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    LEGISLATIVE PROPOSALS TO
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    PREVENT AND RESPOND TO GENERIC DRUG SHORTAGES
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    THURSDAY, SEPTEMBER 14, 2023
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    House of Representatives,
    Subcommittee on Health,
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    Committee on Energy and Commerce,
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    Washington, D.C.
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          The subcommittee met, pursuant to call, at 10:01 a.m.,
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     in Room 2123 of the Rayburn House Office Building, Hon. Brett
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    Guthrie [chairman of the subcommittee] presiding.
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          Present: Representatives Guthrie, Burgess, Latta,
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    Griffith, Bilirakis, Johnson, Bucshon, Hudson, Carter, Pence,
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    Joyce, Harshbarger, Miller-Meeks, Rodgers (ex officio);
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    Eshoo, Sarbanes, Cardenas, Ruiz, Dingell, Kuster, Kelly,
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Barragan, Craig, Schrier, Trahan, and Pallone (ex officio). 22 Also present: Representative Castor. 23 24 25 Staff Present: Jolie Brochin, Clerk, Health; Seth Gold, Professional Staff Member, Health; Grace Graham, Chief 26 Counsel, Health; Emily King, Member Services Director; Emma 27 Schultheis, Staff Assistant; Lydia Abma, Minority Policy 28 Analyst; Keegan Cardman, Minority Staff Assistant; Tiffany 29 30 Guarascio, Minority Staff Director; Stephen Holland, Minority Senior Health Counsel; Katarina Morgan, Minority Health 31 Fellow; Avni Patel, Minority Health Fellow; Andrew Souvall, 32 Minority Director of Communications, Outreach, and Member 33 Services; and Rick Van Buren, Minority Senior Health Counsel. 34 35

36 *Mr. Guthrie. The subcommittee will come to order. The 37 subcommittee will come to order, and the chair will recognize 38 himself for an opening statement.

Today's hearing is focused on the critical topic of finding long-term solutions to prevent future drug shortages of key drugs for patients.

For months, cancer patients, including pediatric cancer patients, have had to scramble to find the drugs recommended or use alternatives because of instability in the markets and supply chains. In 2022 alone there are over _ there were 301 drugs in active shortages, according to the University of Utah.

For over a decade, professionals in the medical and 48 regulatory community have sounded the alarm on the underlying 49 economic causes of drug shortages. Unforeseen circumstances, 50 like a tornado hitting a pharmaceutical warehouse in North 51 Carolina or a manufacturing facility in India shutting down 52 due to quality concerns, can throw a supply chain out of 53 whack and potentially lead to a shortage of vital drugs. 54 To ensure we are prepared to respond appropriately to 55 56 these issues, we must encourage strong investments to ensure

57 that there are multiple means to develop, store, and 58 distribute drugs. That is why the Energy and Commerce 59 Committee is continuing extensive work to identify the 60 drivers of what can cause the supply chain to be unstable and 61 lead to the shortages we have seen over the last decade.

This Congress alone, we have held an oversight hearing, 62 heard testimony on shortages at a PAPHA hearing, the chair 63 did a request for proposals, all leading to the hearing today 64 on potential solutions that span numerous Federal agencies 65 and players. Through this work a key theme emerged: 66 the fundamental economics of the generic drug market 67 specifically, sterile injectable drugs must be reformed if 68 we want a more stable pipeline of drugs, including sustained 69 investments in domestic manufacturing. 70

Earlier this year the New York Times wrote in an article diving into the complex supply chain for generic drugs that, "There is a high cost to low prices.'' From there, the article dives into the frailty of supply chains that operate at low cost, with these low costs often times being driven by artificially deflated prices from government programs like certain Medicare or Medicaid policies. Even Commissioner

78 Califf agrees economics are the main driver, which he 79 publicly shared before this committee during a previous 80 hearing.

That is why today we will be considering a discussion draft from Chair Rodgers that aims to improve the systematic market failures of our drug supply chain. This discussion draft includes proposals to reform reimbursement rates for low cost drugs and include new ideas to ensure that FDA is appropriately prioritizing and using regulatory discretion to help get more low-cost generics to the market sooner.

It is also important to note that this is only a discussion draft, and I certainly expect there to be a healthy discussion among all members today on this draft and other proposals to address the issue of supply chains and shortages.

93 We are also continuing to actively solicit stakeholder 94 feedback, given the complexities of the supply chain.

It is my hope, nonetheless, that after we have had our robust discussion, that we will be able to find common-sense, bipartisan solutions to shore up our generic drug market. Doing so will keep Americans healthy and protect our national

99	security by making us less dependent on adversarial nations
100	for medical needs in the event of future unforeseen natural
101	disasters.
102	I look forward to the discussion today and our continued
103	work to advance long-term policies designed to address this
104	critical issue.
105	[The prepared statement of Mr. Guthrie follows:]
106	
107	*******COMMITTEE INSERT*******
108	

*Mr. Guthrie. Thank you, and I will yield back.
The chair now recognizes the gentlelady from California,
the ranking member of the subcommittee, Chair _ Ranking
Member Eshoo, for five minutes for an opening statement.
*Ms. Eshoo. Thank you, Mr. Chairman, and good morning,
colleagues and witnesses.

Today is an important day. After months of pleading by 115 the Democratic members of this subcommittee, we are finally 116 having a legislative hearing on drug shortages in our 117 country. I have been frustrated by our subcommittee's 118 inaction through the spring and summer, as I heard from so 119 120 many physicians in my congressional district and read about cancer patients, especially children, left behind due to 121 shortages in lifesaving treatments. 122

A quick scan of the headlines demonstrate the magnitude of the shortages. The New York Times in June: "How the Shortage of a \$15 Cancer Drug is Upending Treatment.'' The Wall Street Journal in June: "They Got Cancer, Then Their Drugs Were Rationed.'' STAT in July: "Cancer Drug Shortages Deliver Gut Punch to Patients Unsure if their Survival Odds Will be Undercut.''

The Food and Drug Administration reports that more than 130 drugs are currently in shortage. A July survey by the 132 American Society of Pharmacy Professionals found that over 133 half of the respondents said shortages of chemotherapy drugs 134 were "critically impactful.''

Long-term structural factors cause drug shortages, including high concentration among manufacturers, swings in consumer demand, complex manufacturing processes, and mismatched pricing. Today we will discuss five proposals that attempt to address this crisis.

First, my Drug Origin Transparency Act addresses manufacturer concentration by providing the FDA with the information they have repeatedly said they need to identify where critical drugs and active pharmaceutical ingredients are made to prevent shortages.

145 Second, the Bipartisan Drug Shortage Prevention Act by 146 Representative Sara Jacobs of California, requires 147 manufacturers to inform the FDA if there is a sustained 148 increase in demand for a drug or ingredient.

Next, the Ensuring Access to Lifesaving Drugs by
 Representative Slotkin of Michigan and the Patient Access to

Urgent-Use Pharmacy Compounding Act by Representative Morgan Griffith of Virginia attempt to mitigate shortages by allowing drugs to be safely used after their expiration date, or through pharmacy compounding.

Finally, we are considering Chairwoman Rodgers's long-155 awaited proposal, the Stop Drug Shortages Act. This 156 subcommittee delayed action on the drug shortage crisis 157 during the spring and summer with the promise of legislation 158 159 that comprehensively addresses the issue. But I believe that this proposal mostly studies the problem with more reports. 160 Where the proposal has actionable policy, I think it is 161 162 a grab bag of talking points. It weakens the 340B program and chips away at the Inflation Reduction Act by excluding 163 certain manufacturers from the inflation rebate. The 164 proposed inflation rebate policy misunderstands the market 165 failure that caused drug shortages. Many of the chemotherapy 166 shortages were caused by manufacturers choosing to drop their 167 prices in an unsustainable attempt to gain market share. 168

169 So I look forward to working with my colleagues to 170 ensure that any final package to address drug shortages 171 contains policies like my Pediatric Cancer Drug Supply Act of

 establishes a program at HHS to create a long-term contract for the manufacturing of essential pediatric cancer drugs ensure there is a consistent, six-month supply available. I look forward to finding a bipartisan way to craft a proposal that thoroughly addresses the threat that drug shortages pose to our nation and its patients. [The prepared statement of Ms. Eshoo follows:] 	ice in the coming days. This bill
ensure there is a consistent, six-month supply available. I look forward to finding a bipartisan way to craft a proposal that thoroughly addresses the threat that drug shortages pose to our nation and its patients.	HS to create a long-term contract
I look forward to finding a bipartisan way to craft a proposal that thoroughly addresses the threat that drug shortages pose to our nation and its patients.	essential pediatric cancer drugs to
177 proposal that thoroughly addresses the threat that drug 178 shortages pose to our nation and its patients.	ent, six-month supply available.
178 shortages pose to our nation and its patients.	ding a bipartisan way to craft a
	ddresses the threat that drug
179 [The prepared statement of Ms. Eshoo follows:]	on and its patients.
	ent of Ms. Eshoo follows:]
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181 ********COMMITTEE INSERT********	****
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*Ms. Eshoo. And with that, Mr. Chairman, I yield back. 183 *Mr. Guthrie. Thank you. The gentlelady yields back. 184 The chair now recognizes the chair of the full committee, 185 186 Chair Rodgers, for five minutes for her opening statement. *The Chair. Good morning, everyone. Good morning, 187 colleagues, witnesses. Thank you, everyone, for being here 188 to address bipartisan solutions to a long-term, decades-long 189 challenge around drug shortages. 190

191 We have all heard the heartbreaking stories about children and others that are struggling to get the medication 192 that they need as a result of drug shortages. I visited 193 Providence Sacred Heart Medical Center, including pediatric 194 oncology in their children's hospital in Spokane over the 195 August break, and heard firsthand how shortages are resulting 196 in difficult decisions to conserve and prioritize supply, 197 reevaluate treatment plans for some patients, and identify 198 alternative therapeutics when possible. 199

The task before us today is to examine the drug supply chain and try to better understand the root causes of drug shortages so our health care providers and the patients that rely on them are not having to change recommended treatments

204 due to a lack of supply.

I appreciate the witnesses from across the drug supply chain being here today to help us better understand the problem and provide feedback on the proposed solutions and any new ideas the committee should consider.

Over the last year, Energy and Commerce has committed itself to examining drug shortages that hit a 10-year high earlier this year.

May 11 of this year, the Oversight and Investigations Subcommittee held a hearing where a panel of expert witnesses testified to the underlying market failures that have made it harder for patients and health care providers to get essential medicines.

In June of this year I issued a request for information 217 alongside Senator Crapo to additional stakeholders regarding 218 drug shortages. The robust comments we received highlighted 219 the complex challenges facing low-cost generic drugs, which 220 make up more than 90 percent of the drugs dispensed in this 221 country. Stakeholders submitted comments regarding the 222 consequences of consolidation in the drug supply chain, and 223 how below-market Federal reimbursements for such drugs can 224

make it difficult _ a difficult market even worse, leading to a lack of investment in manufacturing and supply chains. Less than a month later I released a discussion draft to try to put specific solutions forward to address these broad concerns.

Our goal today is to pursue multifaceted and long-term solutions that address the root causes of the shortages. Again, we are hearing from people from across the supply chain to examine this issue.

According to FDA Commissioner Califf, "The economics of this are not favorable for fixing the problem the way it is currently working.''

This committee has a chance to improve the economics for these drugs, potentially facilitating more onshoring and making sure patients have access to the drugs that they need. The challenge is how to appropriately target the incentives and relief from existing government price controls. And I hope there will be a robust discussion on how best to do that.

The discussion draft focuses primarily on generic, sterile, and injectable drugs for a serious disease or

condition, and getting these drugs out from under mandatory 340B rebates and inflation penalties. We require CMS to launch a model that tests market-based pricing policies for these drugs in Medicare, as well.

The discussion draft also looks into how we can bring transparency to current contracting practices through new 340B guidance and disclosure reporting for group purchasing organizations.

FDA plays a role, as provisions in the discussion draft and other bills noticed today indicate. However, I do not believe FDA authorities would solve these issues and, in some cases, I think FDA may play a role in worsening a shortage through unclear communication.

I am also concerned FDA may not look domestically for production before turning outside the U.S. during a drug shortage.

I look forward to a robust, constructive dialogue about the policies noticed today and any potential unintended consequences, any additional ideas, and I am hopeful that we can work together in this committee to come together on a number of discreet proposals to tackle and turn the tide

267	against these drug shortages.
268	It is clear that each shortage is unique, and there is
269	not one solution that will address all issues.
270	[The prepared statement of The Chair follows:]
271	
272	********COMMITTEE INSERT********
273	

*The Chair. Thank you. I will yield back.
*Mr. Guthrie. Thank you. The chair yields back, and
the chair will recognize the ranking member of the full
committee, Mr. Pallone, for five minutes for an opening
statement.

