If you’re over 40 you probably remember a neighborhood druggist who owned the business, knew your name, and delivered medicine to your door. Though the store sold shampoo and sundries—perhaps even chocolate sodas—medicine was paramount. To younger people that kind of pharmacist may seem as antiquated as the word “apothecary.” Today’s corner pharmacies are supermarkets, discounters, and “seen ‘em all” megachains, overflowing with everything from cookies to beach chairs. Oddly enough, kids growing up in the next century may view the big chains nostalgically, as faceless “dot com” drugstores become a force in the $103 billion prescription drug market.

But what’s happening in the world of drugs goes far beyond an update of the Norman Rockwell image. Changes in the nature of stores, the advent of Internet shopping, and new rules in managed care are affecting the way you buy, the price you pay, and the advice and care you receive.

For this special report, about 15,000 readers responded to questions we asked about service, advice, and problems they encountered when buying prescription drugs at the nation’s biggest chains and at independent drugstores. We also conducted a price study of several widely prescribed drugs, explored the new—and disturbingly unregulated—world of cyberdrugstores, and asked undercover shoppers in several states to buy two potentially incompatible remedies and record the pharmacist’s reaction. Meanwhile, we asked our medical reporter to assess how changes in the world of managed care affect a person’s health and pocketbook. The highlights:

- As a group, pharmacists who worked at independent stores proved much more helpful and accessible than most chain-store druggists and filled prescriptions much more quickly.
- The top-rated national store was Medicine Shoppe. Among the lower-rated stores were Sav-on Drugs, Rite Aid, and Eckerd.
- When our shoppers asked about taking Coumadin, a blood-thinning prescription drug, along with ginkgo biloba, an herbal remedy that can also thin the blood, most of the druggists said the combination would be OK. Actually, it might have caused a stroke.
- In our small study, prices for the same drug differed by more than 40 percent. Legitimate online pharmacies like drugstore.com and PlanetRx generally offered the best deals.
The ABCs of drugstores

WHERE TO SHOP IN A CHANGING MARKETPLACE.

If you’ve ever had to wait for medicine for hours (or even days) or paid more than you might have elsewhere, you’re not alone. Our readers have experienced the same problems. What’s more, some of our shoppers received incomplete—or flat-out wrong—advice from pharmacists, long among America’s most trusted professionals. The reasons for delays, high prices, and a dimming of the pharmacist’s halo have a lot to do with the economics of the drug industry.

Unlike other health-care professionals, druggists don’t charge a separate fee for their services; they build the cost of their time into the price they charge for medication. It used to be a profitable business, with typical markups of 50 percent, according to Drug Store News. And that profit came out of your pocket. As recently as 1990 insurance paid only one-fourth to one-third of total drug expenses.

Once managed care became dominant, in the mid-1980s, everything changed. By 1997, 64 percent of Americans belonged to a managed-care plan, and almost all of those plans cover prescription drugs. Overall, managed care pays for three-fourths of all prescriptions.

With millions of members and the ability to hand-pick the medicine to which they’re entitled, these publicly traded, profit-oriented insurance companies press pharmacies to accept less money for prescription drugs. As a result, a drugstore’s gross profit can be less than half what it was a decade or so ago. Insurance companies also press drug manufacturers to accept less money.

Meanwhile, demand for prescription drugs is rising fast. Last year pharmacists filled nearly 2.8 billion prescriptions, a figure expected to increase to about 4 billion by 2005. The reasons: an aging population; reliance on drug therapy as a less costly alternative to surgery or talk therapy; and the availability of new “lifestyle” drugs, such as Propecia for hair growth; and

It pays to shop around

If you’re one of the estimated 26 percent of Americans who lack insurance for prescription drugs, you know how bills can add up. According to the National Association of Chain Drug Stores, the typical 65-year-old takes nine different prescription medicines a year at an average of about $38 per bottle. If that person were to refill all nine prescriptions once a month, annual out-of-pocket expenses would run to more than $4,000.

You can cut costs significantly by comparison shopping, as we found when pricing five common brand-name drugs from dozens of sources. We turned up price gaps of more than 40 percent—or $45 per prescription—for the same drug (see the table at right).

