GoodRx Health

A Global Look at Drug Pricing Models: How to Expand Access and Control Costs


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Key takeaways:

- All healthcare systems have limited resources and must determine how to spread those resources across all the patients under their care.
- Among the strategies used to assess the value of a therapy and control costs are health technology assessment, benchmarking, and reference pricing.
- These strategies can be combined into one pricing structure, and some countries, such as Finland, use multiple pricing strategies at the same time.

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The U.S. has the highest prescription drug costs in the world. In 2020, Americans spent almost $350 billion, or more than $1,000 per person, on prescription drugs. Research conducted by GoodRx also indicates that 40% of Americans struggle to afford their prescriptions.

However, other countries use a number of proven strategies to keep costs down and improve medication access, and these models could be implemented in the U.S.

Here, we'll explore how other countries determine the total value of a medication and how patients' out-of-pocket costs are structured. To help us better understand these drug pricing systems, we interviewed Nina Lathia, RPh, MSc, PhD, a pharmacist and health economist who worked for the National Institute for Health and Care Excellence in the United Kingdom.

U.S. drug pricing

Drug pricing in the U.S. is complex because it is primarily driven by negotiations between private parties. There is no federal body that regulates reimbursement rates or patients' out-of-pocket costs. Manufacturers are able to set prices without regulation as well.

Prices are typically negotiated at multiple points along the supply chain. Manufacturers negotiate with distributors, distributors negotiate with pharmacies, and pharmacies negotiate with insurance companies and pharmacy benefit managers.

Pharmacies also join together in Group Purchasing Organizations (GPO) and Pharmacy Services Administration Organizations (PSAO) to have more leverage when negotiating with distributors and payers.

The result is that prices negotiated by different parties can vary widely, leading to a wide variation in patient out-of-pocket costs between pharmacies. This system also results in big differences between insurance companies in what medications they cover and how much patients pay for those medications.

Model 1: Health technology assessment

Many countries decide how much to pay for a medicine based on its value to society, which comes from either cost savings, improved outcomes, or both. For example, if a medicine's proposed price is higher than other medicines for a disease, but people who take it end up in the hospital less often, then the reduced hospital visits is both a cost savings and an improved outcome.

The most widely used tool for assessing the value of any therapy, including medications, is health technology assessment (HTA). HTA is a formal, systematic way of understanding both the direct and indirect consequences of a health technology. In doing so, it can help uncover how much a medication benefits society, both in terms of health outcomes and cost.

There is not one federal agency that conducts HTAs in the U.S., but they are used by some private insurance companies and state governments. A good example is the Oregon Health Evidence Review Commission, which aids in making coverage decisions for the Oregon Health Plan.

Some of the factors taken into account during the HTA process include the medication's efficacy, safety, outcomes, and cost-effectiveness. An HTA committee will also take into account special considerations, such as social, legal, and ethical concerns.

In practice

In Australia, the Pharmaceutical Benefits Advisory Committee (PBAC) is responsible for conducting an HTA and deciding whether a medication should be included in the Pharmaceutical Benefits Scheme, which is the list of medications covered by Australia's national health insurance. There are separate committees to evaluate medical services and prostheses.

The members of the PBAC are appointed by the government and include physicians and other health professionals, health economists, and consumers. Medications go through the HTA process after receiving regulatory approval through the Therapeutic Goods Administration (TGA), a government agency similar to the Food and Drug Administration in the U.S.

According to the Australian government's most recent review of its HTA process, the country's approach to HTA aims to answer three key questions about the treatments it reviews:

- Is it safe?
- Does it improve health outcomes overall?
- Is it cost effective?

In March 2022, for example, the PBAC evaluated abemaciclib for a potential new indication. The PBAC deferred approval, meaning the PBS would not provide reimbursement for the medication when prescribed for this new indication. That's because there were questions about who would be most likely to benefit from it and whether the drug provides meaningful improvements over existing treatments.

Abemaciclib is an expensive medication — in the U.S. it costs almost $14,000 per month — so adding a new indication to the national formulary would represent a significant cost, and thus it is important to ensure the medication will be going to those who will benefit the most.

Special considerations — orphan drugs

One of the special considerations that is taken into account when conducting an HTA is whether the medication is an orphan drug, which means it treats a rare condition and is not anticipated to be used for a large segment of the population.

Orphan drugs might go through a different HTA process in some countries because the traditional process, which emphasizes cost-effectiveness, is not as applicable to treatments for rare, debilitating conditions. An orphan drug HTA process, such as the Highly Specialized Technologies Guidance in the U.K., will take into account the treatment's total impact on the healthcare budget, the vulnerability of the patient group, the level of evidence for its efficacy and its safety profile, and the need for companies to earn a return on investment when developing medications for a very small patient population.

Reference pricing

Reference pricing is a widely used strategy in which an insurer sets a maximum price it will pay for a medication based on the price of other similar available medications. For example, an insurer might pay a set amount for one month of any ACE inhibitor prescribed. If the patient chooses to purchase one of the more expensive ACE inhibitors, they will be required to pay the difference between the amount the payer reimburses and the total cost — unless they have received special authorization for the more expensive medication from their healthcare provider.

Reference pricing is an alternative to the tiered reimbursement structure that is commonly used in the U.S. In this system, medications are placed on different tiers by different insurers and manufacturers can offer rebates to the insurer in exchange for their product being listed on a lower tier. This is important to manufacturers because lower tiers come with lower patient out-of-pocket costs, which encourages the use of the medication.

One downside to using the tiered structure is that similar medications can end up costing patients very different amounts based on the negotiations between private insurers and drug manufacturers.