Mr. Pallone. Thank you, Mr. Chairman. I am pleased that after months of refusing to work with Democrats to address the drug shortage crisis, the Republican majority has finally called a hearing to discuss legislative proposals to address this serious ongoing problem for patients.

Democrats put forward three of the bills noticed for discussion in the hearing today during consideration of the Pandemic and All-Hazards Preparedness Act, or PAHPA. We wanted to immediately act because experts, including doctors providing care on the front line, told us drug shortages are an ongoing emergency for their patients and a threat to national security.

They also told us that the Democratic bills could help address the crisis patients are facing by providing new authorities to the Food and Drug Administration.

294 Unfortunately, Republicans refused to work with us to include

these policies in the PAHPA reauthorization, and instead pursued a Republican-only bill that slashed health preparedness funding and will have difficulty passing the House before PAHPA expires at the end of this month.
After our nation was "unprepared for the worst pandemic in a century,'' and it is inexcusable that Republicans have

failed to learn the lessons of COVID-19, and have refused to properly invest in public health preparedness. This failure is putting American lives at risk.

And then, just after gaveling out of session for the August recess, Republicans finally put forward their ideas to address drug shortages. Unfortunately, many of the proposals in the Republican discussion draft may actually lead to more drug shortages and increased profits for the pharmaceutical industry, while raising costs for consumers.

I oppose many of the policies in the Republican discussion draft because I simply do not believe they will help end the drug shortage crisis. In fact, I think they will make it worse. And that is not the approach Democrats want to take. Over the last month we have been highlighting our efforts to expand the middle class, including by making

316 drugs more affordable under the Inflation Reduction Act. For the first time, the Inflation Reduction Act allows 317 Medicare to negotiate the prices of drugs for seniors, 318 319 institutes a \$2,000 cap on out-of-pocket costs for drugs in Medicare Part D, and prevents huge price increases by 320 requiring drug companies to pay a rebate back to the 321 government if they raise drug prices faster than the rate of 322 inflation. 323

Every Republican voted against lowering drug prices, and now they are trying to eat away at the consumer protections that Democrats created. The Republican discussion draft would allow some drug companies to raise prices on consumers faster than the rate of inflation without paying a penalty to Medicare or Medicaid.

I am deeply concerned that this proposal could unintentionally provide an incentive for drug companies to keep drugs in shortage or near shortage for longer periods of time in order to raise drug prices on the American people. And while it is true that market conditions affect manufacturing and supply issues, two major causes of the drug shortage crisis, the Republican proposal to simply allow drug

337 companies to raise prices is not the answer to the problem. In stark contrast to some of the misquided policies in 338 the Republican discussion draft, the Democratic bills before 339 340 us today are common sense, and take significant steps towards better securing our supply chain. We should know where our 341 drugs and their critical ingredients are being made so when a 342 drug shortage or other supply interruption happens, FDA and 343 manufacturers can react appropriately. 344

Ranking Member Eshoo's legislation, the Drug Origin Transparency Act, would require drug companies to report the sources of active pharmaceutical ingredients to FDA, and includes the source of API on a drug's label.

We should also be ensuring that FDA knows that _ the earliest possible time when a surge in demand for a drug is likely to cause a shortage. And that is exactly what the bipartisan bill introduced by Representative Jacobs and Mills will do.

And we should make sure that we are not needlessly throwing away safe and effective drugs that could be used past their shelf life date. Representative Slotkin's bill, the Ensuring Access to Lifesaving Drugs Act, will help

358	address that by requiring manufacturers to report to FDA on
359	the longest possible shelf life of their drugs.
360	So I am interested in hearing more from our panel, and I
361	am hopeful that we can find a bipartisan path forward on
362	these drug shortage policies, as patients and providers are
363	facing life-altering consequences if we don't do more to
364	address this critical problem.
365	[The prepared statement of Mr. Pallone follows:]
366	
367	********COMMITTEE INSERT********
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369	*Mr. Pallone. And with that, Mr. Chairman, I yield
370	back.
371	*Mr. Guthrie. Thank you. The gentleman yields back.
372	We will now move to witnesses' opening statements.
373	I will introduce each witness, and then we will call on
374	you individually. I will introduce the witness as a $_$
375	witnesses as a panel.
376	And so first before us is Michael Ganio. He is senior
377	director of pharmacy practice and quality for the American
378	Society of Pharmacy Professionals.
379	Mr. Todd Ebert, president and CEO of Health Care Supply
380	Chain Association.
381	Mr. Chip Davis, president and CEO of Health Care
382	Distribution Alliance.
383	Dr. Melissa Barber, post-doctoral fellow at the Yale
384	School of Medicine, Yale Law School and Yale Collaboration
385	for Regulatory Rigor, Integrity and Transparency.
386	Mr. Allan Coukell, senior vice president of public
387	policy for Civica.
388	And Dr. David Gaugh, interim president and CEO at the
389	Association for Accessible Medicines.
	21

And so each of you will have five minutes for your 390 opening statement. You will I think you have some of you 391 have testified before. You will have a yellow light when you 392 393 get close to the end. I think four minutes in you will have a yellow light. And then when the red light, we would ask 394 you to wrap up if you haven't finished, get to your final 395 thoughts, and then we will get to questions so we can have 396 some discussion and talk. 397 398 And we appreciate it, and first I will recognize Dr.

399 Ganio for five minutes for your opening statement.

400

401	STATEMENTS OF MICHAEL GANIO, PHARM.D., M.S., BCSCP, FASHP,
402	SENIOR DIRECTOR, PHARMACY PRACTICE AND QUALITY, AMERICAN
403	SOCIETY OF HEALTH SYSTEM PHARMACISTS (ASHP); TODD EBERT,
404	R.PH., PRESIDENT AND CEO, HEALTHCARE SUPPLY CHAIN ASSOCIATION
405	(HSCA); CHESTER "CHIP'' DAVIS, JR., JD, PRESIDENT AND CHIEF
406	EXECUTIVE OFFICER, HEALTHCARE DISTRIBUTION ALLIANCE (HDA);
407	MELISSA BARBER, POSTDOCTORAL FELLOW AT THE YALE SCHOOL OF
408	MEDICINE, YALE LAW SCHOOL, AND YALE COLLABORATION FOR
409	REGULATORY RIGOR, INTEGRITY, AND TRANSPARENCY (CRRIT); ALLAN
410	COUKELL, BSCPHARM, SENIOR VICE PRESIDENT, PUBLIC POLICY,
411	CIVICA; AND DAVID GAUGH, R.PH., INTERIM PRESIDENT AND CEO,
412	ASSOCIATION FOR ACCESSIBLE MEDICINES (AAM)
413	
414	STATEMENT OF MICHAEL GANIO
415	
416	*Dr. Ganio. Thank you, Chair Guthrie, Ranking Member
417	Eshoo, and distinguished members of the Health Subcommittee.
418	Thank you for the invitation to join today's hearing.
419	The American Society of Health System Pharmacists is the
420	largest association of pharmacy professionals in the United
421	States. Our 60,000 members, pharmacists, student

422 pharmacists, and pharmacy technicians are on the front lines, managing drug shortages in hospitals, ambulatory clinics, 423 community pharmacies, and other health care settings. 424 425 ASHP has monitored national drug shortages for over two decades. We collect public reports of drug shortages from 426 clinicians, patients, and caregivers. And through a 427 partnership with the University of Utah Drug Information 428 Service, ASHP maintains a drug shortages list that includes 429 430 both active and resolved prescription drug shortages. Shortages are added to our database only after the team at 431 the University of Utah has thoroughly investigated each 432 433 shortage and confirmed details with manufacturers. We also provide practitioner-focused resources to help 434 the health care community manage drug shortages. 435 As of July 2023, ASHP and the University of Utah were 436 tracking 309 active ongoing drug shortages, the highest 437 number in nearly a decade. Most of these medications are 438 low-cost generics and many are sterile injectable products 439 used in clinical settings. We recently conducted a survey of 440 ASHP members, and found that 99 percent of our respondents 441 442 are struggling with drug shortages every day in hospitals and

443 health systems, with 57 percent reporting rationing chemotherapy drugs or canceling or delaying cancer treatment. 444 In recent years, the drug shortage problem has escalated 445 446 into a crisis that threatens our nation's health care security. Clinicians with less than 20 years of practice 447 experience have never known a world where drug shortages did 448 not exist. Basic critical medications like sterile water, 449 saline, and other electrolytes are chronically in short 450 451 supply.

Clinical data show worse outcomes when patients are 452 switched to alternative treatments that are less effective or 453 454 have more side effects than the preferred drug. Medication errors attributed to drug shortages have resulted in patient 455 harm and even death. Shortages can also force clinicians to 456 make heartbreaking decisions about which patients receive a 457 prioritized to receive potentially lifesaving treatments and 458 which should receive an alternative. 459

And of course, the burden of managing shortages is not only on clinicians. Patients have faced frustrating shortages of prescription drugs like EpiPens, amoxicillin, and blood pressure medications. And currently, patients who

464 depend on ADHD medications are currently upending their lives 465 monthly as they look for their next prescription for the 466 following month.

467 The causes of drug shortages can range from raw material availability to natural disasters disrupting infrastructure. 468 Most often, however, shortages are caused by a manufacturing 469 delay or declines in manufacturing quality. And the root 470 causes behind these declines come from a lack of incentive to 471 produce older generic drugs with slim profit margins and from 472 a lack of market recognition of manufacturers who invest in 473 more reliable supply chains and better quality systems. 474 475 The current shortage of some injectable chemotherapy drugs was caused by deficiencies in guality manufacturing at 476 an overseas facility. However, these problems are not 477 limited to foreign manufacturing sites. In 2018 478 manufacturing deficiencies at a domestic facility resulted in 479 severe shortage of injectable opioid medications that we use 480 in hospitals to treat pain and to sedate patients in 481

482 intensive care units.

The current system of FDA approval and pass-fail inspections does not provide purchasers with any distinction

among drug products, other than price. This overly 485 emphasizes the cost of drugs in purchasing decisions and 486 contributes to the race to the bottom in generic drug prices. 487 488 Because purchasers do not have a way to identify manufacturers with strong quality systems, there is no 489 financial incentive for manufacturers to invest in quality 490 management. Providing transparency through a reporting of 491 critical information will allow purchasers to select from 492 493 reliable sources of generic drugs.

ASHP supports efforts to expand domestic manufacturing, 494 but this will not reduce shortages if it comes at the expense 495 of reliable foreign suppliers. Manufacturing diversity and 496 redundancy are needed to strengthen our supply chain and 497 prevent drug shortages. Without diversity of production, a 498 disruption either domestically or abroad can result in severe 499 shortages, as we have seen recently with Hurricane Maria's 500 impact on Puerto Rico in 2017, and most recently a tornado 501 that recently hit Pfizer's North Carolina facility, damaging 502 40,000 pallets of finished materials. 503

ASHP has developed and published detailed recommendations to reduce drug shortages that will be

506	submitted for the record. The current status of drug
507	shortages is untenable, and we look forward to working with
508	this subcommittee and with Congress and other policymakers on
509	implementing solutions to solve the problem. Thank you.
510	[The prepared statement of Dr. Ganio follows:]
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512	********COMMITTEE INSERT********
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*Mr. Guthrie. Thank you. We thank you for your
testimony.
The chair now recognizes Mr. Ebert for five minutes for
your opening statement.
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519 STATEMENT OF TODD EBERT

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*Mr. Ebert. Good morning, Chairman Guthrie, Ranking 521 522 Member Eshoo, and distinguished members of the subcommittee. Thank you for the opportunity to discuss the important role 523 of traditional health care group purchasing organizations in 524 preventing and mitigating drug shortages. We appreciate your 525 efforts to examine this pressing problem, and we look forward 526 to continuing to work with Congress and all stakeholders to 527 preserve patient access to high-quality care. 528

I have 44 years of experience as a registered 529 530 pharmacist, and I have seen firsthand the impact of drug shortages on patients and their families. As a former CEO of 531 a national GPO, and now as the head of the Healthcare Supply 532 Chain Association, I have also witnessed the great work that 533 healthcare GPOs do to mitigate and prevent drug shortages so 534 that patients have timely and reliable access to the 535 medications they need. 536

537 GPOs serve as the sourcing and contracting partners to 538 hospitals and long-term care facilities, surgery centers, 539 clinics, and other health care providers throughout the

540 country. GPOs lower costs for patients, providers, Medicare, 541 Medicaid, and taxpayers. GPOs allow health care providers 542 and physicians to focus on their core mission, which is 543 providing first-class patient care.