The best deals generally came from online pharmacies (the box on page 42 lists the major players). Though they won’t give you face-to-face contact with a druggist, they do keep medical profiles and provide the kind of instructions most pharmacies do.

The prices at Costco Wholesale, a warehouse membership club, were nearly as low as those at the online drugstores. On average, independent pharmacies were the most expensive, though the extra service they provide may be worth the surcharge to you.

Beyond shopping around, how can you save? Ask your doctor or pharmacist if there’s an appropriate, generic alternative to a brand-name drug. (As a rough rule, you’ll save at least 50 percent when buying generic drugs.) Ask your doctor if you can have a prescription for a large quantity of pills, which may reduce the cost per pill. And if you’re a senior citizen, make sure you’re already receiving a discount. Many stores offer 10 percent off.

What might you pay?

The following table, based on calls to 26 sources, lists the lowest, highest, and average prices we found at each type of store for an identical prescription for five popular drugs.

<table>
<thead>
<tr>
<th>DRUG CATEGORY</th>
<th>ANTIBIOTIC</th>
<th>ANTIHISTAMINE</th>
<th>CHOLESTEROL-REDUCER</th>
<th>BLOOD-THINNER</th>
<th>ANTIDEPRESSANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand name</td>
<td>Blaxin</td>
<td>Claritin</td>
<td>Meracor</td>
<td>Coumadin</td>
<td>Prozac</td>
</tr>
<tr>
<td>Outlet</td>
<td>low-high</td>
<td>avg.</td>
<td>low-high</td>
<td>avg.</td>
<td>low-high</td>
</tr>
<tr>
<td>Drugstore chains</td>
<td>$44-$57</td>
<td>$55</td>
<td>$71-$398</td>
<td>$77</td>
<td>$64-$78</td>
</tr>
<tr>
<td>Independents</td>
<td>53-72</td>
<td>59</td>
<td>70-95</td>
<td>84</td>
<td>69-100</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>51-57</td>
<td>53</td>
<td>78-78</td>
<td>77</td>
<td>68-76</td>
</tr>
<tr>
<td>Mass merchants</td>
<td>47-55</td>
<td>51</td>
<td>58-72</td>
<td>65</td>
<td>57-89</td>
</tr>
<tr>
<td>Online/mail order</td>
<td>43-51</td>
<td>46</td>
<td>57-64</td>
<td>60</td>
<td>60-67</td>
</tr>
<tr>
<td>Saving with online/mail order, based on comparison of avg.</td>
<td>10-22%</td>
<td>8-29%</td>
<td>0-20%</td>
<td>0-15%</td>
<td>3-22%</td>
</tr>
</tbody>
</table>

It’s illegal to use a foreign-based online company to buy drugs that require a prescription in the U.S. but not in the foreign country. Our reporter, though, could have done so easily. In checking a health profile he provided, a New Zealand-based cyberpharmacy noticed that he has allergies. It offered him the antihistamine Claritin without a prescription and for nearly half its usual price in the U.S. He declined.
a fivefold increase, to an estimated $1.5 billion, in spending for ads directed at consumers.

Carmen Catizone, executive director of the National Association of Boards of Pharmacy, which oversees all 50 state pharmacy licensing boards, said that drugstores are having trouble keeping up with the workload: "Pharmacists are working 12-hour shifts without lunch or bathroom breaks."

The average pharmacist fills some 13,000 prescriptions a year, a figure that could rise by 35 percent within several years. Because it takes at least five years to train a pharmacist, because pharmacy-school enrollment isn't keeping pace with demand, and because many new drugs require more interaction with the druggist, not less, the demands on druggists aren't likely to decrease anytime soon.

State laws govern who fills prescriptions, and most state laws require that a licensed pharmacist be on duty whenever medications are dispensed. Many also require that there be one druggist for every trained technician. Some states, however, are considering changing that ratio to one druggist for three or four technicians. And some stores are thinking of sending a roving pharmacist from store to store or dispensing more medicine in prepackaged amounts instead of moving pills from big bottles to little ones.

Anything that would shorten a wait might sound appealing; the trick is to enact such change while maintaining proper supervision.

