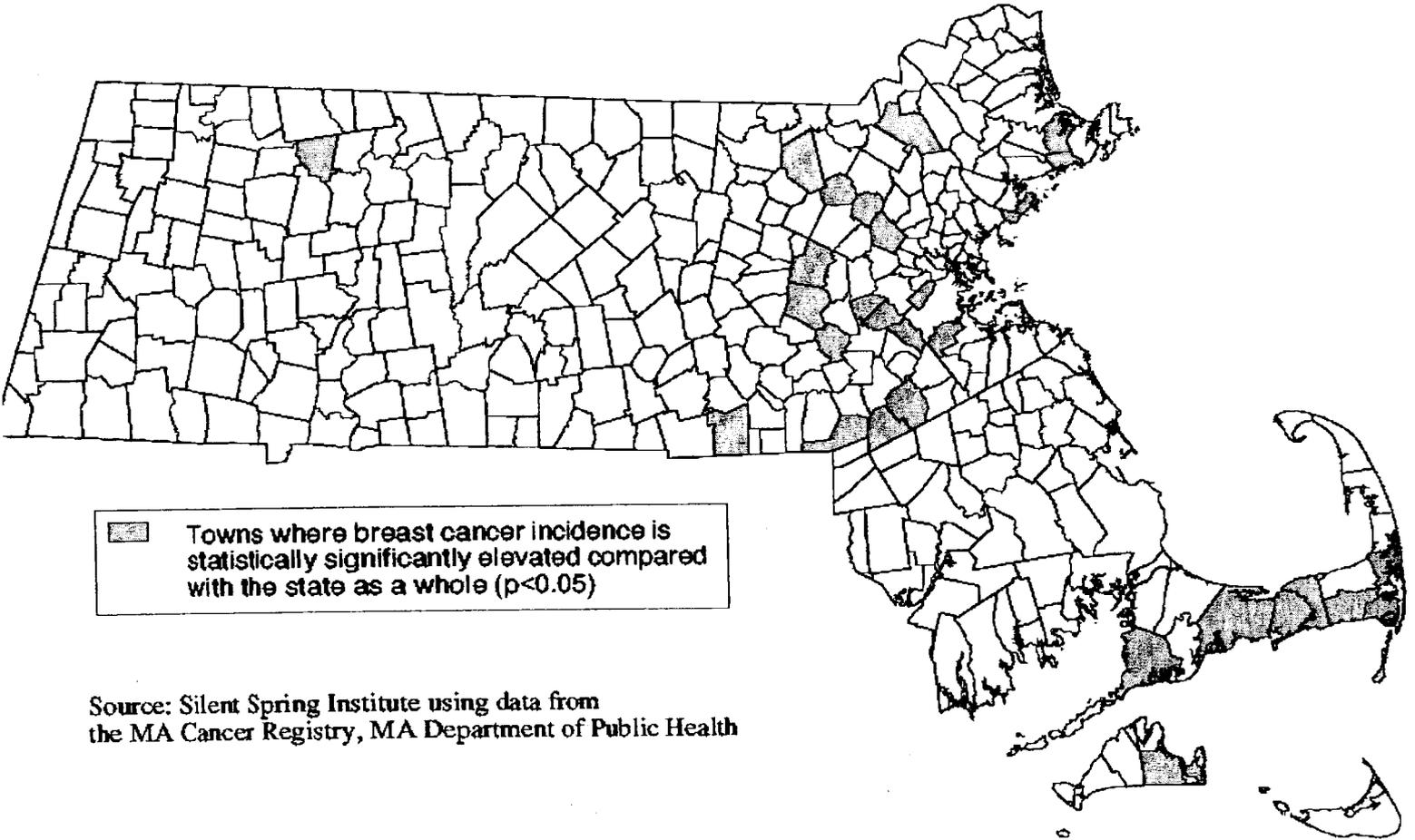
Prescription Drug Pricing Survey Locations in the 10th Congressional District in Massachusetts