GPOs are voluntary, flexible, and clinically driven. Importantly, GPOs take a comprehensive approach to sourcing and contracting that not only accounts for the competitive price offered by suppliers, but also the quality,

reliability, and the stability of supply.

We recognize that market conditions change. When they 549 do, GPOs work with suppliers to adjust contracts. GPOs also 550 551 work to expand the overall number of suppliers, including encouraging new manufacturers to enter the market. GPOs 552 create a vigorously competitive market, both among GPOs and 553 suppliers. Many health care providers maintain membership 554 with more than one GPO at a time, and can shift their 555 purchasing from one GPO contract portfolio to another, or 556 purchase outside-a-GPO contract altogether. 557

558 We appreciate the subcommittee's interest in increasing 559 transparency across the supply chain. GPOs already adhere to 560 robust transparency and reporting requirements by GPOs to

561 their members and, upon request, to the government. As the GPO as the committee has noted, drug shortages 562 place a significant strain on hospitals, health systems, 563 564 health care providers, and their patients. The FDA identifies manufacturing quality control issues as the 565 primary cause of drug shortages, along with production 566 delays, lack of raw materials, and supplier business 567 decisions to discontinue product. 568

569 Drug shortages are antithetical to the GPO business 570 model. Without sufficient product or suppliers, GPOs are 571 unable to provide the services. HSCA and its member GPOs are 572 committed to collaborating with health care providers and 573 suppliers to bolster the resiliency of the health care supply 574 chain and to ensure that patients and providers have reliable 575 access to the drugs, products, and services they need.

HSCA and our member GPOs appreciate the full committee chair's recognition of the important role of 503B compounding facilities, which are crucial for acute and non-acute health care providers. We strongly support increasing flexibility for 503B compounders to mitigate and prevent drug shortages. We are concerned about sections 305 and 401 of the Stop

582 Drug Shortages Act discussion draft. These provisions will 583 add significant administrative burden facing America's health 584 care providers and exacerbate access challenges for crucial 585 medicines, particularly among small and rural hospitals, 586 without addressing the drug shortage crisis.

In addition, we are concerned that section 307 will change the ASP definition and discourage suppliers from working with GPOs. We respectfully ask that these three provisions be removed.

591 Solving the drug shortage crisis is a complex task. We 592 have submitted a number of substantive recommendations that 593 will help prevent and mitigate drug shortages, several of 594 which build upon existing congressional authorities. Those 595 recommendations are included in our written testimony.

We appreciate the opportunity to provide our comments, and appreciate this subcommittee's willingness to learn about the GPO industry and how we work, and how we work to prevent and mitigate drug shortages. We look forward to continuing to serve as a resource to Congress and all stakeholders, and I look forward to answering any questions that you may have. Thank you.

603	[The prepared statement of Mr. Ebert follows:]
604	
605	*********COMMITTEE INSERT********
606	

607	*Mr. Guthrie. Thank you. The gentleman yields back,
608	and the chair now recognizes Mr. Davis for five minutes for
609	opening statement.
610	

611 STATEMENT OF CHESTER "CHIP'' DAVIS, JR. 612 *Mr. Davis. Good morning, Chairman Guthrie, Ranking 613 614 Member Eshoo, full committee Chair Rodgers, and full committee Ranking Member Pallone, as well as all esteemed 615 members of the committee. My name is Chip Davis. I am the 616 president and CEO of the Healthcare Distribution Alliance. 617 And on behalf of HDA and our members, we thank you for the 618 opportunity to share the pharmaceutical distribution 619 industry's perspective on this important issue of drug 620 621 shortages. 622 Let me begin by applauding the efforts of this committee to examine this issue. We agree that drug shortages deserve 623 attention, and support changes that allow us to preserve the 624 strength and efficiency of the pharmaceutical supply chain 625

626 while simultaneously tackling this issue.

As a result of that, our comments today will focus in the following areas: first, the role and value of the pharmaceutical distribution industry; second, the role of distributors in mitigating and managing drug shortages; and third, our takeaways from the committee's discussion draft

632 that has been referenced that was shared last month. Distributors truly are the backbone of the 633 pharmaceutical supply chain. We handle approximately 94 634 635 percent of medicines that are dispensed in the United States. Our members find the safest and the most efficient ways to 636 get products to where patients need them. Our members work 637 every day to connect approximately 1,400 manufacturers to 638 over 300,000 sites of care on a daily basis, and sometimes 639 640 multiple times per day. Our members are logistics experts that deliver over 11 million products on a daily basis, and 641 they do it while maintaining a 0.6 percent net profit margin 642 643 after taxes.

Distributors demonstrated their full capabilities during 644 the COVID-19 pandemic by distributing vaccines and 645 therapeutics, as well as expanding capacity to support 646 specialized requests and partnering with our critical 647 partners in pharmacy and hospital customers as they 648 prioritized patient need. All distributors stepped up to 649 serve patients, our communities, and our country by working 650 collaboratively to ensure the safe and efficient distribution 651 652 of critical medicines and supplies.

Simply put, drug shortages occur because the available supply does not meet demand. We align with the FDA's definition of a drug shortage _ we know there is multiple definitions out there _ which the FDA defines as a period when the demand or projected demand of all versions of a commercially available drug exceeds the supply.

Due to our unique vantage point in the supply chain, 659 with upstream partners and downstream partner providers, we 660 661 see the issue of drug shortages as highly nuanced, categorized by both supply-driven and demand-driven 662 shortages. Unfortunately, there is no single solution that 663 664 will resolve or prevent drug shortages. Supply-driven shortages occur due to upstream disruptions, while demand-665 driven shortages are caused by sudden medical surges in which 666 demand outpaces supply. 667

Distributors support overall supply chain resiliency as a strategy to manage supply chain shocks without significant disruption to patient care. When considering a supplier, distributors consider supplier reliability, quality, historical patterns, and business practices in addition to cost. When shortages occur, distributors employ multiple

674 systems to mitigate the disruption and equitably distribute products. Demand forecasting and constant monitoring of 675 supply help our members maintain inventory to meet demand. 676 677 When prolonged shortages occur, distributors look for alternative sources. And if demand outpaces supply, 678 distributors employ what we refer to as fair share allocation 679 programs to ensure that all downstream customers have 680 equitable access to whatever product is available. 681 682 While drug shortages continue to strain the supply chain, there is also a countervailing pressure, as this 683 committee knows, to constantly reduce costs. The discussion 684 draft includes thoughtful policies to address supply chain 685 686 shortages.

We support recommendations that encourage competition and supply chain continuity, and to avoid the potential to worsen existing shortages.

We support the proposed Medicaid drug rebate program rebate cap for specified generic drugs, and we encourage CMS to give preferred formulary position to new generics and biosimilars when they enter the market.

We also support the proposal to enhance domestic

695 production and provide incentives for U.S.-based 696 manufacturers to address challenges such as continuing 697 manufacturing.

There are multiple positive policy recommendations in the discussion draft. However, there is a provision regarding the narrowing of bona fide service fees that Mr. Ebert referred to that we also believe would have unintended consequences, and could actually unintentionally exacerbate existing shortages.

The bona fide service fees that manufacturers pay 704 distributors actually underwrite the physical movement 705 706 through the supply chain of the products. These fees cover services such as the safe and secure storage and handling of 707 products; costs associated with cold chain and ultra cold 708 chain storage and delivery; automated inventory management 709 systems to process orders, and select and package shipments; 710 to document and report requirements for regulatory agencies 711 712 such as the FDA; and the cost of transporting more than 11 million products every day. Our members take on significant 713 risks on behalf of manufacturers, and that fee structure 714 715 allows them to perform these activities.

716	We applaud the committee for the admirable efforts to
717	address drug shortages, and I look forward to answering your
718	questions today. Thank you.
719	[The prepared statement of Mr. Davis follows:]
720	
721	********COMMITTEE INSERT********
722	

*Mr. Guthrie. Thank you, the gentleman yields back.
And the chair now recognizes Dr. Barber for five minutes
for your opening statement.

727 STATEMENT OF MELISSA BARBER

728

*Dr. Barber. Good morning. That is a bit better.
Chairman Guthrie, Ranking Member Eshoo, and members of the
subcommittee, thank you for the invitation to testify today.
My remarks reflect my own views and neither those of my
employer nor organizations with whom I work.

Drug shortages are a symptom of a deeper problem in drug markets. I will focus on three themes: first, we need better data to understand the problem; second, we need to address dysfunctional markets with targeted legislation that aligns market incentives with public health need; finally, solutions will require whole-of-government approach.

Today you will hear evidence from many stakeholders. Both here and in my written testimony I will endeavor to report to you as precisely and honestly as I can the evidence from the academic and policy literature on what drives shortages.

As someone who has studied these problems for many years, the first thing I want to emphasize is that there are deep cracks in the information ecology around pharmaceutical

748 production, and there is much we do not know because we don't 749 collect data.

Briefly, here is what we know about shortages: first, some types of products, particularly generic, sterile injectables, are in shortage more often than others; second, while any shortage is important to patients, not all shortages are equal in terms of public health importance; third, we know that markets for some products are highly concentrated.

A 2023 study found that approximately one-third of generic active pharmaceutical ingredients, or APIs, produced for use in U.S. markets were manufactured by a single facility. An additional third were manufactured by just two or three facilities.

762 But there is much that we don't know.

First, we don't even know the cause of most shortages that are reported. As of June 2023, 59 percent of reported shortages in the FDA's database did not have a declared cause because manufacturers are not obligated to give detailed information. Nor does the FDA audit data to ensure accuracy. Thus today, when we discuss the causes of shortages, we are

769 only discussing the half where we have data and we are 770 ignoring the half where we do not.

Second, we don't know how many manufacturers there are 771 772 globally for a given drug, where they are, or how much manufacturing capacity they have. This information is 773 critical to understanding which drugs are most at risk if, to 774 cite some recent examples, a tornado strikes a major 775 pharmaceutical plant in North Carolina, as it did in June 776 this year, or, as I focus on in my own research, when a 777 global pandemic like COVID-19 leads to a shock in production 778 capacity and interruption in global supply chains. 779

Given what we know about shortages, and with humility on what we don't know, I urge the subcommittee to carefully target legislation to reforms that address the root causes of shortages and not just increase costs.

Provisions in the proposed Stop Drug Shortages Act increase the prices paid for generic, sterile, injectable drugs and drugs in shortage by exempting them from inflationary rebates. There is little evidence that this will be effective. In fact, the FDA has previously found historical price increases have not addressed supply problems

for drugs in shortage. Rather, these provisions could create more problems than they solve by generating perverse incentives for those companies that have not made needed investments to improve manufacturing quality to nevertheless benefit from price increases that outpace inflation.

More targeted measures would be more effective. For example, case-by-case exemptions where there is clear evidence that supply shocks were the result of external events outside of company's control, rather than underinvestment in quality resilience, or by tying financial incentives to a rating system that conditions reimbursement on investments made in supply chain resilience.

Finally, there is no single silver bullet for addressing shortages. It will require coordination across many spheres of government. As a first step, the Agency Drug Shortages Task Force, previously launched by the FDA, should be reconvened as a single point of responsibility so, at the very least, Federal agencies can coordinate efforts.

808 Stepping back, at the core of this legislation is an 809 understanding that health policy is industrial policy, and 810 industrial policy is health policy. The United States is no

811 stranger to targeting subsidies as part of our industrial policy, especially where industries are seen as vital to 812 national security or the economy. The CHIPS Act provided \$39 813 814 billion in incentives to advance domestic research and manufacturing of semiconductors. Federal programs like the 815 Commodity Credit Corporation were established for 816 stabilizing, supporting, and protecting farm income and 817 prices. 818

So why have generic medicines not historically also been 819 seen as a strategic focus of our health and industrial 820 policy? Unlike other industries that policymakers have 821 deemed too important to fail, the prevailing wisdom guiding 822 generic drug policy has been that we should trust markets to 823 sort themselves out. We are at this hearing today because 824 this plan is not working for all medicines. Markets are in 825 such a state that I am testifying alongside a non-profit that 826 has had to step up to manufacture essential medicines. 827

Congress must pass a comprehensive set of targeted measures to address the market that has, for far too long, failed patients. This will require re-envisioning the intersection of health and industrial policy to effectively

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832 ensure access for medicines for all. Thank you.
833 [The prepared statement of Dr. Barber follows:]
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835 ********COMMITTEE INSERT********
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*Mr. Guthrie. Thank you. I appreciate your testimony.
Mr. Coukell, you are now recognized for five minutes for
your opening statement.