The upshot for consumers

How has all of this changed the picture for people who buy prescription drugs? For one thing, they've been moved to the background. The real customer at the local drugstore is no longer the gentleman who brings in a prescription for ulcer medication. It's the giant insurance company he belongs to, with which the drugstore has signed a contract to be a "participating provider." Here are other changes that may be more evident:

Fewer stores to choose from. To negotiate better deals with drug suppliers and to keep from being bullied by insurers, drugstore chains have been swallowing each other. The mergers have created four dominant chains—CVS, Eckerd, Rite Aid, and Walgreens—and made for fewer players overall. Mergers and managed care's control over prescription-drug payment rates have had the greatest effect on independent drugstores, the type with which our readers were most satisfied. In the past decade the number of independents has fallen from about 37,000 to about 25,000. Independents now account for approximately 40 percent of all pharmacies.

Independents derive a larger per-

Putting druggists to the test  Prescription for disaster?

It's natural to trust a pharmacist's advice on taking medicine, but if our undercover investigation is any indication, maybe you shouldn't, at least when herbal supplements are involved.

We sent shoppers in six states to 25 pharmacies—chain, independent, mass-merchandise, and supermarket—with a prescription for Coumadin, an anticoagulant recommended for people with such conditions as phlebitis. At the same time, we had them buy ginkgo biloba, an over-the-counter herbal remedy claimed to improve brain function. Like Coumadin, ginkgo is a blood-thinner. Taken together, the two have the potential to cause bleeding anywhere in the body, including the brain, where bleeding might result in a stroke.

In a carefully scripted scenario, our shoppers picked up a bottle of ginkgo while waiting for their Coumadin prescription to be filled. They then held both drugs, asked to speak to the pharmacist, and requested advice on taking Coumadin. If the druggist said nothing about ginkgo, the shopper held up the herb, said, "I'm going to take this, too," and awaited a reply.

No pharmacist volunteered anything about the two drugs without being asked. Once we asked, he or she gave wrong or incomplete advice in 16 of the 25 purchases. (Remarkably, on four occasions, the druggist paused to research potential problems and still provided inaccurate information.) Four druggists were unsure of interactions and advised shoppers to check with their doctor. Only five emphatically warned against taking ginkgo with Coumadin. (When our reporter specifically queried two online drugstores about ginkgo-Coumadin interactions, they came through with similar warnings.)

Consider these comments from the pharmacists:

* A Kmart pharmacist in Oregon told our shopper it was OK to take ginkgo, but only one tablet three times a day instead of the recommended two tablets.
* At a Winn-Dixie supermarket in Florida, the druggist said Coumadin could cause bleeding. He provided proper warnings about aspirin. Yet when our shopper held up ginkgo and said she would be taking it, too, he simply directed her to the checkout counter.
* At a Minnesota independent, the pharmacist was annoyed when our shopper interrupted a conversation about fishing. He said there was another herb that shouldn't be taken with Coumadin but was adamant it wasn't ginkgo.

The responses indicate that many pharmacists lack critical knowledge about herbal supplements, which was no surprise to one industry insider with whom we spoke. Such remedies have played an insignificant role in the curriculum at most pharmacy schools, he noted, and the medical community's "healthy dose of skepticism" about the value of herbs has resulted in their being given short shrift by traditional textbooks and the sources pharmacists consult at work.

Although the government does little to regulate herbal remedies (see "Herbal Rx," March 1999), it does require over-the-counter medicines and supplements to have a label with warnings and instructions for use. However, the label may not list potential interactions with specific prescription drugs.

No such label is even required for most prescription medications. The store-issued printouts that commonly accompany them are voluntary and are derived from medical databases.

Our advice: Don't leave your doctor's office or a web site—or sign a form at the pharmacy counter declining your right to speak with the druggist—without a thorough understanding of the prescribed drug and how it interacts with other medicines, foods, and over-the-counter products.
centage of their income from prescriptions (about 80 percent) than do chain drugstores (about 40 percent). And chains can make up for meager drug profits by selling a broader variety of merchandise at a higher profit.