In practice

In Canada, the province of British Columbia has used reference pricing for quite some time as a cost-control mechanism. There are seven classes of medications in BC's reference pricing program: H2 blockers, angiotensin receptor blockers, dihydropyridine calcium channel blockers, proton pump inhibitors, statins, NSAIDs, and ACE inhibitors.

For these seven classes, the province's insurance plan, PharmaCare, reviews the costs of the medications in each category and determines the maximum daily amount it is willing to pay. Each category includes at least one medication that costs less than the reference price, so there is always at least one option that is fully covered.

When a patient is prescribed a medication that costs more than the reference price, pharmacists are allowed to substitute the prescribed medication with the reference medication. If the patient chooses to take a more expensive medication instead, they are required to pay the difference. It is important to note, however, that there is a process for patients to receive special permission to get full coverage of non-reference drugs if needed.

External reference pricing

External reference pricing, sometimes called benchmarking or international reference pricing, is the practice of setting the price insurance will pay for a medication based on the price paid in other countries.

Reference countries are often similar in terms of per-capita GDP and health system structure, or they might be close geographically, though a variety of factors might be taken into consideration when deciding what countries to use for comparison. For example, Switzerland and the United States were both removed from Canada's reference pricing system because of those countries' high drug prices.

In practice

External reference pricing is very common globally. The Commonwealth Fund has noted that this practice is used in 23 of 27 European Union countries, as well as in Brazil, Australia, Canada, Jordan, and South Africa. It is not, however, a practice used widely in the U.S.

In the European Union, external reference pricing plays a major role in drug pricing decisions in 16 countries and plays a supportive, or complementary, role in others. It is most commonly employed for branded medications, but can also be used for generics. There are still other countries that reserve the use of external reference pricing for medications that fall into a specified category, such as innovator drugs or reimbursable drugs (meaning only those reimbursed under the national health system).

Innovation in drug pricing

In addition to these commonly used models, the consulting firm PWC notes multiple other innovative pricing mechanisms that are gaining traction:

- **Value-based contracts:** These contracts tie the price of a medication to how effective it is in the real-world setting. A notable example in the U.S. is Entresto. Enestro's manufacturer, Novartis, projected that it would save medical costs by providing improved outcomes over ACE-inhibitors. Prime Therapeutics entered into a value-based contract with Novartis for Entresto and, after conducting research into the medication's performance, removed the prior authorization requirement for it.
- **The mortgage model:** In this model, the manufacturer's cost for expensive therapies is spread out over time in order to ease the financial pressure on payers.
- **The subscription model:** This model allows the payer to "subscribe" to a medication, paying a set amount to get unlimited access to the medication for a set period of time. The report notes that the state of Washington signed an agreement of this nature for Hepatitis C therapies with the goal of eliminating the disease within the state by 2030.
- **Indication-specific pricing:** This pricing model reimburses based on the drug's efficacy in treating a specific indication. If a medication is approved for multiple indications, it might be reimbursed at a higher rate, or be placed in a lower tier, for some indications than for others.
- **Volume-based pricing:** Pricing in this model is based on how much of a medication is purchased. It is most useful when the payer needs to purchase a large amount, like with vaccines or generic drugs.

Putting it all together — Finland

Some countries, like England, have almost no out-of-pocket costs, which some critics argue leads to overutilization and hides the value of care. Others, like the U.S., have out-of-pocket costs high enough to prevent many patients from being able to access the healthcare they need. Finland has a pricing structure that aims to strike a balance between the two, allowing patients to access care while still requiring them to be financially responsible for a portion of it.

In Finland, a patient's out-of-pocket cost for a medication depends on what reimbursement category the medication is in. In the lowest reimbursement category, the health system pays only 40% and the patient pays the remaining 60%. In the highest reimbursement category, the cost of the medication is completely covered and the patient only pays a dispensing fee of 4.50 euros. All prices are listed publicly in a government database. There is an initial deductible of 50 euros for most citizens and an out-of-pocket maximum of 592.16 euros (about $576).

This system has some similarities to the tiered structure used in the U.S., but one key difference is that, in Finland, a medication's category is determined by the severity of the illness it is used to treat, not on its total cost. So patients who have higher healthcare needs receive more help paying for their medications.

One criticism of the Finnish system has been that it might discourage the use of high-value, preventive medications, like high blood pressure or cholesterol medications, because they are often placed in a tier that requires a higher patient out-of-pocket cost. However, coverage decisions are transparent and overseen by a government agency. The country's Pharmaceutical Pricing Board, which is under the Ministry of Social Affairs and Health, meets regularly to decide on reimbursement of medicines and clinical nutritional preparations.

Finland also uses reference pricing for many generic medication classes. Pharmacies will substitute a prescribed medication with its reference medication, unless the doctor does not allow substitution. If a patient wants to receive the original medication, they will be required to pay the difference in price, on top of the deductible and their portion of the cost of the medication.

Finland's per-capita drug spending for outpatient prescription medicine was 2.3 billion euros ($2.3 billion) in 2020, or about $423 per person. Their total prescription cost, including over-the-counter and inpatient medicines, was $639 per person. Despite a drug pricing system that places a lower financial burden on patients, the total amount spent on medications is significantly lower in Finland than in the U.S., where the amount tops $1,000 per person.

The bottom line

There are several ways that other countries control drug costs while maintaining access to treatment for their residents, and years of data show the effectiveness of some of these approaches. By taking a broad approach to drug pricing and using multiple drug pricing models, we can ensure we are getting the most value for all Americans.


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