Library of Congress, Geography and Map Division
May, 2000

Appendix D

Breast Cancer Incidence in Massachusetts Towns, 1987-1994



Source: Silent Spring Institute using data from the MA Cancer Registry, MA Department of Public Health

Appendix E

Findings of Previous Delahunt Studies of Drug Price Disparities (4 pages) Full text of studies on Congressional website at <http://www.house.gov/delahunt>

Drug Companies Profit at the Expense of Older Americans

May 1999

This report, prepared by Congressional investigators based on data compiled by my office, shows that older residents of the South Shore and the Cape & Islands are charged far more for common prescription drugs than are insurance companies, health maintenance organizations, the federal government and other customers favored by drug manufacturers.

The report documents these price disparities -- *averaging 134 percent* -- and presents disturbing evidence about their causes. It reveals that local seniors who pay for their own medications are charged, on average, twice as much as favored larger customers. For certain medications, the disparity was *nearly 1700 percent* -- despite the fact that the differential for other consumer items was a modest 22 percent.

In addition, the study demonstrates that pharmaceutical manufacturers, not drug stores, appear to be responsible for the discriminatory prices older local residents are forced to pay for medications.

Average Retail Prices for the Five Best-Selling Drugs for Older Americans in Massachusetts Are More Than Twice as High as the Prices That Drug Companies Charge Their Most Favored Customers.

Prescriptio Drug	Manufacturer	Use	Prices For Favored Customers	Retail Prices for Mass Seniors	Price Differential For Massachusetts Senior Citizens
Zocor	Merck	Cholesterol	\$34.80	\$115.21	231%
Norvasc	Pfizer Inc.	High Blood Pressure	\$59.71	\$128.21	115%
Procardia XL	Pfizer Inc.	Heart Problems	\$68.35	\$144.94	112%
Prilosec	Astra/Merck	Ulcers	\$59.10	\$121.15	105%
Zoloft	Pfizer, Inc.	Depression	\$115.70	\$237.00	105%
Average Price Differential					134%

Prescription Medications in Southeastern Massachusetts:

An International Price Comparison

November 1999

With the prescription drug industry booming globally, this study examines whether the price disparities exist once you cross our international borders.

Our research concludes that, on average, *seniors in our region pay nearly twice the price* charged uninsured older people in the Mexican cities of Monterrey and Guadalajara, and the Canadian provinces of Ontario, British Columbia and Nova Scotia. For Prilosec, a popular ulcer medication, for instance, an uninsured senior on the South Shore or the Cape & Islands would pay *120 percent more than a Canadian senior, and 277 percent more than a Mexican senior.*

Seniors in Rep. Delahunt's District Pay Significantly Higher Prices for Prescription Drugs Than Consumers in Canada or Mexico.

Prescription Drug	U.S. Dosage and Form	Canadian Price	Mexican Price	Mass. Price	Canada-Mass. Price Differential		Mexico-Mass. Price Differential	
					Percent	Dollar	Percent	Dollar
Zocor	5 mg, 60 tab.	\$46.17	\$67.65	\$115.21	150%	\$69.04	70%	\$47.56
Prilosec	20 mg, 30 cap.	\$55.10	\$32.10	\$121.15	120%	\$66.05	277%	\$89.05
Procardia XL	30 mg, 100 tab.	\$74.25	\$76.60	\$144.94	95%	\$70.69	89%	\$68.34
Zoloft	50 mg, 100 tab.	\$129.05	\$219.35	\$237.00	84%	\$107.95	8%	\$17.65
Norvasc	5 mg, 90 tab.	\$89.91	\$99.32	\$128.21	43%	\$38.30	29%	\$28.89
Average Differential					98%		95%	

Drug Manufacturer Prices Are Higher for Humans than for Animals

February 2000

This study examines the prices charged for medicines used by both people and animals. The first group of drugs reviewed contains popular medicines approved for use by both people and animals -- based on the cost of the active ingredient per gram. The average price differential for these drugs exceeded 100 percent.

Drug Manufacturers Charge More for Popular Drugs Used by Humans than for the Same Drugs Used by Animals.