John Termine, co-owner of the Higginum Drug Center in Haddam, Conn., and a pharmacist for 25 years, summed up the plight of the independent: "I could fill prescriptions that cost me $300 apiece all day long and still just make enough to get by." He now supplements his income by selling lottery tickets, toys, even coffee.

But the slide of the independent has slowed. Although about 1,300 independents were folding or selling out to big chains annually during most of the 1990s, only 121 did so in 1998. To improve their purchasing power, independents have begun forming intrastate and interstate networks, and many have also allied themselves with the companies that stock them with drugs and other merchandise. They use the supplier's name—Good Neighbor or Legend, for example—and contract with it for services like advertising and for private-label products. Because stores linked under such an arrangement can buy in bulk, they can charge more-competitive prices.

Higher prices. Almost four in ten readers told us they must pay some or all of their drug bill, and it's costing them significantly more to feel better these days. Prescription-drug costs are rising about three times as fast as overall health costs. Health plans are struggling to contain annual increases of 16 percent or more in drug expenses, approximately eight times the rate of inflation.

Drug makers have long maintained that they have to charge high prices to cover the ever-increasing expense of developing new drugs. The industry estimates that it now costs as much as $500 million to bring a new drug from lab to market, up from $125 million in 1976. Even with these high research-and-development costs, however, drug manufacturers have been among the nation's most profitable companies for more than 50 years. Pharmaceutical economics researcher Alan Sager of Boston University recently calculated that throughout the 1990s the drug industry's profit margin has been more than twice the U.S. average. In 1998 the industry attained a return on equity of nearly 40 percent.

"Drug companies are producing wonderful products," says Debra Stern, vice president of Experts, a California drug-benefit consulting company. "But they're pricing whatever the market will bear."

Research isn't even the biggest expense for pharmaceutical companies; marketing is. Although the exact breakdown varies from one company to another, the industry as a whole spends at least as much advertising and promoting drugs as it does developing them—and some major firms spend much more.

Drug prices are usually lower in Canada, Western Europe, and Japan than they are in the U.S., due in part to government-mandated price controls there. But while an individual can buy small amounts of medication abroad, it's illegal for wholesalers or retailers to reimport domestically made drugs shipped outside the U.S. We found especially low prices online; our readers who had to pay for their own drugs found that mass merchandisers offered the best prices among bricks-and-mortar stores. For more on prices and saving money, see "It Pays to Shop Around," page 39.

More mistakes: Consumers' failure to follow directions on prescription drugs results in thousands of hospitalizations costing an estimated $20 billion a year, but it's hard to track how many errors are committed by drugstores. Tony Grasha, a psychology professor at the University of Cincinnati, estimates that for every 1 million prescriptions filled, only about 30 will contain a clinically significant mistake that goes unnoticed by the pharmacist or patient. What's "clinically significant"? Anything causing adverse symptoms, from a headache to serious illness. Grasha, who received a pharmacy-industry grant to study human factors that lead to mistakes behind the drug counter, calculated that at least 15,000 such
The ins and outs of online drugstores

Order medications online and you avoid a drive, but how easy is it? We tried two of the better-known online drugstores, PlanetRx and drugstore.com. Besides offering drugs, vitamins, and health and beauty products, both sites dispense confidential advice (you can e-mail or phone questions to a pharmacist 24 hours a day), provide prescription-refill reminders and warnings about interactions, let you look up information about drugs and illnesses, and list the prices of medications. You place orders via a secure server—you can also use the phone—and both companies promise not to divulge personal information unless it's legally required.

After our reporter bought Coumadin and ginkgo, the same medicines as our undercover shoppers, both companies promptly e-mailed acknowledgments, and they sent reports about the status of his order. PlanetRx accepted a faxed copy of his doctor's prescription (and verified it); Drugstore.com contacted his doctor directly. The PlanetRx order came in one package, within a week. Drugstore.com sent the order in two shipments. Both arrived within a week, though they were spaced two days apart. The information sent with the medications did not mention a possible Coumadin-ginkgo interaction. However, when our reporter asked about potential problems via e-mail, pharmacists from both companies responded within a day and provided proper warnings.

