

FTC Understanding Competition in Prescription Drug Markets: Entry and Supply Chain
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Segment 4: Panel 3
Transcript

Good afternoon. My name is Marcus Meyer. I'm an Assistant Director here at the FTC. I run what's known as the Health Care Division, which are about 38 lawyers that full-time devote themselves to enforcing anti-trust law in the health care area. So I'm not really a policy person, I'm primarily a law enforcer. But I'm going to be putting on a policy hat today.

First I want to thank, in advance, all of our panelists for agreeing to participate, and taking the time to prepare, and taking the time to be here. We really appreciate it. Our panelists, as you're going to soon find out, bring a broad range of experience to the issues we're going to be discussing, and they have a wide range of viewpoints. And hopefully we'll get a taste of that, if not a better understanding.

So without further ado, let me briefly introduce each. As with all the other speakers in this program, there are full bios available. So I'm just going to touch on-- at a very high level.

At the far left is Todd Ebert, he's the President and CEO of the Health Care Supply Chain Association, that's the trade association for GPOs, and he is a registered pharmacist. Next to him is Stephanie Trunk, she is a partner at Arent Fox Law Firm, so that means she's lawyer. Next to her is Erin Fox, she's the Senior Director of the Drug Information and Support Services at the University of Utah, and she's a PharmD. And next to her is Hal Singer. He's a Principle at Economists Incorporated, he has a PhD in economics. And last, but certainly not least, is Anthony Barrueta, a Senior Vice President for Government Relations with Kaiser Foundation Health Plan. And he's also a lawyer, like me.

Briefly, before I ask the first speaker to come up, I want to just give a few remarks. So in one form or another, group purchasing organizations have existed for more than a century now. And in 1986, Congress created a safe harbor provision under the anti-kickback laws, allowing GPOs to accept fees directly from the vendors with whom they contract. And in 1991, the Health and Human Services Office of Inspector General issued regulations explaining the circumstances under which GPOs would come, would fall within or qualify, for those safe harbors. Nonetheless for the past 15 years or so, it seems like every year or two, Congress has asked the Government Accountability Office, or the HHSOIG, or on their own initiative have done some kind of a hearing on GPOs. In fact, as I was preparing for this I collected just some of those reports. You can find them on the GAO website, the HHS websites, and also just on various congressional websites. They seem to come up, roughly, every two years for the last 15 years. And like clockwork, roughly every two years for the last 15 years, the GPO industry has also issued its own studies that it commissioned from various people, not always the same people, but various different groups and organizations, to put out the word as to why GPOs are a good thing and how they benefit society and their members.

Those on the pro GPO side argue that group purchasing organizations reduce transactions costs by negotiating contracts with thousands and thousands of vendors, and also, obviously, for their hospital members. They clearly increased their hospital members' bargaining power in those negotiations with vendors, and we're talking about everything from suppliers of cotton balls to pharmaceuticals to MRIs to laundry services and food services, and all kinds of other things that hospitals buy. So they increase the hospital's bargaining power, and they secure volume discounts that might otherwise be unavailable to their hospital members. And, if you do some searching around on GPOs, you'll find that they enjoy a high level of customer satisfaction based on survey research that's been done by people at the Wharton School. In other words, their hospital members seem to like what they're doing. So what could be, what could anybody want to criticize here?

On the other hand, there are those people who have come out and have been fairly critical of the role of GPOs. And they allege that GPOs are fraught with conflicts of interest, little bit of the theme that we heard earlier today with the PBM discussion. And this seems to be exacerbated, if not created, by the fact that they actually get most of their revenues from the vendors, the suppliers that they contract with, rather than from their member hospitals. And so people allege that there is an agency principal problem, and this can create conflicts of interest. And more recently, some also argue that GPOs have played some kind of a leading role in creating drug shortages in particular generic injectables in the hospital settings.

It's unlikely that we're going to resolve that debate here today, but we do hope to shed some light on the issues and possibly identify some paths toward answering the questions that this session will raise.

At this time, I'd like to ask Tony to come on up, I'm sorry Todd to come on up. Excuse me.

TODD EBERT: Thank you, Mr. Meyer. And good afternoon to all. We appreciate the opportunity to be here today to demonstrate and overview the tremendous value the group purchasing provides the US health care system. And also afterwards, I trust that I'll be able to answer many of the questions you may have relative to group purchasing.

So what is group purchasing? We are the critical-- go to push the button sorry. We are the critical sourcing and cost-saving partners to hospitals, long-term care facilities, nursing home surgery centers, clinics, home health care agencies, etc. For more than a century, we have leveraged purchasing volume to lower prices on health products and services, which lowers cost to patients, hospitals, and payers. The GPO mission is focused on reducing health care costs, increasing competition and innovation, supporting transparency, and improving health care processes and outcomes.

Virtually every hospital and vast majority of non-acute care organizations, facilities, use a GPO in the United States. GPOs are competitive, and use is completely voluntary. Let me say that again, GPOs are competitive, and their use is completely voluntary. That goes for providers, as well as suppliers. They choose to use a GPO based upon the value and the value derived. Product decisions are made at the facility level. When GPOs make product decisions relative to their portfolio, many times, and very frequently, they use clinical or member advisory boards, or

councils, to help them make decisions relative to what that portfolio should look like. So it's a very member-driven process.

We have processes in place to identify innovative and breakthrough products, which are added to our contracts. And many times we help them to market. And there are many success stories relative to that issue. And our contract administrative fee ranges between 1.22% to 2.25%.

Looking at the map, this gives you an idea where the GPOs are located, as well as the customers, both urban and rural. And every one of them, as I've said, are able to use a GPO based upon their choosing or not.

GPOs reduce costs for health care providers. There's been a broad range of empirical and academic research that finds GPOs reduce costs for health care providers. There's a number of studies that have been done that have been referenced. The latest one from Liebowitz, O'Brien, and Anello I'll detail a little bit later in a couple of other slides. But there have been studies that demonstrate that we showed cost savings, considerable cost savings-- Dobson and D'avonzo and Gene Schneller, a study from the American Hospital Association and the Wharton School, relative to member satisfaction and support of GPOs, and then also, a study from the Purdue University Krannert School of Management that addresses administrative fees have no effect on total purchasing cost. So, as you can see, there's a tremendous amount of savings, and they range between 10% to 18% for those who use the GPO.

Former Chairman John Liebowitz and Deputy Director Dan O'Brien affirmed that GPOs save costs. They did a complete and comprehensive economic and legal analysis of the role business model and impact of GPOs. And what did they find? We save money for the health care providers. We vigorously compete in the marketplace. The current funding model is consistent with competition and cost savings. And also, very importantly, changing the GPO vendor funding model would likely raise costs.

What else did they find? GPOs operate in a highly competitive market. More than 100 national, regional, and local GPOs, as well as regional cooperatives, compete with each other provide GPO services. The market operates as though it's unconcentrated with more than 10 independent contractors or competitors of equal size. Providers can choose, and do choose, between multiple GPOs. Many times they may use more than one GPO at a time. In fact, the range in which providers use GPOs is between two or three GPOs per provider.

Providers often control, and own, the GPOs which creates a strong incentive to offer competitive pricing. And providers can purchase from a competing GPO or from a manufacturer or a supplier directly, that's their choice. Intense competition suggests that the vendor-fee model is more efficient than other models.

So let's take a look at our safe harbor guidelines, in essence, our federal operating guidelines or principles. In 1987, the Medicare and Medicaid Patient Protection Act codified the GPO safe harbor. What it did was merely clarify that the existing business practices were lawful. Administrative fees were collected prior to this, but this just did, as I said, codified the safe harbor. What it requires of GPOs is this, we have to have a written contract with our customers.