841 STATEMENT OF ALLAN COUKELL

842

*Mr. Coukell. Chairman Guthrie, Ranking Member Eshoo, and members of the committee, thank you for the opportunity to speak with you today on the pressing issue of drug shortages, and on policies to prevent them. My name is Allan Coukell. I am a pharmacist by training, and I lead public policy for Civica, also known as Civica Rx.

Civica is the only pharmaceutical company established specifically to address drug shortages. We are a non-profit, non-stock organization founded by a group of U.S. health systems and philanthropists who, after more than a decade of chronic drug shortages, recognized that the market is not self-correcting, and that a different approach is required.

Civica's mission is to deliver a safe, stable, and affordable supply of essential medicines to U.S. patients. In our first five years of operation, Civica's hospital membership has grown to 55 health systems, 1,500 hospitals. We deliver more than 80 drugs today, 140 million containers to date. And with U.S. Government support, we have just completed construction of a state-of-the-art injectable

862 manufacturing facility in Petersburg, Virginia.

The drugs that Civica delivers are not chosen for return on investment. They are chosen by hospitals because they are in shortage or at risk of shortage, tend to be old and lowcost but used in every hospital every day for the care of patients.

Because our mission is to prevent shortages, Civica 868 takes a different approach from the traditional generic drug 869 870 supply chain. For example, we enter long-term purchase and supply contracts that add stability to the market. We target 871 and maintain a six-month buffer inventory of every drug to 872 873 ensure continuity of supply. We also emphasize U.S. sourcing whenever possible, with the EU and Canada as our next 874 preference, and we don't source drugs from China, either 875 finished drugs are active ingredient, unless there is no 876 other source. 877

We perform an intensive quality audit of potential suppliers, along with ongoing review of key metrics to reduce the risk of a failure to supply. And every drug is sold at the same price to any purchaser. Our prices remain stable, and do not increase when the drug is in short supply.

The success of this model is demonstrated by the fact that 20 of our top 25 drugs are currently in national shortage, yet we are supplying our hospitals without interruption.

When a tornado recently hit a generic drug manufacturing plant in North Carolina, Civica had 21 products overlapping with drugs from that facility. We immediately let our member hospitals know that we could supply double their committed volume for every one of those drugs. And a peer reviewed analysis published today shows net cost savings associated with sourcing through Civica.

So what does this mean for policy? The resilience of this approach may point to Federal policy changes that could help us both respond to and prevent drug shortages.

And make no mistake, shortages now must be understood as a built-in and permanent outcome of the current system. Without change, shortages are likely to get worse in the years ahead.

901 The immediate cause of most shortages of sterile, 902 injectable drugs is quality problems in the manufacture of 903 the finished dosage form. The root cause is widely

904 acknowledged to be low prices, with a vial of medicine often costing much less than a cup of coffee. This reduces the 905 incentive and the ability for manufacturers to invest in 906 907 quality or in newer manufacturing facilities, and low prices push production offshore to low-wage markets, where quality 908 problems proliferate and the FDA presence is less consistent. 909 Finally, pharmaceutical production takes time to ramp 910 up, meaning that when one manufacturer leaves the market, a 911 912 shortage is likely, even if there are other manufacturers

913 making the same drug.

So policy responses to reduce shortages should include measures to incentivize buffer inventory to ensure that generic, sterile, injectable drugs are priced sustainably.

917 We also need to create market demand for manufacturers 918 that are less likely to have quality problems and to support 919 domestic manufacturing.

My written testimony addresses a range of policy options in detail, but one that I would like to highlight is that Congress could have ASPR make a targeted investment to ensure that high-quality U.S. manufacturers have generic drugs already developed and approved by the FDA ready to go into

925	production as soon as a shortage starts. This concept,
926	called ANDAs at the Ready, is discussed in more detail in my
927	written testimony, and would be a cost-effective mechanism to
928	create reserve U.S. manufacturing capacity.
929	Thank you again for your attention to this important
930	topic, and for the opportunity to be here, and I welcome your
931	questions.
932	[The prepared statement of Mr. Coukell follows:]
933	
934	*********COMMITTEE INSERT********
935	

936	*Mr. Guthrie. Thank you, I appreciate your testimony.
937	And Mr. Gaugh, you are now recognized for five minutes.
938	

939 STATEMENT OF DAVID GAUGH

940

941 *Mr. Gaugh. Thank you, Chairman Guthrie, Ranking Member 942 Eshoo, and Chair Rodgers, and Ranking Member Pallone, and 943 members of the subcommittee. I want to thank you for this 944 invitation to testify today.

AAM represents the manufacturers of finished generic and 945 biosimilar pharmaceutical products, and works to expand 946 947 patient access to safe, quality, and effective generic and biosimilar medicines. Generic medicines make more than 9 out 948 of every 10 prescriptions. Generics and biosimilars provide 949 enormous cost savings in fact, \$408 billion in 2022 alone. 950 But these savings are at risk. We face significant 951 threat to the long-term sustainability of this industry, 952 along with potential for future drug shortages unless 953 Congress acts to address these issues today. Business 954 practices by middlemen such as GPOs, wholesalers, PBMs, and 955 health plans are disrupting the economic sustainability of 956 generic manufacturing, shrinking product portfolios, and 957 reducing the availability of resources to counter drug 958 shortages. 959

960 Specifically, these factors include impact of high generic drug deflation and supply chain consolidation. A 961 historically high rate of price deflation has been driven by 962 963 the consolidation among generic buying organizations. Three GPOs control roughly 90 percent of all generic purchases for 964 hospitals and clinics. As hospitals across the United States 965 seek to remain profitable and look for savings, directors of 966 pharmacies turn to the GPOs for the lower purchase prices. 967 968 In the retail market, three distributor retail pharmacy purchasing consortiums control 90 percent of the retail 969 prescription market. As such, fewer buyers mean fewer 970 971 markets for the more than 200 generic drug manufacturers. And I might point out that, of the FDA approvals, every 972 approval for an ANDA 60 percent of those approved never 973 make it to the market because there is no market to make it 974 975 to.

And the constant downward pressure created by the harmful, most-favored-nation contract terms imposed by purchasers can result in unrealistically low prices. This unchecked consolidation and vertical integration has created an unsustainable take-it-or-leave-it market for many of the

981 lowest-cost generic medicines with one-sided terms, maximum 982 downward pricing pressures, but no certainty on the price or 983 the volume that you will get to sell.

984 To help ensure sustainability for the generic market, we believe Congress, FDA, and CMS can update the generic drug 985 Medicaid inflation penalty to allow with inflation penalty 986 included in the Inflation Reduction Act, expand the drug 987 shortage exemption of the Inflation Reduction Act, speed new 988 989 generics to market through legislation that enables generic manufacturers to receive key quantitative and qualitative 990 formulation information from the FDA, ensure that Medicare 991 drug plans cover and encourage the use of new generic and 992 biosimilars, amend the 340B program to exempt low-cost 993 generics, or adjust the ceiling price required of generics, 994 empower the FDA drug shortage staff to engage with the Office 995 of Regulatory Affairs and the Office of Compliance during the 996 inspection, planning, and the debrief process, improve 997 transparency regarding the status of applications and 998 inspections, enhance the expedited inspection resolution 999 pathway, review shelf life extension programs for products in 1000 critical supply and/or in shortage, and streamline regulatory 1001

1002 processes to expedite facility review.

Lastly, I would like to say that I have seen this issue at nearly every stage. I am a registered pharmacist, I have been a hospital system director of pharmacy, I have been a GPO director of contracting, and I have led a business for the generic manufacturers. Thus, I fully am aware of the multifaceted front affecting and with responsibility for many entities in the supply chain.

AAM remains committed to working with policymakers, patients, and this committee, and other health care professionals to provide effective _ address _ provide effectively to address the challenges required to improve sustainability of the generic drug industry and ensure patients' savings and access.

1016 Thank you very much, and I will be happy to answer any 1017 questions.

1018 [The prepared statement of Mr. Gaugh follows:]

1019

1020 ********COMMITTEE INSERT********

1021

Mr. Guthrie. Thank you. The gentleman yields back.
That concludes our witness testimony, and will now begin
questioning, and I will recognize myself for five minutes to
begin questioning.

1026 So thanks for you all being here, and thank you for your 1027 testimony.

My good friend, the ranking member, talked about cheaper 1028 drugs and cheaper drug prices. And we are not here to we 1029 all want cheaper drug prices, but we also want access to the 1030 drugs that are needed. If the price of the drug is below 1031 1032 what creates a supply that is below the demand, that leads to rationing. We have had people I think my friend, Dr. 1033 Bucshon, talked about his friends in the medical community 1034 choosing to ration child cancer treatment. So this is 1035 serious for us to be here, and we are not trying to one-up 1036 each other politically. We are trying to get to an answer to 1037 how we solve this problem because it is real. 1038

And then we have had some comments and _ on provisions of the bill that creates burdens and some other things moving forward. You know, we wouldn't be here if your system was working. The system is not working. We it is not just

1043 and I referenced the tornado in North Carolina in my opening statement, and we know we have had hurricanes in Puerto Rico, 1044 but this is a systemic problem. And that is just it is 1045 1046 just failing. It is just failing to address the problem. And we need to shape we need to address where the 1047 government is involved in this, and has the issues creating 1048 the lower prices that aren't created in the marketplace. 1049 And so Mr. Gaugh, we talked about drug shortages in 1050 terms of the supply, as I have just talked about. To better 1051 understand this dynamic and we are the government 1052 reimbursement creates challenges would you specifically 1053 1054 talk about how the average sales price calculations affect the shortage? 1055 *Mr. Gaugh. So thanks for the question, and a very 1056 complicated question with a very, very long answer. 1057 So as you look across the entire spectrum of whether you 1058 are talking about the sale to a distributor, or through the 1059 GPO, or through the retail structure, it is different in each 1060

1061 and every one of those.

1062 And so what I would ask is that I be able to come back 1063 to this committee in writing with a schematic, really, that

1064	drives through all these issues that are out there, because
1065	not one pricing issue _ you can't fix all pricing issues with
1066	one solution. There just isn't one that is out there.
1067	*Mr. Guthrie. Okay. Well, thank you for that. And we
1068	look forward to your response back.
1069	
1070	
1071	
1072	[The information follows:]
1073	
1074	********COMMITTEE INSERT********
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1076 *Mr. Guthrie. We have seen that a lot of people are leaving the marketplace. I know when I am in with the 1077 supply chain in the automotive world, and if I contracted to 1078 1079 an OEM or an automotive producer to give them a product at the price I am willing to pay for it, and I got to buy 1080 product to go into my product to sell to them, then I am just 1081 not obligated to give them the cheap price. I am obligated 1082 to deliver the product. And it seems like we are having 1083 people that are contracting to deliver a product on a _ on _ 1084 based on a price, or negotiating a price that is not 1085 1086 presenting the product. That is just, from a supply chain 1087 background, is what I see with this.

I know on the so with the wholesalers, Mr. Davis, I 1088 know we have had some feedback already on some of the 1089 processes and the bona fide service fee. Can you clarify? I 1090 know you addressed a little bit about some concerns that you 1091 have with the provision. Like I said, this is a discussion 1092 and we are trying to solve the problem, and we are interested 1093 in what your clarify your concern about moving forward, and 1094 we are willing to listen. 1095

1096 *Mr. Davis. Good, thank you, Mr. Chairman. I will be

1097 brief, because I know this is within the context of the 1098 larger discussion around drug shortages.

But I would also say that we respect the fact that this committee and others in Congress over the last several years have focused a lot more attention on the entire supply chain, including many of the stakeholders here and some that are not represented at this hearing, and have begun to question about fees in the channel by different stakeholders.

1105 As I said in my opening remarks about bona fide service fees, they are legitimate fees for a service rendered. And I 1106 1107 reinforce that because I distinguish that from what we would refer to as access fees. There are access fees charged by 1108 some, sometimes very significant, high-level, high percentage 1109 off list-price access fees that impact decisions around 1110 formulary access, either in the insurance market or in the 1111 hospital setting. That is not what a distributor charge is 1112 for. We charge for legitimate fees that CMS requires, have 1113 to be at fair market value. It is literally regulatory 1114 defined that it must be at fair market value. So by and 1115 large, it is a nominal percentage of the list price of the 1116 1117 product.