Whatever online store you choose, keep these points in mind:

- It may not accept your insurance. Online drugstores are still establishing relationships with insurance companies.
- Expect to wait five to ten days for standard delivery. Orders may not be processed on Saturdays, Sundays, and holidays. Even "overnight" orders can take two or three days to arrive. Reorder medication for existing conditions well before you run out. In an emergency, stick with your local store.
- Ask about shipping charges. Basic fees for first-class delivery range from no charge to a flat fee of about $4; some cyberdrugstores base fees on package weight. For second-day or overnight delivery, fees can rise to as much as $15 or $20.
- Is the site legitimate? Selling prescription drugs is more complicated than selling books. Online drugstores must meet strict government regulations and must be licensed to fill prescriptions in at least 40 states. Legitimate sites like those at left also have to combat the sleazy image of online merchants who peddle drugs to people who don't have a prescription (see the box at right).

The National Association of Boards of Pharmacy is introducing the Verified Internet Pharmacy Practice Sites program (VIPPS), designed to help consumers identify sites that are licensed and in good standing with regulatory agencies. An online pharmacy seeking certification must submit a detailed application. If approved, the company can display the VIPPS seal, whose authenticity can be checked by visiting the association's web site (www.nabp.net).

<table>
<thead>
<tr>
<th>Site</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soma</td>
<td>Free standard mail; $7 UPS second day; $11 overnight. Soma is owned by CVS; you can order online for pickup at your local CVS.</td>
</tr>
<tr>
<td>drugstore.com</td>
<td>Free standard mail; $6 UPS second day; $12 overnight.</td>
</tr>
<tr>
<td>planetRx</td>
<td>Free standard mail; $8 second day; $10 overnight.</td>
</tr>
<tr>
<td>yourPharmacy.com</td>
<td>Free standard mail; $8 Federal Express second day; $13 overnight.</td>
</tr>
<tr>
<td>DrugPlace.com</td>
<td>Standard mail rate based on weight (usual charge about $1); Priority Mail about $3 for less than 2 lb; overnight rates depend on location and value of order (usually $15 to $20).</td>
</tr>
<tr>
<td>DrugEmporium.com</td>
<td>Free standard mail (first order), $4 thereafter; about $3.50 second day. Above $75, free UPS shipping. Overnight charge depends on weight and destination (about $5 to $10 per prescription bottle).</td>
</tr>
<tr>
<td>AARP Pharmacy</td>
<td>$1 per order standard mail (allow 10 days); $13.95 overnight. No advance payment required for AARP members.</td>
</tr>
</tbody>
</table>

| Shipping fees are for prescription orders only; different rates often apply to other merchandise. 1. Anyone can participate, not just AARP members. |
Pssst... want some Viagra?

The chance to turn a fast profit has led to a wealth of web sites peddling drugs to help you lose weight, grow hair, and improve your love life—all without seeing a doctor. You need only a credit card. "No more embarrassment and bothersome details," "no more doctors," read pitches for the impotence pill Viagra.

When you log on to a site, you’re offered an online “consultation” so you can get a prescription. The consultation costs $50 to $85 and typically entails answering questions about your medical history and consenting to tell the truth and use the drug properly. A person the site identifies as a doctor then reviews the questionnaire to see if you qualify for a prescription.

Our reporter ordered Viagra and Xenical, a new diet drug, from web sites he found by searching for the drugs’ names. Both drugs arrived less than a week later. The Viagra came from a drugstore in Miami; it had been prescribed by a doctor licensed to practice in Mexico but not in New York, where our reporter placed the order. The Xenical had been prescribed by a doctor in New Zealand.

The unseen physicians had no way of knowing that the reporter had inflated his weight and fabricated a story about sexual problems. And that’s why authorities are critical of web sites that involve no face-to-face consultation or physical exam. What’s more, you can’t be sure that the drug you’ve ordered is within its expiration date, that it has been stored correctly—even that it’s authentic.

Sleazy web sites are proving to be a challenge for state medical boards and government agencies. New sites are continually springing up, and there’s often no way to separate a reputable source from someone who has a computer and a warehouse full of drugs. "It’s complicated new territory and very difficult to police," admitted a spokeswoman for the Food and Drug Administration (FDA).