We must disclose the administrative fees so they know what admin fees are being collected. And we must report annually, to each member, how much purchase volume and admin fee that each hospital or provider that the GPO earns using what those guys using their contracts.

Let me explain that. On an annual basis, for each supplier, the GPO must identify the supplier, the contract volume, and the administrative fee that was earned. And it's total up so they know exactly what the administrative fees have been for the various organizations. And then hospitals must report the fee distribution as part of their Medicare costs reports. On an annual basis, each GPO will send a note, as a reminder, to each one of their customers that they need to use this information to complete their CMS costs reports accurately.

Now from a business model and oversight, this is one of 23 safe harbors that were addressed in 1987. So it's common. If you look at other organizations that leverage the group buying and vendor fee model, they include government procurement DOD, VA, Amazon credit card companies and others. And then a number of federal agencies and others have looked at the GPO model, and all have concluded that no change is needed.

On top of that, GPOs are the most transparent sector in health care. What do I mean by that? The GPOs voluntarily put together the health care group purchasing industry initiative, which is an independent, as I said, voluntary organization that would collectively demonstrate a strong commitment to transparency and ethical values. And what we do is this, and everyone voluntarily submits to this, an annual survey, which is quite comprehensive. And I know this as a past CEO of a national GPO. I had to sign my name and attest to its accuracy. That survey is completed, it is then submitted to the managers of the program, former Congressman Phil English, former senator Byron Dorgan, they review it. And what they have found is this, we operate with high ethical standards, business practices that promote innovation, transparency in the bidding process, and compliance. Every GPO, who is part of the association and the initiative, has a code of conduct. There is an independent grievance process through the American Arbitration Association. And all GPO contracts are voluntary and the product of competitive market negotiations.

Now what else have we been doing relative to some of the key issues that have been highlighted in this particular discussion today? GPOs embrace a very robust and competitive pharmaceutical industry. We take drug shortages and price spikes extremely seriously. We work very closely with, not only regulators, industry suppliers, distributors, and our own customers, to make sure that we provide products, the best that we can, and try to mitigate the issues relative to drug shortages.

And, in fact, it's been spoken today relative to the the FDA user fee agreement, GPOs have been actively involved, working with Congress, and that they paid attention to some of our solutions as you've heard earlier today, to include in the user fee agreement a component relative to when there are three or fewer products in the marketplace, there is an express lane to get more competition in the marketplace. We encourage and we support competition.

There are a number of other things, as you can see, based upon what I have on the slides, that we do to work with our customers to mitigate drug shortages, working closely with them, finding different alternatives, etc., etc.

Now take a look at the fact of some of the other things that what GPOs do. We are constantly working with our customers, our members, to understand what their needs are, and also to understand where the market's going, and to make sure that we meet their needs. As you can see from the slide, there are a number of issues that we work with and work towards to help our customers. I'll just highlight two of them because there are many. We develop communities of knowledge to share best practices. What that is, is helping organizations throughout the country, and the various GPOs, identify opportunities to implement best practices to improve health care and reduce costs, wherever possible. That's a big deal. Hospitals like to learn from hospitals.

Another thing that you may not be aware of that hospitals or GPOs have been very, very involved with emergency preparedness and natural disaster responses. Just recently, and I know these are top of mind for every organization or every individual, that Irma, Harvey, Maria, Las Vegas, as well as Puerto Rico, and the fires in northern California, every GPO with a customer in those particular areas has worked with their customers, where they can, in advance. To understand what their needs may be, to anticipate what they need, they will work with manufacturers and distributors so that when the event is over and the coast is clear, and they're clear to be able to get product in, they work very closely with their customers to make sure that they have products that treat their patients in need.

Just one quick example, and that is one of our GPOs working with the hospital association, a state hospital association chartered a flight to go down to Puerto Rico, and took medical supplies, which included insulin for diabetic patients. So GPOs are actively involved, and our customers are very appreciative of what we do to help them in these natural disaster situations.

So in summary, GPOs save money. We're highly competitive. It's a voluntary market, and our providers, our customer, support us. We are transparent, and very ethical and our business practices. We work for our customers and the patients they serve. And we operate in a very effective and efficient marketplace. Thank you and I look forward to the dialogue.

[CLAPPING]

STEPHANIE TRUNK: So as Marcus indicated, I'm Stephanie Trunk. I am a partner here at the law firm of Arent Fox here in Washington DC, and I focus my practice on the pharmaceutical supply chain. And in particular, I have expertise in drug price reporting for manufacturers under the various federal programs, such as Medicaid, Medicare and the VA federal supply schedule program.

In my role as a attorney in private practice, I also counsel the Health Care Distribution Alliance, which is the primary trade association for primary wholesalers and distributors throughout the United States. And it's in that capacity that I'm here today not to officially represent HCDA, but to explain the role of wholesalers and distributors in our pharmaceutical supply chain, what role

they have related to drug pricing, as well as the intersection between wholesalers and distributors and GPOs.

So wholesalers and distributors, their primary role is logistical. They deliver drugs, medical supplies, durable medical equipment, from a myriad of pharmaceutical manufacturers throughout the United States to any and all downstream purchasers. And they can be entities such as pharmacies, hospitals, long-term care facilities, and clinics. They are the conduit through which medicines travel from the manufacturer to the patient.

It's very important to understand that, again, the role is logistical. Distributors and wholesalers do not prescribe product, they do not manufacture product, and they do not dispense products to patients. In fact, 93% of all the pharmaceuticals in the United States do flow through primary distributors.

This slide illustrates the role of wholesalers in the market. It's a slide that comes from Adam Fein's drug channels blog that he had up earlier. And you can see that they act as the conduit between the manufacturer and the ultimate buyer, whether it be a pharmacy or clinic who dispenses, or administers, the drug to patients.

Wholesalers and distributors focus significant amount of resources on making sure that our drug supply is safe and secure, and efficiently delivered. In fact, that may be their primary value that they bring to the pharmaceutical supply chain is this secure distribution of pharmaceuticals throughout the United States. The Health Care Distribution alliance, or HDA, was actually integral to the passage of the Drug Supply Claims Security Act, which is an act that's aimed at ensuring that we know where our drug is in every link of the supply chain, and that it securely gets from point A, at the manufacturer, to the ultimate end consumer, and ultimately us, dispensed to us as patients from the pharmacy.

Wholesalers and distributors also allow for one-stop ordering for all drugs and supplies, and they allow providers to have just-in-time drug inventories. So in other words, pharmacies don't need to stockpile a whole bunch of amoxicillin or a whole bunch of one given drug. If they run out, they're able to order it, and have it efficiently delivered by a wholesaler distributor.

Distributors provide a variety of services to manufacturers and their downstream customers. There's things such as inventory management, obviously receiving orders and delivering orders, and chargeback management. And what chargeback management involves, is when a member of a GPO purchases a product under a GPO-negotiated agreement with a manufacturer, they can still obtain that product from the distributor at the negotiated price. And there is a chargeback to the manufacturer of the difference between a wholesale acquisition price and the underlying member price under that GPO agreement.

Distributors and wholesalers are paid on what is known as a service-fee model. They receive bona fide service fees from manufacturer for their services they provide. And to be a bona fide service fee, and this is a term of art that comes from the Medicaid drug rebate program, you have to meet four criteria. It has to be for itemized services provided to manufacturers that a manufacturer would otherwise perform or contract for in the absence of the service arrangement.

Has to be fair market value. And it has to not be passed on in whole or in part to any downstream customer. This is the primary means at which distributors and wholesalers are compensated. And these fees for service tend to be set forth at a individual service level rather than one bucket, and they tend to be WACC-based.