Our concern about actually shifting it to flat rate would be that, again, we don't know what that scenario would potentially look like, and that system all impacts everybody, from manufacturers to wholesalers. We would have to redo every single one of our contracts. And then it also, perhaps most importantly, impacts the provider community downstream, which is often reimbursed

Mr. Guthrie. Thanks. I have only got one more quick question.

1127 So, Mr. Ebert, if I am an automotive supplier, and I 1128 negotiate a component for my product that is too low, that 1129 the supplier is not going to be able to consistently supply 1130 it to me, and I put it into my product and sell it to an 1131 automotive, and I can't deliver, then I am held accountable 1132 for that. Is that part of your contract, too?

1133 *Mr. Ebert. Our contracting process is an open and fair 1134 and competitive process. When contracts are developed, the 1135 entire process is one in which the manufacturer is included 1136 in the entire process, including the ending, when we 1137 determine what the final contract would be. They are part of 1138 the entire process, where they understand what the

1139 deliverables are and at the same time what the expectations are from the standpoint of our customers. 1140 *Mr. Guthrie. Okay, I am sorry. I asked you that was 1141 1142 not fair to you, I asked the question with not much time remaining, and I have expired. Hopefully, we will get a 1143 1144 chance to answer that, and *Mr. Ebert. Okay. 1145 *Mr. Guthrie. and give you a chance to answer that 1146 question. My time is expired. I apologize for that. 1147 And I now recognize the gentlelady from California for 1148 1149 five minutes for questions. 1150 *Ms. Eshoo. Thank you, Mr. Chairman. And thank you to each one of you. I found your 1151 testimony to be highly instructive. 11.52 And to Mr. Coukell, I think your model is absolutely 1153 fascinating, really fascinating, and I think the first in the 1154 country, the model that you have established. 1155 And in the coming days I am going to introduce the 1156 Pediatric Cancer Drug Supply Act. It is going to establish a 1157 program to create a six-month buffer stock of essential 1158 pediatric oncology drugs. And I hope to see this proposal 1159 66

1160 included as part of any final plan or package to help to 1161 address drug shortages. So I want to ask you, Mr. Coukell and Mr. Ganio, do you 1162 1163 support this proposal? Mr. Ganio. 1164 *Dr. Ganio. Thank you, Congresswoman. Yes, pediatrics 1165 are an especially vulnerable population. There are fewer 1166 drugs approved for pediatrics. We use many drugs off label, 1167 so there are already fewer options for them. I would support 1168 that provision. 1169 1170 I would actually expand that to essential medicines for everyone, including adults. But we have seen some very 1171 heartbreaking drug shortages in pediatric patients 1172 *Ms. Eshoo. Yes. 1173 *Dr. Ganio. _ knowing that they are going without 1174 *Ms. Eshoo. Yes, I have been on this for months. 1175 *Dr. Ganio. Yes, and the heartbreaking part of it is 1176 that many of these pediatric cancers are curable with the 1177 right treatment. 1178 *Ms. Eshoo. Exactly. 1179 1180 *Dr. Ganio. So that provision would save lives.

*Ms. Eshoo. Exactly. Thank you. 1181 Mr. Coukell. 1182 *Mr. Coukell. Thank you for that question, Ranking 1183 1184 Member Eshoo. We, as I have said, maintain a six-month stockpile of 1185 1186 all of our drugs. So we think that is an important part of creating reserve inventory that can buffer supply 1187 interruptions. 1188 1189 What we have found is, for that to work effectively, the size of that inventory has to be directly tied to a 1190 1191 predictable demand for the drug. The worst-case scenario 1192 would be to build up an inventory, and have all of that product outdated and be expired, and then the government is 1193 just out that money. 1194 So I think, absolutely, that it would be a valuable 1195 thing to do, and we would be glad to work with your 1196 *Ms. Eshoo. So what is the ancillary policy that should 1197 be a part of this? 1198 *Mr. Coukell. So it needs to be tied to directly to 1199 purchase commitments for the drug. 1200 1201 *Ms. Eshoo. I see. So how would long-term contracts

1202 help non-profit manufacturers move into the generic sterile injectables market? 1203 *Mr. Coukell. Well, and not just non-profit 1204 1205 manufacturers, but, as you can imagine, if you have 1206 predictable demand, then you have more ability to invest in quality upscale facilities, and you know you are in it for 1207 the long run. If you are manufacturing drug, but you don't 1208 know that you will have market share next year, you can't 1209 1210 build up a stockpile, and are unlikely to sort of invest in quality. 1211 1212 *Ms. Eshoo. So in advising our subcommittee, what are 1213 the top three things that you believe should be included in legislation to address what we are experiencing in our 1214 country, really, placing so many patients in our country at 1215 high risk? 1216 *Mr. Coukell. Specific to a pediatric cancer drug 1217 stockpile? 1218 *Ms. Eshoo. Mm-hmm. 1219 *Mr. Coukell. So I think, again, ensuring that the 1220 there is an effective flow through inventory so that you are 1221 1222 always selling the older stock and replacing it with newer. 69

1223 So it has to be tied directly to demand, so that it doesn't outdate and expire. 1224 And then, you know, thinking carefully about is there 1225 1226 such a thing as pediatric cancer drugs, or are those also used in adult cancers, and how do we navigate that? 1227 And then, really, thinking about how do we do it most 1228 effectively? Does the government need to pay for the full 1229 stock, or is there a way to make the market, you know, pay 1230 for that inventory on an ongoing basis? 1231 *Ms. Eshoo. Thank you. 1232 1233 Let's see, Dr. Barber, what has your research into 1234 generic sterile injectables shown about the relationship between price and the potential for a drug to be in shortage? 1235 *Dr. Barber. Thank you very much, Congresswoman Eshoo. 1236 It is a complicated story. My research in particular looks 1237 at markets for upstream active pharmaceutical ingredients, 1238 for which it is an important component of price for 1239 generic, sterile injectables, and the low prices that we have 1240 seen are in part tied to a race to the bottom in market 1241 consolidation. 1242

1243

3 To respond to your question specifically on what

research shows, I am just going to say what the FDA has found, because they have the best data, the most comprehensive analysis, and they found that for drugs in shortage, even when price increases after, supply shocks are not less likely. So price is a factor, but it is not the beall and end-all.

^{*}Ms. Eshoo. Well, my time has expired, and I will yield back with my thanks to all of the witnesses. This is such an important hearing. And what we do, the words that we write are going to walk right into people's lives. So we have to get this right.

1255 Thank you, Mr. Chairman.

*Mr. Guthrie. Thank you. The gentlelady yields back,
and the chair recognizes the chair of the full committee,
Mrs. McMorris Rodgers, for five minutes for questions.

1259 *The Chair. Thank you to all the witnesses for being 1260 here this morning on this important issue.

Mr. Gaugh, I wanted to start with you and ask a question about some of the reimbursement issues that we see with inflation rebates and the impact on the generic drug market. If a drug is \$0.88 per vial, and the price goes up to

1265 \$1, that is over a 10 percent increase. Current law 1266 penalizes the company for any increase in the price that 1267 exceeds the rate of inflation. Do we really want to penalize 1268 that manufacturer for a nominal increase in the price? 1269 *Mr. Gaugh. So the easy _ thanks for the question, and 1270 the easy answer to that is no, we do not want to.

So if you go back several years, and you look at the intent behind these rebate systems, they were mostly around the brand products, but the generic products got pulled into it. So if you are looking at a brand product _ and I will make up some numbers, but _ that sells for \$1,000 a vial, then a 9 percent, 10 percent increase is a significant increase.

But to your point, if you are talking about something 1278 that is selling for \$1 or less than \$1, and you are looking 1279 at a \$.10 increase, and that is a penalty, it just continues 1280 to push the price down lower and lower and lower. Thank you. 1281 *The Chair. As a follow-up, do you believe exempting 1282 generic, sterile, injectable drugs with multiple 1283 manufacturers from Medicaid's inflationary rebate would 1284 1285 improve economics for these manufacturers and help prevent

1286 shortages?

1287 *Mr. Gaugh. It would be one aspect, yes, of reducing ______
1288 preventing and reducing shortages, potentially, yes.

1289 *The Chair. Thank you.

Mr. Coukell, is the inflation penalty exemption in the discussion draft, which is focused on generic, sterile, injectable drugs that have an indication for a serious disease or condition, the right way to target relief for this class of drugs, are there other drugs necessary for patient care that could still be subject to inflation penalties that we should also consider including?

*Mr. Coukell. 1297 Thank you for that question. The definition that is in the draft now, as you say, for serious 1298 or life-threatening, may leave out some really important 1299 drugs that are on shortage. I use the example of local 1300 anesthetics like lidocaine and bupivacaine, which have been 1301 on shortage for a long time, and I think probably wouldn't 1302 qualify for that threshold. 1303

An alternate approach would just be to look at those very low-cost drugs. When we look at drugs we are selling for under \$4, some of them have rebates between, you know, 10

and 80 percent. And as you can imagine, it is hard to have erosion of margin on products that are priced at that level. So just setting that threshold to say below that threshold they are not subject to those rebates and penalties would be helpful.

1312 *The Chair. Thank you. The _ as another question, the 1313 340B rebate exemption is similarly targeted. Could you talk 1314 about Civica's experience with 340B, and how those rebates 1315 affect the market for drugs often in shortage?

Mr. Coukell. We participate in that program, like any other manufacturer. And you know, as I was saying, for very low-cost drugs, that can be a significant erosion of margin, which makes it that much harder to deliver the products in a sustainable basis.

When we look at generic spending, spending on generic drugs as a total share of health care spending, it is one percent in total. So you know, removing or reducing the rebates on those very low-cost drugs would be unnoticeable, I think, within the context of the 340B program.

1326 *The Chair. Thank you.

1327 Mr. Gaugh, if one of your members were to sign a

1328 contract with a wholesaler or GPO, and a new entrant 1329 manufacturing outside the U.S. launches at half the price, 1330 does your member company lose the contract, or is there 1331 certainty about the price and production number for the 1332 duration of the contract?

*Mr. Gaugh. Contracts are typically a three-year contract, with a set price and an estimated volume at day one, when you sign, that is good for that day one. The volume is estimated, so you are never guaranteed the volume that you bid on. And if a new price comes forward, typically you have 48 hours to match that price or then you lose the contract.

1340 *The Chair. If a manufacturer loses a contract, are 1341 they likely to continue making that drug, or shift to a 1342 completely

1343 *Mr. Gaugh. Depending on how many other contracts are 1344 out there.

1345 No, great question. But it is a limited number, as I 1346 have mentioned in my talking points, limited number of 1347 contracts to go to.

1348 So most often they will just "dump'' their inventory and

1349 move on to another product.

1350 *The Chair. Thank you.

During August I visited a generic manufacturer in my district, and I learned a lot about the red tape our manufacturers must navigate, including necessary state licenses that bog down the process of building new facilities that could help with this shortage.

There is a provision in the discussion draft that would require FDA to expedite inspections of generic, sterile, injectable facilities in advance of an application being filed so the moment the application is approved, the facility could go forward.

My time is expired, but I will follow up with more questions regarding just the process of trying to get manufacturing plants permitted in the United States. I yield back.

Mr. Guthrie. Thank you. The chair yields back, and the chair recognizes the ranking member, Mr. Pallone, for five minutes for questions.

1368 *Mr. Pallone. Thank you, Mr. Chairman, and thank our 1369 witnesses.

As I said in my opening statement, I am concerned that the Republican proposal focuses on raising prices for drugs without doing anything to require drug manufacturers to take action to address drug shortages. So let me ask Dr. Barber. What effect would allowing drug companies to raise prices faster than inflation have on preventing or addressing drug shortages?

Thank you very much for your question. *Dr. Barber. 1377 So increasing the prices of medicines through inflation 1378 rebate exceptions may incentivize new manufacturers to enter 1379 1380 the market. But the measure is poorly targeted, because manufacturers are nevertheless not incentivized to invest in 1381 improving quality and building resilience into their supply 1382 chains. On the contrary, they will continue to be 1383 incentivized to reduce investments in these areas in order to 1384 cut costs and increase their margins. For this reason, 1385 increased prices through the rebate exception are not a well-1386 targeted instrument for achieving the intended aim of 1387 improved supply chain robustness. 1388

1389 I also want to contextualize why we have price controls, 1390 right? Like the Government Accountability Office found that,

you know, for dozens of drugs there were price increases of more than 100 percent in the year that they were stating _ so, yes, it is important to ensure that prices of medicines are sustainable, that they are _ have healthy margins that allow for quality production, but we also need to be aware that prices were increasing dramatically, and these measures were put in place for a reason.