Drug Name	Manufacturer of Human Version	Human Use	Manufacturer Price (One Month Supply)		Price Differential
			Animal Market	Human Market	
Bactroban	SmithKline Beecham	Antibiotic	\$9.98	\$31.56	216%
Augmentin	SmithKline Beecham	Antibiotic	\$18.00	\$56.40	213%
Lodine	American Home Products	Arthritis	\$37.80	\$108.90	188%
Stadol	Bristol Myers Squibb	Pain Relief	\$25.48	\$61.11	140%
Lasix	Hoechst Marion Roussel	High Blood Pressure	\$4.80	\$9.60	100%
Vasotec	Merck	High Blood Pressure	\$51.30	\$78.55	53%
Lanoxin	Glaxo Wellcome	Heart Failure	\$6.36	\$25.65 (\$4.08)	303% (-56%)
Amoxil	SmithKline Beecham	Antibiotic	\$16.20	\$15.30	-6%
Average for Eight Drugs					151% (106%)

The study also looked at a second group of "directly comparable" medications. These are prescription drugs approved and dispensed in identical dosage and form for both humans and animals, and manufactured by the same or related company. The average price differential was over 130 percent.

Drug Manufacturers Charge More for Directly Comparable Drugs When the Drugs Are Used by Humans than When the Drugs Are Used by Animals.

Drug Name	Manufacturer	Human Use	Manufacturer Price (Monthly Supply)		Price Differential
			Animal Market	Human Market	
Medrol	Pharmacia and Upjohn	Arthritis; Allergies; Asthma	\$3.90	\$20.10	415%
Winstrol	Sanofi	Anemia; Renal Disease	\$5.40	\$19.20	256%
Lodine	American Home Products	Arthritis	\$37.80	\$108.90	188%
Robaxin	A.H. Robins	Pain Relief	\$15.00	\$31.20	108%
Vasotec	Merck/Merial	High Blood Pressure	\$51.30	\$78.55	53%
Cleocin	Pharmacia and Upjohn	Antibiotic	\$17.10	\$22.20	30%
Robinul	A.H. Robins	Ulcers	\$29.40	\$29.98	2%
Fulvicin U/F	Schering	Antifungal	\$38.40	\$36.60	-5%
Average for Eight Drugs					131%

Pricing of Breast Cancer Drugs in Southeastern Massachusetts

July 2000

This report investigates the pricing of five prescription drugs that are commonly prescribed to treat breast cancer. It compares the prices that women in southeastern Massachusetts without prescription drug coverage must pay for these drugs with the prices that drug manufacturers charge favored customers, such as HMOs and the federal government.

The report finds that women on the South Shore, and Cape and Islands with breast cancer who pay for their own drugs must pay an average of 121% to 125% more for the breast cancer drugs than the drug manufacturers' favored customers. The drug with the highest price differential is Megace, manufactured by Bristol Myers-Squibb. Women in Rep. Delahunt's district must pay 378% more than favored customers for a one-month supply of Megace. Women who buy Tamoxifen, the most frequently prescribed breast cancer medication, must pay 75% to 92% more than favored customers.

Table 1: Women in Southeastern Massachusetts Are Forced to Pay Higher Prices for Breast Cancer Drugs than Favored Customers

Drug	Manufacturer	Price for Favored Customers	Price for 10th District Breast Cancer Patients	Price Differential for 10th District Breast Cancer Patients	
		(One Month Supply)		Percent	Dollar
Megace (20 mg)	Bristol-Myers Squibb	\$39.60	\$189.31	378%	\$149.71
Tamoxifen (10 mg)	AstraZeneca/Barr	\$58.00	\$111.56/\$101.25	92%/75%	\$53.56/\$43.25
Arimidex (1 mg)	AstraZeneca	\$117.47	\$202.55	72%	\$85.08
Fareston (60 mg)	Schering-Plough	\$59.12	\$92.16	56 %	\$33.04
Femara (2.5 mg)	Novartis	\$155.15	\$195.88	26%	\$40.73
Average Price Differential				121%/125%	