Distributors do not profit if a manufacturer increases the wholesale acquisition costs or list costs of a drug, even for their existing inventory. Most arrangements between manufacturers and distributors mandate that distributors pay what is known as price appreciation credits back to a manufacturer, or for the inventory on their shelves, to the extent that a WACC increase is taken. And the idea there is that wholesalers and distributors truly are fee for service-based compensation, that they do not make money under an arbitrage model.

So as to what do wholesalers, distributors charge on the other side to their downstream customers, whether it be a pharmacy, or a clinic, or a hospital. For branded products, most of the time wholesalers and distributors buy at WACC from a manufacturer, and sell at WACC to their downstream customers. So again, no spread of profit. The entire compensation to wholesalers and distributors is the service fees that they charge to manufacturers. And it's important to note that they have no visibility into WACC pricing decisions by manufacturers. Those are made exclusively by manufacturers.

Generics can get a little bit more complicated just because, as we've been talking about all morning, the market for generic drugs varies by class by class. But it also tends to be more of a commodity-based market than for branded drugs. So distributors might sell various generic drugs at WACC to downstream customers.

Or they might have list prices for their generics that consider various market considerations or forces, including the supply of competing products. Obviously if there a shortage on Mylan's supply of amoxicillin and only Teva's is available, that's going to impact the list price for that Teva supply that the distributor has. They also consider the WACCs for all the competing generic drugs or therapeutic equivalents in a class.

Distributors also may create and offer what are often called generic sourcing programs, or generic sourcing pricing, to some or all customers. What this involves is a wholesaler or a distributor going to certain generic manufacturers to negotiate substantial discounts or rebates related to certain generic products or classes of products. And a really good illustration of this is with oral contraceptives.

A wholesaler may go to one manufacturer and say, I'll buy all my needs for oral contraceptives exclusively from you, but in exchange I want substantial discounts on those purchases. Then they're able to craft programs in which they're able to offer some or all of those additional discounts or rebates to downstream customers. And they're usually tied to some sort of exclusivity of purchasing for the class requirements, or volume commitments.

As to the intersection between GPOs and wholesalers or distributors, there by and large is not any direct relationship between these two types of intermediaries. They don't tend to have direct agreements with one another. Manufacturers, of course, have agreements with GPOs, where they

agree to sell certain products to GPO members at certain negotiated prices, sometimes with purchasing and volume commitments, sometimes not, just because based on the GPO membership.

And GPO members don't have to buy those drugs directly. Again, they can acquire them through their same distributor or wholesaler relationships. And the wholesaler and distributor manages that differential in price between the WACC that it might normally sell the drug at, and the negotiated GPO price through a chargeback system with the manufacturers.

Distributors and wholesalers have also had a very recent interesting intersection with other players throughout the chain. And we've noted this over the last few years-- the pop up of these kind of conglomerations between a distributor and a pharmacy chain, or some sort of retail buying group. And I put up a few examples. The first being the Walgreens Alliance Boots AmerisourceBergen arrangement. There's also a McKesson and Wal-Mart arrangement. And a Cardinal-CVS arrangement.

These are not mergers or consolidations of these entities formally as corporations. They're more negotiated contractual arrangements, where there might be some exclusivity or volume commitments for the pharmacy chains to order certain needs through one of these distributors that they've partnered with. And in return they get substantial discounts on generic for their purchasing pharmacies. So this has been kind of a new twist on pricing competition throughout the chain. End with that, I'll hand it over to Erin.

[APPLAUSE]

ERIN R. FOX: Well, thank you so much. It's an honor to be here today. I want to put up this disclosure. I won't read it to you. These are my own opinions. I'm not speaking on behalf of the University of Utah. University of Utah Health is a member of Vizient, which is a GPO. And our drug information service, we do receive some funding from Vizient to provide drug shortage content.

So today I've been asked to provide a frontline perspective on what it's like to actually be out there purchasing medications. So this is something our hospital system does every day. It's something I'm very involved with. And I want to hit four challenges that we have in purchasing medications. Drug shortages, relatively few choices when we go to buy drugs, no transparency in order to make a quality-based decision, and not really knowing what the price is.

So I first want to hit drug shortages. I know we've heard about them on several panels but I really want to focus on this. Hospitals today are facing very, very critical shortages of the most basic products you can imagine. These are things like saline and morphine-- things that hospitals, clinics operating rooms need to run their business every day, and we're short. These are mainly generic injectables.

And I want to kind of define what do I mean when I talk about a shortage. Well, I'm using the definition published by the American Society of Health System Pharmacists, and this is a clinician-based definition. So we talk about a shortage when the pharmacy has to change the way

they prepare a medication. So think about using a different concentration, or maybe a pre-mixed product is no longer available and the hospital has to compound that medication. Those changes can cause errors and patient harm.

We also talk about a shortage when prescribers have to use an alternative, or a different medication altogether. And then sometimes there are shortages that delay therapy, or patients actually go without treatment.

So what happens during a shortage? Pharmacists know really, really well what happens during a shortage. We find alternatives, we find work-arounds. And we do work with our physician colleagues to prioritize some patients and ration patient care.

But one of the huge factors that really is rather invisible in drug shortage management are the huge labor costs required to manage shortages. So it takes an extraordinary amount of work to change the electronic medical systems we have in place for safety. So electronic health records, physician order entry systems, smart pump and fusion systems. These are all for safety, but they actually all require that you use the exact same product, at the exact same time, all the time. It's extremely difficult to make changes in these systems and it takes a very, very long time.

So I want to just again hit on this increased labor, because this is work that is going on every day in hospitals that should not be having to occur if we could simply purchase the products that we need. So this picture-- this is what it looks like when you lose your entire supply of sodium bicarb due to a recall. It takes a lot of work to go around your hospital and gather it all up.

I also want to highlight an example of making a clinically appropriate switch. Our hospital is very, very low on small saline bags. Due to the shortage, we have switched two of our products-- our chemotherapy anti-emetic treatments-- to be IV push.

This is clinically safe. It's just fine to do for patient care. But because electronic health record folks like Cerner and Epic make it extremely difficult to make a change in these systems, it required a change of 700 different treatment plans, and hundreds of hours of work. That's just for two drugs.

So we have a very fragile supply chain when we think about genetic injectable drugs. In general, these shortages are caused by poor quality manufacturing problems at the facilities. The drug manufacturers have poor quality. FDA has told us time and time again, that really is the reason for these shortages.

We also have very few suppliers. So when we only have one or two companies supplying these products, if one company has a problem we automatically have a shortage. These companies also have very limited capacity. They have not made investments to improve their facilities and add new manufacturing lines.

And it's important to remember that drug manufacturing is a business first. No matter how critical or life-saving, no manufacturing company has to make any drug. It's a business first.

So I really want to make sure everyone understands that these poor quality situations really do cause patient harm. This is an example of a drug company that in 2011 received an FDA warning letter. That warning letter outlined years of noncompliance with good manufacturing practices. As a result, that company chose to close down their facility to try to fix things, finally.

And one of the products that they were short on, and this created a shortage of, is zinc injection. And this photo is from CDC. This happened at Children's National Hospital. And these premature infants suffered dermatologic adverse effects simply because they were not able to receive the zinc supplementation they needed. So there's real patient harm at the end of these drug shortages. Not just additional work for pharmacies.

So one of the second challenges that I mentioned was we don't have a lot of choice. It's very, very common, even if there are multiple suppliers of a product, for just one company to make about 90% of the total supply. So it might look like there are two or three suppliers, but in reality one company is usually making most of that product.