Mr. Pallone. I had two more questions I think you kind of answered, but let me just kind of summarize.

I mean, basically note that lower drug prices are not associated with an increase in shortages. So maybe just explain a little more how you came to that conclusion.

And then, could you see a scenario where, if the Republican discussion draft was passed, a drug company may have the incentive to keep a drug in shortage for longer in order to raise prices faster than the rate of inflation

1407 without any penalty?

1408 *Dr. Barber. Sure. Thank you very much for your 1409 question.

1410 I am sorry, the first question had to do with?
1411 *Mr. Pallone. Well, I mean, how did you come to this

1412 conclusion that the drug prices are not associated with an increase in shortages? 1413 *Dr. Barber. Sure. I am an academic, so I am going to 1414 1415 be very careful and step away from the word "associated.'' It is not strongly associated. And these are not my 1416 conclusions. This is the consensus in the literature. 1417 These are the findings by the Government Accountability Office. 1418 These are the findings by the FDA that point to the root 1419 1420 causes of shortages. The majority, I think, was 62 percent being rooted in manufacturing issues, right? 1421 1422 And there is a kind of, you know, put the horse before the cart. Are manufacturing issues existing because prices 1423 are too low so manufacturers can't invest in them, or is it 1424 the other way around? And I encourage the subcommittee to 1425 ensure that they are getting good value for money in terms of 1426 extra payments, being sure that they are tied in an 1427 accountable way to ensuring that we are paying not just for 1428 profits, but for improved quality management. 1429 To answer to your second question, which was asking 1430 whether or not there are financial incentives for drug 1431 1432 companies to keep certain drugs in shortage, as an economist

I have to answer yes. That is the effect of the incentive. I wish I lived in a world where such business practices were unimaginable, but unfortunately, there is evidence that, given the opportunity, some companies will create artificial shortages for their financial benefit.

1438 For example, in Italy, competition courts found in 2016 that a pharmaceutical company, Aspen, had intentionally 1439 under-supplied Italy with lifesaving cancer medicines to 1440 1441 strengthen their negotiation position on price by creating an artificial shortage. The courts ruled conclusively that 1442 1443 shortages were not the result of production issues, and 1444 internal emails showed that Aspen went so far as they planned to destroy stock of these medicines if they didn't get the 1445 higher prices they demanded. I think this context is 1446 important. Thank you. 1447

1448 *Mr. Pallone. All right. I am trying to get in one 1449 more question here.

There seems to be agreement about Republicans and Democrats that, you know, there is a problem with the API, right? The Republican _ both the Republican discussion draft and Ms. Eshoo's legislation ask drug manufacturers to report

1454 where the API in their product is coming from. However, one key difference is the Republican discussion draft only 1455 requires this of companies relying on 1 API manufacturer for 1456 1457 60 percent or more of their supply chain. And so let me ask you this. I mean, what steps should 1458 we take to better improve our knowledge of API sources and 1459 the overall drug supply chain? 1460 And can you tell us whether it makes sense to require 1461 only certain drug sponsors to report on their API sources? 1462 *Dr. Barber. Thank you for your question. 1463 1464 No, it doesn't make sense to exclude to only certain 1465 sponsors. And to be frank, I think the thing that we should focus on is not where was the API produced for a given drug, 1466 but when we think about, you know, public health for the 1467 drugs that we need, how many suppliers are there? Where are 1468 they? Right? 1469 So at present there is no systematic monitoring of API 1470 That is not done by FDA. It is not done by EMA, it markets. 1471 is not done by WHO. We don't know, right? So the most 1472 central questions for supply chain resilience: how many API 1473 1474 manufacturers are there, what capacity can be mobilized in a

1475 shortage or emergency cannot be answered.

So I hope one outcome of this hearing is a shared 1476 understanding of the urgent need to map global and domestic 1477 1478 API production, to measure and monitor manufacturing capacity, and to compel manufacturers to share more detailed 1479 information on supply chain and manufacturing issues. 1480 Promoting quality is a global problem, and I urge the 1481 subcommittee to be vigilant in not allowing increasing trade 1482 1483 tensions to threaten health.

1484 It is a problem if there is only one factory 1485 manufacturing a vital antibiotic, whether that factory is in 1486 the United States or China or India. Economies of scale, 1487 especially for drugs with small patient populations, are 1488 always going to rely on globalized supply chains. But we 1489 need more transparency. Thank you.

1490 *Mr. Pallone. Thank you.

1491 Thank you, Mr. Chairman.

Mr. Guthrie. Thank you. The gentleman yields back, and the chair recognizes Dr. Burgess for five minutes for questions.

1495 *Mr. Burgess. Thank you, Mr. Chairman.

Mr. Gaugh, let me just ask you a question because price setting, price controls now has come up with _ as a way for _ 1497 to hold the prices down. But in other areas of economics we 1499 learn that price setting could actually reduce the 1500 availability of a product. Is that something that you have 1501 encountered?

Mr. Gaugh. So, yes, thanks for the question. And yes, throughout the contracting process you do find instances where that does occur, absolutely.

*Mr. Burgess. It comes up because I went to a community clinic back home in the district, talked to a doctor who takes care of primarily uninsured, low-income, under-insured patients. And his concern was that he is going to have less availability of some lower-cost products because they are just simply going to be eliminated. Is that a legitimate concern of his?

Mr. Gaugh. It is. And I actually _ AAM belongs to an international group called the International Generic and Biosimilar Medicines. And in a conference that we had last week, that statement, very similar to what you are making, was made, and that is the prices are pushed down very low,

1517 but the drugs are not available when they get to that low 1518 level, hence drug shortages.

*Mr. Burgess. Okay, and that is a concern because we are seeing more of a reliance _ and I don't mean for this to be political at all _ but we are seeing more of a reliance from the Administration to say, hey, we are just going to limit your expense here on this. All well and good until there is no more of that product to buy. And then that is a serious problem.

Mr. Ganio, let me ask you a question about _ we had some complaints earlier before we had this hearing that we weren't tackling these problems at the FDA. Does the FDA have existing authority to prevent drug shortages?

*Dr. Ganio. Thank you for the question. It gives me a great opportunity to commend the work of the drug shortage staff at the FDA. They do phenomenal work preventing shortages.

I think where there may be some deficiencies, or where the CARES Act, for example, was passed in 2020 with reporting requirements that we are actually talking about today, filing risk management plans, but there is no enforcement authority.

1538 And the FDA also doesn't have the authority to recall on their own. They most of the recalls are voluntary. 1539 *Mr. Burgess. So let me get back to a theme that always 1540 1541 seems to recur with me. Has there been an internal analysis at the FDA of what they have got right and what they have got 1542 wrong, and how do we avoid some of the mistakes of the past? 1543 *Dr. Ganio. The only insight I can give you into that 1544 is the root causes report that was published in 2019. It was 1545 an interagency effort, and it has pointed to these the low 1546 economic incentives for getting into the market and staying 1547 1548 in the market, and then a lack of market recognition of 1549 quality. Whether there was an internal review within FDA on their role, I can't answer, I am sorry. 1550 *Mr. Burgess. And obviously, 2019 would be 1551 pre-pandemic. And I am extremely interested to try to get 1552 Dr. Califf to share with us any sort of introspection they 1553

have done since the pandemic. But that is a separate issue, we will work on that another day.

How is the FDA working to ensure that drugs on the market meet quality standards of what could be done to further improve the transparency requirements to ensure that

1559 providers have the tools they need to choose the drugs that 1560 work for their patients?

*Dr. Ganio. I think that is the root cause that we really should be talking about, is how do we make sure purchasers have that information to know they are buying from reliable supply chains.

FDA has proposed the QMM Program, the Quality Management 1565 Maturity Program. There are some other third parties that 1566 1567 have proposed systems to evaluate quality, and I know some of the GPOs are looking at that as part of their contracting. 1568 But that really we need to find a way to support the 1569 1570 manufacturers that are making investments in quality. And right now, the only information we have access to, as 1571 purchasers, is the price. 1572

And so that just reinforces this race to the bottom, and we are buying the cheapest product that we can because of the way we are talking about ASP calculations. But these drugs are not separately payable.

1577 So of course, we are incentivized to buy the cheapest 1578 product because there is no recognition from payers on which 1579 product we are using.

1580	*Mr. Burgess. So let me ask you another question before
1581	my time runs out, and I will have $_$ I will ask all of you to
1582	respond to some written questions that I have, because I just
1583	don't have the time.
1584	[The information follows:]
1585	
1586	*********COMMITTEE INSERT********
1587	

*Mr. Burgess. But you referenced Adderall in your 1588 opening remarks. And look, we have trained consumers in 1589 over the past several years that, if you can't find 1590 1591 something, you go online and you get it, right? There is a risk to going online and buying your Adderall, because it may 1592 come from someplace you have never heard of, and it may not 1593 be pure Adderall, it may be laced with fentanyl. And that is 1594 a real risk. 1595

*Dr. Ganio. Absolutely. The online purchasing, any kind of pharmaceuticals online, is a discussion we can certainly have. And there are dangers with supply chain vulnerabilities and counterfeit products on the online pharmacies.

1601 *Mr. Burgess. Great. I just thought it was important 1602 to underscore that for people who are watching this hearing 1603 today.

1604 Thank you, I will yield.

1605 *Mr. Guthrie. That is accurate. Mr. _ the doctor 1606 yields back, and Mr. Cardenas is recognized for five minutes 1607 for questions.

1608 *Mr. Cardenas. Thank you very much, Chairman Guthrie

and Ranking Member Eshoo, for holding this hearing and to 1609 discuss the shortage landscape. And I also want to thank the 1610 witnesses for your insights and your opinions today. 1611 1612 I have said in this committee before that failing to provide FDA with a clear and end-to-end picture of our 1613 pharmaceutical supply chains is a mistake with dire 1614 consequences. We are now working to address a problem with 1615 our hands tied behind our backs. 1616

1617 My Republican colleagues, on the other hand, have 1618 brought forth a proposal which clears the way for unchecked 1619 price increases that will raise costs for consumers and do 1620 nothing to alleviate shortages. Not only is this an 1621 inappropriate solution to our current problem, it will limit 1622 access even more.

In a previous hearing I asked Dr. Julie Gralow, head of the American Society of Clinical Oncology, what would be the most helpful to avoid and mitigate shortages. Her response was clear: expanding FDA's ability to know where manufacturers source their active pharmaceutical ingredients is critical. This sentiment has been affirmed by experts at the FDA, as well, stating that manufacturing quality issues

1630 and delays in sourcing raw materials are largely to blame for 1631 the current shortage.

Yes, drug shortage issues are complicated, and there are market forces at play. But let's at least build consensus around getting proper reporting and information structures to allow us to monitor and anticipate these shortages.

And most importantly, let's not forget why this matters and what is at stake. We are talking about the lives of every American.

Almost one-third of hospital pharmacists say they have 1639 1640 had to ration or delay treatments because of these shortages, 1641 with oncology drugs being particularly scarce. This means that the victims of this shortage are very ill cancer 1642 patients who can't wait, let alone weeks or months, to get 1643 their treatments. For oncology drugs in particular, a delay 1644 in treatment for 4 weeks can mean increased sickness and 1645 mortality for over 40 percent of common cancers. We need to 1646 intervene quickly, and playing with the price points on drugs 1647 is not the answer. 1648

1649 Mr. Ebert, your testimony notes that price isn't the 1650 only factor that health care providers consider when making

purchasing decisions. Can you expand on that?
Mr. Ebert. Yes. Our contracting process relies on
three important components in the contracting piece. Price
is one, as you have identified.

Number two is quality, we are very keen on analyzing the 1655 quality prospects or the aspects of the pharmaceutical 1656 company that we are dealing with. We want more information, 1657 as your comments made have been made. Information is 1658 1659 better, from our standpoint, because it helps us make better decisions. So we encourage the FDA's QMM program that has 1660 1661 been discussed, or others that give us more information. And then we work really closely with our members relative to 1662 their input regarding quality products, as well. 1663 It is extremely important to us, and more information is better. 1664 And the final piece is the stability of supply. That is 1665 important, as well. And we are using all those aspects to 1666 develop stronger contracts for our suppliers to work with our 1667

1668 customers.

1669 *Mr. Cardenas. Okay. And what kind of visibility into 1670 the drug supply chain do group purchasing organizations, 1671 distributors, and health care systems have?