At a hearing in late July before a House Commerce subcommittee, the FDA outlined new efforts to curb illegal marketing of prescription drugs, largely through joint policing by federal and state agencies. But Rep. Ron Klink, D-Pa., a member of the subcommittee, remains skeptical: "Before, [the FDA] had 10 people working on the problem; now they have 20."

Recommendations

Some pharmacies won’t let their customers leave without understanding how to take their medicine; others do little more than collect your payment. If you’re unhappy with your drugstore and have the option of dealing with an independent pharmacy, take it, especially if insurance pays for your prescriptions. Our survey shows that independents are usually far more attuned to your personal needs and total health picture. If you must foot the full cost of drugs, try a mass-merchandise pharmacy or a reputable online pharmacy, especially for non-rush orders. We found online stores reasonably priced and able to provide good advice.

To find a patient-friendly store, look for these qualities:

- The pharmacist should volunteer details about the prescribed drug and answer any questions about over-the-counter products. You should be able
head of pharmacy management at Aetna U.S. Healthcare. “If there’s only one drug in a class, it will by definition be on the formulary.”

Drug companies usually offer price rebates to health plans in exchange for an exclusive or semi-exclusive listing. Other things being equal, a P&T committee is apt to choose the cheapest drug overall. Committees can be wary of admitting new drugs, both because of their price and because the newer a drug is, the less that’s known about its potential problems.

Big managed-care companies such as Aetna U.S. Healthcare and Cigna create and administer their own formularies. Smaller plans contract the job out to companies called pharmacy benefit managers (PBMs). Either way, the process works the same.

Clearly, formularies restrict choice, but they can help keep costs down and can familiarize doctors with the few formulary drugs within each class. Unfortunately, these advantages apply only when formularies remain stable and when doctors are familiar with them. That’s not always the case. A better rebate offer can lead a patient to switch drugs, and a doctor affiliated with many plans may not have time to consult a patient’s formulary before writing a prescription. As a result, some patients receive prescriptions their plan won’t cover, or will cover only with a high copayment.

Assessing a drug plan

Whether a formulary will protect you from inappropriate prescriptions and hold down costs, or whether it will impose unacceptable restrictions, depends on the specifics of your health plan. When choosing a plan, examine the prescription coverage, especially if you take medicine for a chronic condition. Ask about your individual plan: Copayment and coverage can differ from one employer plan to another even if the plan’s name is identical. Consider these questions:

Does the plan have a formulary, and is my drug on it? Many large plans post their formulary on their web site. The plan representative or your company’s employee-benefits coordinator should have the information, too. Avoid any health plan that won’t let you see the formulary before signing up. But be aware that a drug listed today might be dropped next year.

Is the formulary closed, open, or selective? A plan with a closed formulary won’t pay for nonformulary drugs unless your doctor wins a medical appeal. An open formulary allows nonformulary drugs, but the plan may compel you to pay for your doctor’s or their charges a higher copayment. A plan with a selective, or partially closed, formulary may pay for certain drugs only for specialist treatment, or it might exclude “lifestyle” remedies, such as for baldness or obesity. Each type represents about one-third of the market, but the trend is in the direction of the selective.

What drugstores can I use? Some plans have contracts with virtually every drugstore; others opt for a more restrictive (and generally cheaper) contract with just a few pharmacies.

What are the copayments? The latest idea is a multilayer copayment that encourages prescribing of formulary drugs. Cigna, for instance, is introducing a plan that charges $5 for a formulary generic drug, $20 for a formulary brand-name drug, and $40 for a nonformulary brand-name drug.

Is therapeutic substitution required or encouraged? Therapeutic substitution involves exchanging a prescribed drug for one in the same therapeutic class (but not chemically identical, like a generic drug). The subject can arise when you join a new plan or when your current plan revises its formulary. Ask your doctor if a switch is safe, and ask the plan administrator if you can grandfather existing prescriptions or return to the original drug if the substitute doesn’t work.

Does the plan have a cap? A 1997 survey of HMOs by the Novartis pharmaceutical company found that one in five group plans imposed a benefit cap (on the actual cost of the drugs, not on copayments). Often, it’s $2,000 or $3,000 per year. Avoid these plans, if possible.

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