And the first panel today did an excellent job of outlining what limits competition and new entrants to the market, so I'm not going to rehash that. But I do want to mention something that wasn't talked about earlier today. And practices change due to shortages. So if we have reliable alternative medication during a shortage, it's actually very unlikely unless it's prohibitively costly-- it's unlikely that the hospitals are going to switch back to the old product. And part of that is all of the work that it takes to change out the electronic medical record.

So one of the other things is that earlier this summer Senator Blumenthal sent a letter really airing his concerns about mergers of pharmaceutical companies. We've talked about consolidation today. And earlier this spring we had shortages of products because of the Pfizer-Hospira merger, and those shortages occurred in part because Pfizer wanted to switch over the distribution and purchasing method for those Hospira products.

So we had drug shortages simply because of that merger. And to my knowledge, FTC does not take into account concerns about the public health, or concerns from FDA when they consider a merger of two companies.

The other thing that I think we really need to think about is our medications. Should some medications be considered to be critical infrastructure? When saline shortages can paralyze hospitals so that we're having to cancel surgeries and not be able to deliver the care that patients need, should companies be considered critical infrastructure? I think it's an important question to think about.

So one of the other challenges that we have is we don't have the information we need to make a quality-based purchase. So there is absolutely no requirement for a firm selling you a product to disclose which company actually made that product. And contract manufacturing means that a lot of the companies make products for other companies to label and sell.

And so even though FDA does a great job of providing the warning letters and inspection forms on their website these are often redacted. And the list of products manufactured at any given

facility is considered to be proprietary. So for all of you guys, that's why we don't have a really complete list of all the drugs made in Puerto Rico, because so much of that is proprietary.

But these quality data are important. When we know drug shortages are due in part to quality-- in a large part due to quality-- it would be very important for us to spend our dollars wisely, and purchase based on quality.

The other point that we don't have a lot of data around are the 503B compounders. FDA provides a list of these. Hospitals are using these compounding pharmacies to help bridge and gap the drug shortages that we're experiencing, but we have virtually no data about whether or not these companies have closed out their inspections.

So one of the last items that I was asked to address in kind of a grab bag of what it's like to be a purchaser-- and Dr. Sood did a great job earlier today of talking about how complicated knowing how much something costs is. I think that's one of the most complicated questions that you can be asked. How much does that drug cost?

Well, it depends. And it depends usually based on who's buying the drug, but it also can depend on who's paying for the drug. And so I won't read you all those acronyms. I think most of them have been defined earlier on today. But it is complicated to know what the price is for a medication.

So just a couple of takeaways. Drug shortages mean the hospitals don't have the critical medications we need for patient care. We also don't have very many choices. Even when we do go out to buy the products that we need we usually only have a choice of one or two items-- companies, especially when we're dealing with injectables.

We know quality problems are an issue, but we have no way to follow that data and make a quality-based purchasing decision. And drug pricing is complicated. I'll turn it over to Hal.

[APPLAUSE]

HAL SINGER: Good afternoon, everybody. Thanks for having me here. As the token economist on the panel, I'm going to assume that my role is to inject a little humor into the event, so when I make a nose signal you're supposed to laugh at the jokes. Here goes.

The last time I spoke on this topic was about five years ago at the D.C. premiere of the film, *Puncture*. And I was unexpectedly called to the stage by the movie's producer to give a talk about the role of GPOs, and it was a real test of my nerves. And given the run time of the movie, which is an hour and 40 minutes, plus a large Diet Coke, it was also a test on my bladder.

There will be no dancing on this stage today, but there will be some economics. And for that, I apologize in advance. And this is the slide where I not so humbly brag about my contribution to the literature. I'll be talking about the piece with Bob Litan and Anna Birkenbach in a bit.

And Anna is here in the audience. She might wave her hands. At the time Anna was my research assistant, but since then she has gotten a PhD in economics at Duke. And my pro tip for you guys is always to hire someone who is smarter than you are.

There's a lot of text on this slide. But the key takeaway for those taking notes at home is this. I love cheap GPOs. They make the world a better place. Relative to a world without GPOs, they do great things for hospitals, including reducing transaction costs and consolidating bargaining power.

But-- and this is a big but-- I am not interested in studying a world without GPOs. In my "but for" world-- and my kids love it when I say that-- GPOs bring all that great stuff and leave behind, no pun intended, only one attribute, namely their perverse compensation structure. That's it.

So I get really tired of hearing evidence of GPO-funded studies that purport to show the benefits of GPOs relative to a world without GPOs. Let's just stipulate that GPOs do great things. The relevant question is, would they do even greater things if they didn't face a conflict of interest when it comes to their compensation?

Alas, GPOs are not the only gatekeepers who are conflicted by their compensation structure and our economy. Take the case of municipalities who are tasked with granting-- who were tasked with granting cable licenses to entrants, namely the telcos and the OTTs, and they fought like hell to keep them out.

Or take the case of prisons that are tasked with awarding concessions for prison telephone service. Now guess who pays the prisons for this right. The phone companies. Or at least in 37 states they do. And as economics would predict, the telephone rates in those states that permit what are called site commissions-- which is a nice way of saying kickbacks-- are higher than the rates in states that ban site commissions.

Now I'm doing everything I can to gently ease you into the economics, so let's do a little more soft stuff just to get into the mood. The first bullet reveals that hospital executives are actually in on the take here. The quote says that the GPO distribution payments are an integral part of their compensation. So you could see how hospital executives' incentives might diverge from that of the hospital.

The second quote is from Obama's assistant secretary of HHS, noting how GPOs alter the normal functioning of market supply and demand. All right. So I warned you. And there's two of these figures so let's try to dive in.

You guys remember I hope from econ 101 the pricing rule of a monopolist, right? And that rule was that you should find the demand curve, then construct what's called a marginal revenue curve-- that's the line that's bending down below it-- intersect that with the cost curve, look back up at the demand curve, and you'll get your monopoly price. Does anyone remember that? That's a PM on the graph, right?

And this is a special case. I'm going to go to the harder case in a second. But this is a special case-- it's not all that special-- where we assume that the marginal cost of the product being purchased is zero. This actually could approximate a drug, right? If you think of the active ingredient of a drug, the price of making the very last pill is approximately zero.

So in this case, the price that a monopolist supplier chooses to maximize profit just so happens to be the price that maximizes revenue. And that's that blue box. And you'll have to take me at my word here, but this flows from econ 101. You cannot pick a price anywhere along that demand curve that will result in a bigger box, a bigger area of revenues.

If you go down that demand curve and you pick a different price you will get a smaller box by construction. And because the GPOs are paid as a percentage of the area in that box, the GPOs will never want a price that is below the monopoly price. Now let's go to a slightly harder case. I'm now going to introduce marginal costs, so now you can think of something like a medical device.

Now in this case the profit-maximizing price, which is denoted as PM , is different. In fact, higher than the revenue-maximizing price, which is denoted as P^* . I probably should have done that as PR . And the reason why is that if you start from monopoly price, PM , you can actually expand revenues-- as the marginal revenue curve is still positive-- a little farther down the demand curve.

So I will fully acknowledge that in these cases where the marginal cost is positive are non-trivial. The GPO would have an incentive so long as it's paid as a percentage of the revenue under the contract to push for a lower price. But here's the catch. If the price gets any farther below P^* , starting to head in the direction of PC -- the competitive price-- the revenue box starts to shrink again. And so the GPO no longer wants the prices to fall from there.

So here's two cases hopefully trying to show you in basic economic terms the nature of the conflict of interest. The GPOs members want lower prices, but lower prices mean lower income for the GPO.

So I'll now take you to the study that I did with Anna and Bob Litan. The key takeaway here is that we're trying to isolate what the effect of this broken compensation structure is on prices. And we need to find a benchmark. It's a very common thing in economics.