1672 And how might having the ability to forecast shortages help to avoid similar situations in the future? 1673 *Mr. Ebert. The visibility that we have now is pretty 1674 1675 limited. We try to use as much information as we possibly can. We will go on the website to see what 483s are out 1676 there. But a lot of that information is redacted, and so we 1677 don't have a lot. 1678 The good thing is that we have members that have a lot 1679 1680 of experience. They will let us know if there are issues with their products that they use. And as a pharmacist 1681 1682 practicing before, you know, you do look at your supplier and determine what are the issues relative to quality. 1683 So we are looking, and we are seeking more information, 1684 and that is very important to us relative to the contracting 1685 process. And developing a strong supply chain line, that is 1686 important to us. 1687

1688 *Mr. Cardenas. Okay, thank you.

1689 Mr. Ganio, what kind of notification processes are in 1690 place so that health care settings can anticipate shortages, 1691 and providers can put out guidance?

1692 And why is it important to build these systems in?

*Dr. Ganio. It is actually critical to build those systems in. We don't get a lot of notice of a shortage. And often times you find out that there is a shortage when something doesn't come in from a wholesaler. And then you order it again, and if it doesn't come in then we get a report that there is a potential shortage, and we will investigate.

The transparency information that we are discussing 1700 1701 today is critical to improving predictive models. I think anticipating a shortage is very difficult, but there are 1702 1703 predictive modeling exercises being done by United States 1704 Pharmacopeia, for example, looking at vulnerability. And that vulnerability score can be improved with more 1705 transparency, and those are the types of things that we can 1706 use as providers to start to develop mitigation plans. 1707

1708 *Mr. Cardenas. Thank you very much.

1709 My time is expired. I yield back.

1710 *Mr. Bucshon. [Presiding] The gentleman yields back. I
1711 now recognize Mr. Latta from Ohio for five minutes.

1712 *Mr. Latta. Well, thank you, Mr. Chairman, and thank
1713 you to our witnesses for being with us today.

1714 In the United States we shouldn't be facing a drug shortage crisis. We have the tools, the manufacturers, and 1715 the resources. In rural communities in my district I can't 1716 1717 tell you how many patients and hospital leaders I have spoken with that have had to take matters into their own hands and 1718 1719 use creative ways to overcome these shortages. Unfortunately, there isn't a silver bullet to address these 1720 shortages. They are a combination of overreaching government 1721 1722 programs and a lack of efficiency in approving new drugs. Mr. Gaugh, let me start with you. Do your companies 1723 1724 tell FDA where API is manufactured as part of the 1725 applications, yes or no? 1726 *Mr. Gaugh. Yes. *Mr. Latta. And can FDA inspect an API facility, yes or 1727 1728 no? *Mr. Gaugh. 1729 Yes. *Mr. Latta. Thank you. Let me continue, Mr. Gaugh. 1730 Ι know that the 340B programs that have been a concern have 1731 been reviewed by this committee. Does the 340B program 1732 influence the generic drug market? And if so, what can be 1733 1734 done to address the impacts?

Mr. Gaugh. So yes, it does influence the market.
Every hospital has the purchase power to buy under 340B
contracting. And so those prices and the price reductions
occur on the contract process under 340B. So that is just a
continued lowering of the price of the product.

1740 *Mr. Latta. Okay. And so what can we do to address the 1741 impacts, then?

1742 *Mr. Gaugh. So there is a couple of things that can be 1743 done.

Number one, we look at the pricing in the inflation, and then there is a 14 percent reduction underneath that. We think that 14 percent reduction could be removed in areas of drug shortage. Is that really required, if it is already near zero, from a profitability, to take an additional 14 percent off?

1750 Also could raise the ceiling for 340B on the generic 1751 drug prices.

1752 *Mr. Latta. Okay, thank you.

This committee recently worked on the reauthorization of a generic drug user fee agreement, which included provisions to speed up the approval of generic drugs. How does the FDA

1756 process influence the generic drug market, and do potential 1757 delays impact a manufacturer's ability to bring a product to 1758 market? 1759 *Mr. Gaugh. So we are now in our third iteration, if 1760 you will, of GDUFA and BsUFA. And in both cases we have had

major advances in each of the five-year sections. So now we are at a 10-year clock on the approval process, and very tight metrics set around that that the industry can monitor the FDA on. And in general, they are making that mark.

So we either get an approval, tentative approval, or a complete response letter towards the end of those 10 months that we can then turn around and respond to in an additional few months for review and approval.

1769 *Mr. Latta. Okay, thank you.

Mr. Davis, contracting practices between manufacturers and wholesalers can have a large impact on ensuring adequate supply of medicines. Is it typical for commercial wholesalers like your members to contract with multiple manufacturers to ensure supply isn't impacted if one manufacturer encounters an issue that prevents them from manufacturing a product?

1777 *Mr. Davis. Yes, Congressman Latta, thank you for the question. The short answer is yes. 1778 I think if you actually look for a minute and I know 1779 1780 the focus of this hearing is on generics and injectable generics, but also recognizing that from our members' 1781 perspective, their negotiations on the branded side versus 1782 the generic side look very different, right? 1783 If you look at the balance of our system in 1784 1785 Hatch-Waxman, on the branded side you negotiate and consider safety, efficacy, and cost. And on the generic side, 1786 1787 efficacy and safety have essentially been removed, 1788 historically. And the intent of generics originally back to the mid-80s was to compete on price. 1789 So the reality is, in the generic market, what our 1790 members are forced to do is actually negotiate with multiple 1791 manufacturers simultaneously to build in resiliency to 1792 protect against one of them shutting down. 1793 *Mr. Latta. Let me follow up. As far as you know, do 1794 your members frequently award sole source contracts for 1795 generic medicines? 1796 1797 *Mr. Davis. There might be circumstances where that

1798	happens. But as I just said, the reality is, particularly in
1799	an era of increased shortages, they are looking at things
1800	well beyond costs. They are looking at historical
1801	reliability, ordering patterns, if they had preexisting
1802	business relationships with the manufacturer, has that
1803	manufacturer been in short before in certain therapeutic
1804	areas, and, if so, how does that inform current negotiations?
1805	And they are also looking at the length of time of their
1806	contracts, recognizing there is a desire for greater
1807	stability in the market.
1808	*Mr. Latta. Okay. Well, thank you very much.
1809	And Mr. Chairman, I yield back.
1810	*Mr. Bucshon. The gentleman yields back. I now
1811	recognize Dr. Ruiz for five minutes.
1812	*Mr. Ruiz. Thank you, Mr. Chairman. As we have heard
1813	from experts here today, our nation is facing a critical
1814	shortage of medications, and we need to act now.
1815	As an emergency medicine physician, it has always been
1816	my top priority in Congress to improve patient access to
1817	high-quality, affordable health care. We have made great
1818	strides towards this goal, but these efforts are moot if we

1819 cannot ensure ready supplies of the medications patients 1820 desperately need. In the emergency room I have witnessed 1821 firsthand the dire implications that shortages of key 1822 medications are having on the lives of my patients. For 1823 patients suffering from infections or trauma, or fighting 1824 against cancer, or needing paralytics to be intubated, this 1825 is a matter of life and death.

One factor we have identified that contributes to these 1826 shortages are manufacturing challenges. These issues stem 1827 from fewer drug manufacturers being based in the United 1828 1829 States and little regulation on reporting to the FDA. We need to target our efforts at addressing these problems, 1830 which are the source of supply problems to better prevent 1831 deadly shortages. Current shortages of vital chemotherapy 1832 drugs due to these manufacturing challenges illustrate the 1833 urgency of this. 1834

We must increase transparency in manufacturing and increase responsiveness to prevent further shortages in the future. And we need to expand manufacturing, and we need to put reporting mechanisms in place to _ for transparency to ensure reliable supply of safe medications to secure patient

1840 access to the affordable care that they need. As we saw with the recent baby formula shortage, lack of transparency and 1841 limited manufacturing capacity leads to negative health 1842 1843 outcomes. Mr. Gaugh, what are the most effective mitigations we 1844 can make to bolster domestic supply and production of 1845 medications? 1846 *Mr. Gaugh. To increase domestic? 1847 *Mr. Ruiz. Yes, to bolster domestic supply and 1848 production of medications. 1849 1850 *Mr. Gaugh. So it is all really about the expense for 1851 doing that. So to your point, we have what we call a blueprint. And in that blueprint we talked a significant 1852 amount and I can get it to the committee about bringing 1853 production back, or expanding production in the U.S. And 1854 that is going to look at having we are now up against, if 1855 you will, foreign entities that are a much lower cost for 1856 building and labor costs. But we are competing in the U.S. 1857 market for a higher price point when you look at the 1858 1859 contracting.

1860 So this looks at potential tax relief, if you will,

1861 grants, but also looking on the back end of a cost point or a 1862 price point in the actual contracting of those products in 1863 the U.S., because you are still going to be competing with 1864 companies offshore in that contracting process. Thank you. 1865 *Mr. Ruiz. Thank you. And thanks for your input 1866 towards addressing these solutions.

So, you know, I am going to urge my colleagues to support the five bills before us, and especially the Drug Shortage Prevention Act, which would directly address the concerns I brought up today by requiring manufacturers to notify the FDA when they experience periods of increased demand so that the FDA can step in and respond more immediately to prevent a looming drug shortage.

1874 So thank you and, a gift to the committee, I yield back 1875 the rest of my time.

*Mr. Bucshon. The gentleman yields back. I am now
going to recognize Mr. Johnson from Ohio for five minutes.
*Mr. Johnson. Thank you, Mr. Chairman, and good morning
to all of our panelists.

1880 You know, today we are looking at how Congress can 1881 address an issue impacting every single corner of our

society. From oncology drugs and baby formula to ADHD and generic medications, the current drug shortage is restricting the care that doctors can provide, and it is reducing the quality of patient care nationwide. And all this reduces the guality of life for all Americans.

In some cases, parents are concerned about sending their children off to start another school year without the medications they need. In other cases, doctors are substituting cancer treatments because they are unable to access their preferred treatments. In any first-world country, especially the United States, this is wholly unacceptable.

I am sure each member of this committee can tell a story 1894 of someone they represent not being able to get their 1895 prescriptions filled or having to change their cancer 1896 treatments in order to work around a shortage of a particular 1897 oncology drug. That is why this hearing today is so 1898 important. We need to fix this, and we need to fix it now. 1899 So, Dr. Gaugh, many of our drug shortages are caused by 1900 quality problems. Why do your members seem unable to invest 1901 1902 in more modern and upgraded manufacturing facilities that are

1903 less likely to have quality issues?

*Mr. Gaugh. Thank you for the question, and that question and the process around it, we don't believe, is a totally true statement. We have heard the FDA say that, as well. We do reinvest into our facilities. We do add in new equipment, new lines, building new parts of the facility. So it is not that reduction. It is a combination of FDA inspection processes and the actual facility.

So as I said in my opening statement, we think there should be a very important process where the drug shortage staff of the FDA works with the Office of Regulatory Affairs and the Office of Compliance as they go through those inspection processes to make sure that it is an objective, not a subjective process.

1917 *Mr. Johnson. Okay. Do group purchasing organizations, 1918 or GPOs, contracting _ do GPO contracting practices play a 1919 role in pricing and the stability of the generic market? 1920 *Mr. Gaugh. Yes, they do.