The best benchmark that we could come up with is what the same hospitals paid for the same equipment, produced by the same manufacturer, and an aftermarket. So we contacted a provider of these aftermarket services. The name was MEMdata. And he gave us thousands and thousands of transactions where a hospital went into the aftermarket. And we compared what they paid under the GPO contract with what they paid in the aftermarket.

And critically, this agent was not paid by the suppliers. Instead, he was paid as a subscription fee from the hospital. And guess what? The average price effect that we found across these thousands of observations in the aftermarket was on the order of 10% to 15% savings. Right So I put that forward as my best estimate of what-- if I could isolate the effect of the compensation structure, this is what I think it's doing in terms of contributing to health care inflation.

There's another harm too, and this is a harm to the government. The government is largely refunding hospitals for the prices that they pay for devices and for drugs. And there's a complication as to how a hospital reflects the rebate it gets back from the GPO.

And the problem-- if it comes back as a lump sum and it reflects a whole bunch of products spread over a whole bunch of manufacturers, it's very hard for the hospital to link that rebate back to a particular item that it purchased. So in its cost reports that go back to the government there is an opportunity for the costs to be inflated, and as a result, the government pays a higher price.

So the paper generated two rebuttals. The first was in 2012, and that came-- one of the authors, Mr. Rooney, was actually the head of the GPO trade association at the time. It was published in the same journal that published the original paper that I wrote. And they offered several critiques. I don't have time to take you through them all. I do have an appendix to my slides that does go one by one explaining why they're wrong, but I do want to just take you through one important one here.

And they said that the sample that I used wasn't representative of the sample of hospitals, or the true price effect. And they pointed to two things. One is that we were only looking-- MEMdata only offered this service for large, high-value devices. We acknowledged that at the beginning. I should say that it represents about 20% of everything that a GPO purchases.

And number two, it's hard to believe that the incentives are somehow out of whack when it comes to high-value products, and just fine for low-value products. It seems like this could be representative for everything that the GPO buys.

The second point that they made was that we're not controlling for the difference in uncertainty over a purchase. Let me see if I can articulate their critique. And that is when a hospital goes into the secondary market or the aftermarket you know that it really, really wants the product badly. There's no uncertainty over that purchase. And so they argue in that case the vendor, sometimes even the same vendor, would undercut itself, will undercut its own GPO bid.

And to that I would acknowledge that there is uncertainty over the purchases of any given hospital that belongs to a GPO, but I don't think that there's a lot of uncertainty across all the hospital purchases that are represented by an individual GPO. And in that case, the GPO ought to be inducing sincere bids. So I respectfully reject both of those critiques.

Now I got one more reply that came just this year in 2007 by this guy named Liebowitz. I think he was the head of the FTC, and he also offered some critiques of the study. Again, I don't have time to take you through each one. In the appendix I go point by point and try to offer my rejoinders. But I will talk about the first one.

They said that we couldn't really isolate the effect of the funding on this price effect that we're finding, that we couldn't attribute it to some other factor. Again, I would point out that to me the only difference between the secondary market and the primary market was the nature of the funding. That was the salient difference at least. And Liebowitz and his co-authors did not offer

any other reason for why the price would be lower in the secondary market. So I will leave it at that.

Now the question is-- I've got a paper that purports to demonstrate price effects in the device space. What are the applications for lessons in the drugs space? And I'm just thinking as an economist there are a few things that are cutting in different ways.

I think that a pharmaceutical maker might have a special type of pricing power above and beyond what a device maker would have. And so to that extent, it might not need the GPO to try to insulate it so much from being able to charge monopoly prices. But on the other hand, we do have some good stories as to what GPOs are doing in this space to cement monopolies and make life difficult for entrants.

On the price effects front, we don't have anything on par to the systematic approach that I offered for devices. But we do have some anecdotal evidence that I would like to share in my last few seconds, and then I will cede the mic. I promise.

The first is I did a study in the Journal of Competition Law & Economics with Kevin Caves, where we looked at bundling arrangements in the pharmaceutical space concerning children vaccines. And we found that Novartis was being shut out of the market by a bundle that was being brokered by a physician group or buying organizations. We found that the only way that Novartis could have broken in was by charging effectively a negative price in order to break through the bundle.

There was a follow-on class action brought against Santa Fe which recently settled alleging a very similar fact pattern. And there are some anecdotal evidence that come from the physicians against drugs shortages. You can go through these and you'll see that there are cases in which doctors are saying that when they went outside of the GPO they were able to get lower prices.

I think that I'm over my time by a minute. I apologize for that. Hopefully I'll get to give you some concluding remarks from the table. Thanks for having me.

[APPLAUSE]

ANTHONY BARRUETA: I would have let you keep going, personally. That would have been OK. And thanks-- a couple of really outstanding presentations that I think helped to lay out much of the reality of the situation that's faced by both hospitals and large systems, and decisions that they need to make.

I want to thank the commission and its staff, and the Food and Drug Administration and their staff for putting this meeting on. I think it's important that we periodically do a deep dive into how these markets are operating, particularly at times when there are anomalies and problems that we are all seeing.

I was looking through my computer for the last time I spoke at one of the Federal Trade Commission workshops on prescription drug prices and I found it was in 2003. And at that time I

was speaking on pharmacy benefit management companies, and I was asked by the commission staff to talk a little bit about formularies.

And from the context of an organization like Kaiser Permanente that uses formularies intensively in a somewhat different context than exists in PBMs and the more network model system as opposed to an integrated system. And I think in some respects I'm here again today to provide a slightly different perspective as a something of a noncombatant in these issues of PBMs and GPOs. But to look from the perspective of an organization that uses the same tools in order to manage the prescription drug benefits, and prescription drug coverage, and prescription drug services, and prescribing services that we provide as an organization.

So for those of you who are not familiar with Kaiser Permanente, I would say we are a fully integrated, multi-specialty group practice model health maintenance organization that provides the full range of health care services, from primary care, up through tertiary hospital services, and everything in-between. And pharmacy services is actually deeply integrated in that system, with our pharmacists and physicians working very closely together to provide the services.

And that has some important impacts-- that we're taking care of 11.8 million people. We have 395 pharmacies, we have several thousand pharmacists, and a lot of this pharmacists are actually providing clinical services directly to patients beyond dispensing of the drugs. And we have a large number of pharmacists and clinical experts who do the work behind the scenes to assess what's going on in terms of the development of new drugs, which ones should be considered for the formulary, which ones should be moved into clinical practice.

So I do think that we do provide a somewhat unique window into this. Because while we do contract with pharmacy benefit management companies as an organization, largely to provide the pharmacy network services for the relatively small proportion of prescriptions that our members need to get filled in an outside pharmacy, we do not use the PBM to negotiate with drug manufacturers on our behalf. Our team does that directly.

And while we do have a contract with repurchasing organization, and it is very important because it's fundamentally impossible for an organization of our breadth to actually be able to maintain the staff to do all of the purchasing work that needs to be done to supply us, we do contract with the GPO. And we've used different models in terms of how that gets paid.

And I was speaking to our folks who manage this work the other day, and we have something like 60 or 70 internal staff who are constantly working on the supply chain, trying to make sure we're sourcing what needs to be sourced, keeping contracts up-to-date. And we have a great relationship with a group purchasing organization that has a similar site staff that's doing many of the same services, almost as if they were our team.

One of the things that is interesting in an organization like ours is we see it's-- because of our integration, and because of the way our physicians really participate in the formulary management process, and because it is the only formulary that they actually have to contend with as Kaiser Permanente physicians, they are generally treating exclusively Kaiser Permanente

patients. And so as physicians they're dealing with the Kaiser Permanente formulary. They've a great deal of knowledge about the process that goes into developing that formulary.

It is their clinical experts who are feeding the information into the process. And there's a tremendous degree of confidence in the integrity of the process. And there's a lot of flexibility built into it as well for physicians who feel that their patients have a particular need for something that is not on the formulary, and are our coverage policies enable those to be provided in an appropriate way.

What that means is that we have almost optimized capability to bring market power to bear in a negotiation with a drug manufacturer when there is a choice. And a choice can be a couple of things. One is using drug A instead of drug B under a certain set of circumstances.

Another one could be really tightly using a drug in a condition where there's kind of clear use for something, and then physicians may feel it's not very clear use in another instance. And then there are also circumstances where because there's just one thing that doesn't get us very much.

Now if we combine our purchasing with other purchasers when our physicians are able to prescribe in a highly consistent way with our formulary, when we join with other purchasers, while we may get some aggregated volume that way we're actually diluting our purchasing power because of the very strong ability to use drug A or drug B.

So we have to actually manage all of this and figure out the optimal way to do this. Turns out that big-ticket very expensive specialty drugs it tends to makes sense for us to negotiate that directly. For a wide array of widely-used drugs it may be more appropriate to use the distributors to manage that for us, or use the group purchasing organization for us as well.

So what I take away from all of that is what we don't really have inside of our organization is this question of agency that people have been raising. Whether it's a real question or not, I am moderately agnostic about this. Because as an intelligent purchaser, our team is really able to monitor that problem very closely, and make choices about which direction they want to go in terms of how they want to manage the contract with the third party administrators-- whether they want to change the scope of that contract or push it back in.

But it also leads me to the question that why don't more organizations build up the capability to be a very strong purchaser like Kaiser Permanente when it comes to facing the supply chain, the supply market. And I think it goes back to some old stuff that got touched on a little bit. And I appreciate Adam Fein's general overview, and I appreciated Ronny's overview and other overviews on this.

But for me, I think one of the biggest problems that we have-- and we have a lot of problems in the prescription drug market. I brought some slides along which are almost incomprehensible even to me. But they're intended to basically demonstrate that we are seeing in our very well-organized, very trouble-free internal system the exact same types of significant cost increases across the spectrum that others are seeing, whether or not they operate in a system that is the more traditional network system, or the more traditional distributor-GPO-PBM kind of system.

And it's pretty clear actually to me. What's going on is prices are increasing. At the end of the day, and this was said a couple of times, while this market is very complicated everything hangs off the price that the manufacturers set. And so it may very well be that others inside the system get a benefit of prices increasing, but the manufacturers are the only ones who can actually set what that price is.

And what we're seeing, particularly in specialty drugs-- we particularly saw this originally in the context of some of the new Hepatitis C drugs-- and in oncologics in particular, astronomical increases in price. I mean we're talking multiple price increases every couple of months, 20% a year, year over year over year. And that's what's going on.

Now we may be able to blame it on a complicated system. I don't personally think so. But I think what underlies this is the need to look at how we wound up building a system that looks like this. And in my view-- everybody has their own view-- a big part of the problem started in 1990 when we developed the Medicaid rebate program, and created the structure of how all of this thing works.

I was once a lawyer that advised pharmaceutical companies. I was a lawyer who advised GPOs. I can tell you whether or not the prices that were offered in the market created a new best price. A new Medicaid rebate level was a major, major issue when manufacturers are trying to figure out where to set the price.

It is a huge deterrent from lowering the prices down below the floor. Because for economic reasons that make perfect sense, when you have a most favored nation system it changes behavior, and it inflates prices in general. And we've had that system in place now for 27 years.

I think we need to think about-- I'm not saying that Medicaid should not get the benefit of discounts in general, or be a favored purchaser in some way, shape, or form. But when you tie that system to what well-organized purchasers can do in terms of exercising purchasing power, you're not allowing them to capture the value of what they've constructed, and you're deterring other purchasers from actually building those systems and investing in those systems that can come in and ultimately drive down-- provide good purchasers pressure on driving down the price of drugs.

So I think it's really important for all of us to realize that we do not operate in an unregulated drug pricing market. We operate in an extremely regulated drug pricing market, and the regulation is inflationary. It's been happening for 27 years. It looked like it took a break a few years ago.

And this goes back-- actually, there was the discussion about what's going on with rebates, and the increase in rebates over the last couple of years. It's actually pretty simple to understand from my point of view. What you saw happening in general, was during the time when all the generics were going off patent you had stealthily increased the prices around specialty drugs. It made it look kind of flat, everybody kind of went to sleep, and then the Hepatitis C drugs hit the market, and everything spiked up.

And Gilead set the price at twice whatever we thought it was going to be. And three years later Merck came to market with a list price that was half that price. And that's when all the discounting started, and that created a huge amount of rebates.

You also had the situation of the expansion of coverage to Medicaid. That created a large number of additional rebates. So there are very systematic things that happened during that period that can explain why you suddenly had this increase in the amount of rebates.

But ultimately, it is a price increase. It is driving higher prices in health care coverage, and it's a problem that we're all going to have to deal with. So I have a whole list of other potential problems to talk about, but I think that's enough for now and we can move on to some discussion. Thanks.

[APPLAUSE]

MARKUS MEIER: So the first thing I want to do is give any panelist an opportunity to respond or build on anything anybody else said. So I'll throw that out there and see if there's any-- I'm getting shake-offs. OK. Good. Fine. This one's for Todd.

During my opening remarks I pointed out that GPOs have come under re-occurring scrutiny from Congress over the last 15 years, perhaps even longer than that. What do you think accounts for this?

TODD EBERT: Is it on? Yeah. OK. Thank you. Interesting question. I think there are a couple of reasons. Number one is we operate in a market where there is an inherent friction. We have suppliers and we have the GPOs. What's the goal of a supplier? To raise volume and earn revenue.

What's the goal for a GPO? It is to reduce price and increase value for the customers we serve. And our customers are hospitals and the other providers that I talked about. And we describe that as competition, and we think competition is good.

The other thing is we do operate under a statutory safe harbor which gives rise to oversight. I'm sure that with the safe harbor there are individuals that will say, let's take a look at it. But I do think it's important to know that this oversight has never resulted in any negative or problem issues.

Every time we've recognized that there were questions asked we provided the data that's important to provide, and there had never been any issues. We continue to demonstrate that we save money. We operate with our transparency initiative, and plus we follow the GPO safe harbor.

And we continue to improve and enhance our transparency processes. So I think those are two reasons why there's competition. And sometimes in a competitive market there's winners and losers. And sometimes folks don't like that.

MARKUS MEIER: So Erin, some, as we've heard today, accuse GPOs of responsibility for drug shortages problems, especially in hospitals, especially with respect to generic injectables. From your perspective as a hospital pharmacist, what role do you think GPOs have played either in making the problem worse, or helping to solve the problem?

ERIN R. FOX: So that's an interesting question. I think certainly in recent years I've seen GPOs-- our former GPO, Innovation, they actually participated in some at-risk contracting. So they would ask members, what are the most critical medications that you're most worried about losing access to? And I know that they worked with other suppliers where the GPO was actually at risk if the members didn't purchase that product.

And so I think that's one innovative way that GPOs have certainly tried to help with the shortage problem. Private labeling sometimes helps. But honestly, the GPOs can't-- they don't have a manufacturing plant, so they can't certainly manufacture products. And there's honestly not a whole lot many folks can do, except for the manufacturing companies, to fix that issue.

MARKUS MEIER: Do you think that sole sourcing and giving all the business to one company, and negotiating tough contracts that really squeeze down margins-- do you see that as playing any role?

ERIN R. FOX: I think it could. It could. Certainly I don't have a lot of experience with that. Certainly we see a lot of movement in the market. Companies stopped making a product or they start making a product-- that could be because they didn't gain access to a contract. But we don't have a lot of visibility there, so--

MARKUS MEIER: So Hal, as you indicated during your remarks, buying groups are certainly not unique to the health care industry. They can be found in all manner of other industries. And I think Todd, you made this point, too.

And nor is the practice of funding activities of various types of group purchasing organizations through vendor fees. It doesn't appear that that necessarily is also-- not necessarily unique to the health care industry. In your opinion, is there something about hospital GPOs that raise a special concern? And if so, what are they?

HAL SINGER: Well, sure. I would say that I acknowledge that these sorts of arrangements are observed in other industries in the economy. But whenever you have a buying agent who's being compensated by someone other than his or her principal it can lead to conflicts of interests.

I have given you the prison example, prison pay phone example. And the municipalities fought to keep the telcos out of the cable television market. Why I think it's particularly pernicious in the health care industry I think is twofold.

The first is that we're talking about something that accounts for I think on the order of 18% of our GDP. So if we have broken incentives that are causing inflation and something that's such a large part of our economy, and given that the government is one of the biggest spenders in this

sector, if we've got something wrong we're going to cause a massive diversion of resources away from something that could otherwise be much more productive for the economy.

The second point I'd make is that I think innovation is special when it comes to the health care industry, more so than say, cardboard-- I don't mean to pick on cardboard guys. But we want entrants to believe that the playing field is level and they have a shot at getting on these contracts.

And if they feel as if the playing field is slanted in the favor of the incumbent, that could cause them to just throw in the towel. And so I'm worried that if we don't get enough innovation in the device and in the pharma space because these contracts appear to be impermeable, that we could actually cause another significant innovation harm to the economy as well.

MARKUS MEIER: Stephanie, I understand-- from your remarks I have a better sense of how drug wholesalers and distributors are paid, and you talked about them being paid on a fee-for-service model, and what does not appear to be a vendor fee model like GPOs. Do you think the model that the wholesalers and distributors use can provide any insights on whether GPOs knows might be able to operate successfully using a similar payment model?

STEPHANIE TRUNK: I think the difference in the distinction that I see between the fee-for-service model that we see with wholesalers and distributors, and the way that GPOs receive fees from vendors, is really who the customer is. And I think that we've kind of had a shift in the way-- since we've gone from an arbitrage model for wholesalers and distributors, that we're making money.

Basically, when WACCs increase or prices increase for drugs to this service fee model, make it clear that really the customers of distributors and wholesalers are manufacturers. And that the service that they're providing is moving their product, and enabling their product to move from point A to point B without a manufacturer having to have its own secure efficient distribution system.

The distinction with a GPO being paid by those same manufacturers, at least in my mind, is who are they the agent of. The whole idea of the GPO safe harbor is that they are the purchasing agent of the members, and the members are the hospitals. And I do believe that being paid by the suppliers can create a conflict of interest for the GPOs with those members, as we've seen today.

MARKUS MEIER: So Tony, I was going to ask you a question about how does Kaiser do things. But you-- even though your slides didn't show that you nicely spoke about that, so I'm not going to ask you that. But I got the sense that you had more to offer on maybe some of the lessons that others could learn from the Kaiser experience, and maybe you could share a little bit more if there is more that you had to say.

ANTHONY BARRUETA: I do think that it is interesting that we're at a time right now when there's broad concern about the impact of much increased costs in the pharmaceutical space, across almost the entire remainder of the health care spectrum. And so everybody's starting to

take another look at it. Everybody is starting to look at how they're playing in this system and potentially contributing to it.

At the end of the day, I think most players in the health care system are awakening to the fact that, as Hal said, we're consuming 18% of the wealth of the country to provide health care services. And that ought to be enough to be able to provide the services that people need for everybody and do it really well. It's twice as much as most other places in the world.

And that requires a different mindset about how we're going about doing things. And putting affordability at the forefront of all of our activities, in order to get that last 10% of the people we want to get covered covered in a way that is fiscally responsible, and that providers can actually achieve. It's something that most people I know who work in the health care system want to do.

And I think the challenge is I'm not convinced that the pharmaceutical sector is there yet. There's still a mindset that it's-- and I wouldn't challenge it as being other than well-intentioned. But a basic belief that there needs to be this constant increase in costs in order to drive innovation, in order to bring good things to the market, I'm not persuaded that it's optimized in terms of developing new innovation. And we've seen that recently, where products increasing in cost for no reason is not innovation.

So I think it's really important for the other players, no matter where they-- and it is completely appropriate for us to be looking at how the different pieces fit together, and what the incentives look like inside all of this. But I have to say we work with a lot of people across the health care system, and most of them want to try to turn the corner and figure out how we can make all of this stuff work better and more affordably.

And there's an obvious source of a different attitude that needs to be brought along. And so I think people need to coalesce around how can we make this work better in a way that brings competitive pressure in. And if competitive pressure doesn't work, then we're going to have to look at other options, too.

MARKUS MEIER: Well, I think you just talked about the elephant in the room that we've been skirting around all day, and it's a lot bigger issue than the remit of this panel and what I came prepared for. So I'm going to try to-- but I appreciate those remarks and agree with it, but I think I'm going to bring it back to what we're doing here on this panel.

ANTHONY BARRUETA: Oh, Mark, if I could add one thing.

MARKUS MEIER: Sure.

ANTHONY BARRUETA: There was something that's relevant to this that I think might be of value. Because it is this question of rebates, and people are wondering what's the impact of rebates and how does it fit into the system. Organizationally, we have a very strong preference, and we're very open with this about the manufacturers. We would much prefer upfront discounts than rebates. And it's for kind of obvious reasons.

If you have an upfront discount you can actually load it into your cost methodology. You can load it into your pricing methodology. We can actually load it into the premiums that we're charging people for health care coverage, and it's in real time.

And so rebates for accounting purposes and just practical delay purposes make that more complicated. It means it gets pushed back into your business finance decision-making, and what are you going to subsidize with what. And it makes it much, much more challenging.

And I think this relates to this idea of, is there a way to get price concessions pushed forward so that we can actually have them realized at the point of service somehow. It's not an easy problem to solve, but I don't think it's for lack of desire to figure that out and solve it.

And there's probably-- I don't have an answer. But just knowing that an organization like ours that's actually at risk for the whole thing, and wants to have the lowest possible net cost and the most reasonable possible premium for coverage, it would be good for us to figure out how to push those price concessions forward.

TODD EBERT: Can I jump in on that one specific to rebates? I think that's an important differentiation to make, too. And as you indicated, Tony, GPOs look for net pricing. That's what you want. Every once in a while the only thing that's offered is a rebate, and that's the only way you're going to get that price concession.

I think it's very important to understand that in a GPO setting the rebates are reduction in prices from the manufacturer that go directly back to the facility. GPOs don't keep them. They go right back to the facility relative to the reduction of prices. And there's a big difference relative to some of the discussions that have occurred today as well.

MARKUS MEIER: I appreciate those remarks. So during our organizational call yesterday I gave everybody on the panel a warning that this question was coming and I'm throwing it open for everybody. Despite all of the government studies that I held up, and the private studies of GPOs that are out there, the GAO's 2014 study concludes, quote, "There is little"-- not zero, but little-- "empirical evidence to definitively assess the impact of vendor fee-based funding structures protected under the safe harbor laws."

So my question, again, open to all of you, is if somebody were to try to a study-- if somebody had the power to do the kind of study that would really answer this question, how might one design an empirical study capable of getting to the bottom of a question about the net effects, positive or negative of GPOs, and their reliance on vendor fees? Hal?

HAL SINGER: All right. So I thought about your question. And I think that the gold standard in the economics profession would be a randomized trial. But before I get into how that would work, I just want to reiterate that the methodology that we used-- which was to compare pricing on the GPO contract, with pricing in the aftermarket of the same device for the same hospital, and sometimes by the same supplier-- is pretty darn good. And that's a technical term.

I think that I haven't heard anyone yet articulate how we have introduced some sort of selection bias that cuts in a way of overstating the price effect that we've found. But setting that aside, if you were to use a randomized trial, what you could do is you could randomly select a certain number of hospitals-- 100-- to purchase through a GPO that is not funded by its suppliers.

And give them a basket of goods to go out and buy, and then do the same for 100 randomly selected hospitals to purchase through a GPO that was funded by its suppliers. And do a comparison controlling for all sorts of things that you could try to do. But hopefully, there you would isolate what the effect of the funding structure was on pricing.

TODD EBERT: Can I jump in here, please?

MARKUS MEIER: Absolutely.

TODD EBERT: Thank you. The challenge is, as I indicated, relative to that study design, is every hospital in the country uses a GPO for some reason or another. Even to the point that Tony talked about, there are organizations like Kaiser who have made decisions to utilize a GPO to some degree or another. That's how it operates.

So the challenge is, Markus-- and I thought about it as well. And that is can you find hospital zero that doesn't use a GPO anywhere? You can't. You can't. And therefore, is there a way to design a study? To Mr. Singer's point it has to be randomized, but it has to be a market basket. A market basket that talks about the whole overview of the products used, not just a subsection.

So the other thing is-- and we've identified this and shown this as well, and I know this is looked at in some marketplaces, too, and I think this is important from the GPO perspective-- ask the customer. The customers, the people that I work with in supply chain are extremely intelligent and savvy businesspeople. They see suppliers on a daily basis. They understand where the marketplace is.

Just as Tony talked about your people at Kaiser, and I know they're sharp as tacks, they make good decisions relative to what is best for their organization. So that's why we've asked the Wharton School through-- we didn't. AHA did in the Wharton School. But we identified that the supplier-- not suppliers. Providers support and appreciate unlike their GPOs.

And maybe the way to do it is ask the customers. Because as I said, they are smart cookies. They know what's going on. And they'll make the right decisions for their organizations and the patients they treat.

MARKUS MEIER: So yeah. I definitely looked at the Wharton School study, and I know professor Burns from Wharton very well. And it is one of the few really well-conducted surveys that are out there that provide some insight on this. But I was struck by the fact that there was only about a 16% response rate to the survey, which kind of leaves you wondering what else is going on out there. But Hal, you had something you wanted to say?

HAL SINGER: Just on the note of surveys, the problem that-- I'm sure these are very smart, sophisticated folks, but the problem is that they don't have transparency into the prices of everything that's in the marketplace. And so the only way for them to know that they're paying a premium by going through a supplier sided GPO would be to take their bid out into the aftermarket and find out what that price is. And unless there are markets that are set up to accommodate those searches, and unless there is transparency, which I argue there is not, I don't know if they are making the decisions with complete information.

TODD EBERT: If you don't mind, I would argue that the supply chain individuals have a very good idea and comprehension of the market and where it's at. Suppliers are in to these organizations on a daily basis cutting deals or trying to cut deals. It's a competitive market, which we've talked about.

They're free to make choices. They know what's going on in the marketplace, and they also know that they'll make the right decisions for their organizations and the facilities they serve, and the patients they serve. And I will still refer you back to our maps with the scattergrams. Every hospital in the country uses a GPO for some reason and it provides value. That's why.

So So when Tony was talking, he was talking about--

HAL SINGER: I guess you have the last word.

MARKUS MEIER: Yeah. I want to move on, give some others a chance to jump in here, too. Tony was talking about the need for innovation in health care, and I think we all understand how important innovation is. Does anybody-- and this is sort of the last question I think I'll throw out there.

Does anybody foresee changes in technology changing how those wholesalers and distributors operate? Is it possible that some kind of a business model is going to come along like what we see with Amazon or eBay that could even make the distribution system that we know today obsolete in our lifetimes? Any thoughts on that.

HAL SINGER: I'm not an expert in 3D printing so I'm not going to talk about it.

STEPHANIE TRUNK: I think our current wholesale distribution system is actually very, very sophisticated today. It almost is kind of Amazon-esque, in that there are warehouses and facilities throughout the entire United States. Such that if you're at a hospital in New York and you need to place an order with Cardinal, it's going to come from-- maybe not in New York, but maybe it's New Jersey. It's somewhere in the Upper East coast. You're not going to have to wait three days for it to be flown from California.

It's very, very sophisticated-- the actual infrastructure. The ordering is done online in a very secure system. The DSSA has gone a long, long way in getting our kind of chain of custody kind of more sophisticated through that system. And the stamps that get on the product from when it leaves the manufacturer to then when it arrives at the pharmacy.

So I think we're already a pretty sophisticated space. I think one area where we could see improvement at least, it may be the uploading of the direct contracts. Whether-- or GPO contracts for the membership between that and the distributors that distribute their product.

There's still sometimes a lag in that chargeback process. And it occurs with any of those direct agreements. It's not real time. It's not an instant exchange among systems.

And the same is true for that same chargeback system that is used to administer some of the federal programs like the 340B membership and verification of the 340B membership with HRSA. So I think there's always room for improvement when you're talking about IT functionality, but that we really already got a pretty sophisticated delivery system.

HAL SINGER: I think she--

MARKUS MEIER: Somebody want the last word?

TODD EBERT: Oh. I get the second to the last, then. He can go ahead now.

MARKUS MEIER: We'll give you the last, and second to last word.

HAL SINGER: And the question was about technology, I think obviating the need for GPOs. And I'll say that the person who supplied us the database, MEMdata, for these online bidding aftermarkets, I thought was very innovative, and I thought could be a market-based solution.

However, MEMdata was acquired by Premier. And I don't think that that online marketplace, at least that Bob Yancey created, is functioning any longer. I do think that if you had a vibrant online aftermarket going it would obviate the function of at least one service that the GPO provides, which is reducing transaction costs.

But on the other hand, I think that there's an essential element that the GPO provides that can't be obviated through technology, and that's consolidating buying power of a bunch of hospitals. So in the world that I envision, there would be a continued role and function for GPOs, just albeit with a different funding mechanism.

MARKUS MEIER: All right, Todd. You get one minute.

TODD EBERT: Two quick points. The MEMdata function still exists within Premiere and it's still used. Secondly, I think it's pretty cool that everybody's paying attention to what Amazon may do, and could be doing in this marketplace. And what does it do? And this is from our perspective. We embrace competition.

If somebody comes in with a different business model-- and you know what it did relative to dot coms in the year 2000. Everybody in the group purchasing industry looked at it and said, how do we improve to compete? And that's what I think is cool about it. If somebody comes in with a different business model-- and you can bet even distributors and large systems are looking at what might Amazon do.

And so I think that's something that's really unique. It's an open market which allows people to compete, and that's what we do. And then the other thing from a data perspective, every GPO has become very adept at supply chain data and their ability to marry that up with clinical outcomes. That's really getting to be pretty cool, because that leads to comparative effectiveness and that's what you're looking for. That's the holy grail. So now I'm done.

MARKUS MEIER: All right. Well, thank you. So I think we're going to wrap it up. We have a break right now. I want to thank the panelists again. And I want to thank everybody also for your cooperation getting us back on time. And let's go ahead and take our break. Thank you.

[APPLAUSE]