Mr. Johnson. Okay. All right. While I am with you,
Mr. Gaugh, I heard a mention that FDA does not know where API
is made for generic drugs. Mr. Gaugh, do generic companies

1924 tell FDA who their API suppliers are as part of a generic drug application? Yes or no. 1925 *Mr. Gaugh. Yes. 1926 1927 *Mr. Johnson. They do. Can FDA inspect those API 1928 suppliers? *Mr. Gaugh. Yes, they can, and they do. 1929 *Mr. Johnson. Okay, great. 1930 Mr. Davis, what do your HDA members do when there is a 1931 1932 shortage and they don't have enough inventory on hand to fill their customers' orders? 1933 1934 How do they decide how much each customer gets, and how 1935 do distributors mitigate and manage drug shortages? *Mr. Davis. Thank you, Congressman, for the question. 1936 So I would answer that in two ways. 1937 I think the first thing is they want to define the scope 1938 and the severity of the shortage, and they do that through 1939 regular communication, active communication with their 1940 upstream manufacturing partners, as well as their downstream 1941 providers. Often times, going back to my opening statement, 1942 we have to define whether or not this is a demand-driven 1943 1944 shortage or a supply-driven shortage, because the solutions

1945 to those things can *Mr. Johnson. Okay. 1946 *Mr. Davis. and often does look differently. 1947 The biggest thing they do is they will once it is 1948 confirmed that there is a shortage will often put all of 1949 their downstream providers on what they call fair share 1950 1951 allocation. *Mr. Johnson. Right. 1952 *Mr. Davis. It is often an algorithmic formula that 1953 makes sure that everybody gets a portion of what they like so 1954 1955 that no one goes without it completely. 1956 *Mr. Johnson. Okay. *Mr. Davis. The shortage 1957 *Mr. Johnson. Continuing with you, Mr. Davis, it seems 1958 that distributors are in a unique position to see shortages 1959 coming because of their interaction with both the supply and 1960 demand sides of the equation. So do distributors communicate 1961 to the FDA when they see the potential for a shortage coming? 1962 And is the FDA leaning forward and reaching out to you 1963 when they see the potential for a shortage? 1964 1965 *Mr. Davis. Yes, sir, on both of those fronts. I think

if you go back to last fall, and you look at what was 1966 referred to as the Tripledemic, I had direct conversations 1967 with the FDA commissioner as well as our team with the Office 1968 1969 of Drug Shortages and his office, as did many of our members. The only thing I would distinguish is I think there is 1970 more visibility from us, given the relationship with the 1971 provider end, particularly the pharmacy community, when there 1972 is demand-driven, because that is coming up through the 1973 system. And we don't have as much visibility on supply-1974 driven, because the manufacturers are obviously living with 1975 1976 that before 1977 *Mr. Johnson. Okay, my time has expired. What about the manufacturers? Do they communicate that they are 1978 struggling with keeping up with supply and demand, yes or no? 1979 *Mr. Davis. To distributors, sir? 1980 *Mr. Johnson. Yes. 1981 *Mr. Davis. Yes. 1982 *Mr. Johnson. Okay. 1983 *Mr. Davis. Yes, we try to ensure that there is regular 1984 communication. 1985

1986 *Mr. Johnson. All right, Mr. Chairman, I yield back.

1987 *Mr. Bucshon. The gentleman yields back. We now recognize Mrs. Dingell for five minutes. 1988 *Mrs. Dingell. Thank you, Mr. Chairman, and thank you 1989 1990 to all of the witnesses today for being here. As you all are discussing, and all my colleagues are 1991 discussing, drug shortages are upending patients' course of 1992 treatments across the nation, which is why many of us have 1993 been calling for this committee to take action for months. 1994 Ι 1995 have been hearing from people who can't get access to the chemotherapy drugs, et cetera. 1996

But during the August recess I held a roundtable at Michigan Medicine, as well as met with a number of doctors to discuss these ongoing shortages. And what was particularly distressing to me was hearing that while FDA is saying we have got a drug shortage of 100-some, for that hospital themselves they have got a drug shortage of more than 500 drugs, and simple things like lidocaine and steroids.

And people say, "Well, can't you do something else?" 2005 But in a baby that is in intensive care, a drop is what is 2006 needed. And if the larger is available, that larger amount 2007 or that larger will kill them. People are dying because of

2008 this.

2009 My Michigan colleague, Elissa Slotkin, is leading H.R. 2010 3793, the Ensuring Access to Lifesaving Drugs Act of 2023, 2011 which I believe would be a meaningful step forward. The 2012 legislation would empower the FDA to require drug 2013 manufacturers to extend shelf life dates of drugs in shortage 2014 based on sound data to ensure we are not unnecessarily 2015 discarding valuable products.

Dr. Barber, can you share how extending the longest supported expiration date could help address future shortages?

2019 *Dr. Barber. I am sorry, I just had a bit of a hard 2020 time hearing you at the end. The question is extending the 2021 expiration date may help address shortages?

2022 *Mrs. Dingell. Yes, can you share how extending the 2023 longest supported expiration date could help address future 2024 shortages?

2025 *Dr. Barber. Thank you very much.

2026 So the shelf life extension program does exist. This 2027 legislation expands it. It was established in 1986, and 2028 funded by the U.S. Department of Defense and carried out by

the FDA, and it regularly conducts shelf life extension studies on medicines deemed to be of military importance. And these sorts of programs have demonstrated their value in terms of ensuring that _ in defense _ access to quality medicines are expanded.

It would be _ one example _ sorry, I am going off notes here. One example where this has been really obvious is on insulin, right? So in terms of shelf life and awareness, manufacturers are not incentivized to tell users what the maximum kind of safe use of a period is.

And the only reason that we know that insulin is heat stable for longer than kind of we previously realized is because a hurricane happened. And in the aftermath, the drug company said, "Okay, actually, here is our internal data. It is safer to use over a longer period of time than we said, okay?'' And then that was further expanded upon by a nonprofit organization, Doctors Without Borders.

And so that strange little turn of history has benefited many people with diabetes in knowing that they can use their drugs safely. And so these measures can be expanded across a huge range of drugs so we have less wastage and more access.

2050 Thank you.

Mrs. Dingell. So thank you. But unlike the approach in H.R. 3793 of empowering the FDA to work directly with drug manufacturers to extend shelf life, the Republican discussion draft includes a one-month extension of exclusivity for a drug if a shelf life extension study is conducted. Dr. Barber, is granting an additional month of exclusivity for a shelf life extension study a productive way

2058 to mitigate the effects of a drug shortage?

*Dr. Barber. Absolutely not. So the added cost to CMS would be significant if we extended exclusivities by a month. An analysis of additional revenues generated for each medicine _ for something analogous, the pediatric exclusivity, which is six months, found that the net benefit to manufacturers was \$134 million per therapeutic receiving this exclusivity.

2066 So scaling this estimate down to one month would suggest 2067 average additional cost to Americans of over \$21 million paid 2068 in profits for each medicine receiving one month of

2069 additional exclusivity.

2070 So it has been reported that the cost of these studies

is only about \$350,000, right? So that is maximum. 2071 This is just not good value for money. It is not addressing 2072 shortages. And those resources could be better used to 2073 2074 target the key drivers of shortages in the first place. Thank you. 2075 *Mrs. Dingell. Thank you. I am going to have some 2076 questions about compounding I am going to submit for the 2077 record. 2078 But since I have only got a minute left, I am going to 2079 go to Mr. Davis and ask you, what do your members do when 2080 there is a shortage and they don't have enough inventory on 2081 hand to fill their customers' orders? 2082 How do they decide how much each customer gets? 2083 How do distributors use fair share allocation to 2084 mitigate and manage drug shortages? 2085 *Mr. Davis. Thank you for the question, Congresswoman. 2086 They do use, as you alluded to, fair share allocation, with 2087 the goal being to make sure that every one of their customers 2088 gets some percentage of what their order would have been 2089 otherwise. 2090

2091 That is informed by a number of things. Obviously,

2092 real-time communication between the provider community and the distributor. It is also based upon historical ordering 2093 patterns, as well as forecasting as to when the shortage 2094 2095 might come off or I should say the shortage will become offline so that there is ample supply moving forward. 2096 *Mrs. Dingell. But people aren't getting medicine that 2097 they need. Is that not correct? 2098 *Mr. Davis. In a fair share allocation you are correct 2099 2100 that each provider is not getting the full allotment of what they requested. But instead of making sure that some get all 2101 2102 and some get none, they are allocating as best they can with 2103 the supply that they have. *Mrs. Dingell. Mr. Chairman, I am out of time so I am 2104 going to submit questions for the record. 2105 [The information follows:] 2106 2107 2108 2109

2110 *Mrs. Dingell. But I am going to reinforce we have got an obligation to address and find solutions to this crisis 2111 because it is real. 2112 2113 *Mr. Guthrie. [Presiding] Thank you *Mrs. Dingell. And people are dying. Thank you, Mr. 2114 2115 Chair. *Mr. Guthrie. Thank you. The gentlelady yields back. 2116 The chair now recognizes Mr. Griffith from Virginia for five 2117 2118 minutes. *Mr. Griffith. Thank you, Mr. Chairman. I appreciate 2119 2120 it greatly. I am pleased to see my bipartisan bill, H.R. 167, the 2121 Patient Access to Urgent-Use Pharmacy Compounding Act, is 2122 included on today's list. This bill is intended to create a 2123 safe and efficient pathway for patient access to compounded 2124 medications when there is an urgent need, or when there is a 2125 drug shortage. This bill has support from many members of 2126 this committee, especially my friend, Representative 2127 Harshbarger, who is herself a compounding pharmacist. 2128 The bill uses 2020 successful temporary FDA guidance as 2129 2130 a template to allow pharmacies and other approved entities to

2131 compound medications to respond to urgent use and drug 2132 shortages. During this temporary guidance there were zero 2133 adverse events reported from compounded drugs coming from 2134 503A pharmacies.

This bill would create a permanent path for 503A 2135 pharmacies to provide urgent use and shortage drugs to 2136 hospitals and physicians. It also expands the list of 2137 eligible drugs to be included to not just the FDA's shortage 2138 2139 list, but also the American Society of Health System Pharmacists' shortage list, which is more local or regional. 2140 2141 Now, I think this is important: expanding the shortage 2142 definition to include the FDA's list of drug shortages and shortages identified by the ASHSP [sic] will help capture a 2143 wider breadth of drugs facing a shortage. This list is much 2144 more up-to-date and nimble than the FDA shortage list. 2145

The bill is not only important, but also timely due to the tornado in July that damaged a Pfizer plant in North Carolina. The damages to that plant have caused some of their drugs to go on the shortage list, and this bill would help mitigate some of those shortages. I hope to see the bill move through the committee and step in the right

2152 direction.

Now let me address questions that people have not yet 2153 verbalized, but I know are floating out there. 2154 2155 How do we protect against another New England Compounding Company problem? As you all will recall, New 2156 England Compounding Company, frankly, was a criminal actor, 2157 producing medications, sterile injectables or so-called 2158 sterile injectables, and they created in the process of being 2159 2160 lax their own form of fungal meningitis, and it killed dozens of people, some in my district. And as a part of that, and 2161 2162 as a result of that, this committee did oversight work and found out that both Massachusetts and the FDA had not done 2163 their job. We had a criminal actor who was not getting 2164 proper oversight by state or Federal. We changed the laws. 2165 We brought more scrutiny on the compounding pharmacies. DQSA 2166 came into being. 2167

We can never completely protect society from a criminal actor. That is why we need our agencies to be prepared to step in. NECC was particularly problematic because the FDA and Massachusetts came in and said, "Yes, we messed up''_____ FDA continued to think they didn't do anything wrong, and it

2173 troubled me at the time. But they did. Both the State of Ohio and the State of Colorado had warned them that there was 2174 a problem at NECC. They took no action. They wanted a nice, 2175 2176 neat case if they were going to bring any action, all presented to them nicely in a box with a bow on it. That is 2177 not the way it works. I practiced criminal defense work. 2178 That is not the way it works. You got to go in. Sometimes 2179 you have to take the chance. 2180

And I said at the time _ and this is what our agencies need to do, and I think each of our witnesses would agree _ if you see somebody who is creating a problem, and you get warnings from the State of Ohio and the State of Colorado _ Colorado even banned them _ you probably ought to take action, even if you end up not getting a conviction but you save lives.

And I gave the example of the officer on the street who sees somebody who swerves a little bit in the road. May not be a DUI, might be. But that person is headed to a crowded intersection. In the case of NECC, the FDA did not stop that actor who looked like they were doing something wrong. What the officer is supposed to do, like that with that drunk

2194 potential drunk driver, stop them before they get to the 2195 point where they will cause deaths. Go in and investigate. 2196 If you find out that the person, you know, was just fiddling 2197 around or not paying attention, then maybe you move on. But 2198 if you find there is a serious problem, you stop it before it 2199 happens.

I believe that this bill, 167, will help us with drug 2200 shortages. I believe that we have taken substantial steps 2201 2202 with our prior passing of the DQSA to prevent another NECC. 2203 But for those who want the world to be perfect, I cannot 2204 promise you that we won't have a criminal actor. I cannot 2205 promise you that the state agencies who are charged with overseeing medications brought into their states will do 2206 their job. And I cannot promise you that the FDA once again 2207 will not act negligently in not responding to state concerns. 2208 But it is a good bill, and I hope that we will pass it. 2209

I yield back.

*Mr. Guthrie. The gentleman yields back. The chair
recognizes Ms. Kuster from New Hampshire for five minutes.
*Ms. Kuster. Great, thank you, Chairman Guthrie. And
thank you. I am glad that this committee is dedicating time

2215 to ensuring that patients can access the medications they
2216 need.

I will say I am disappointed that we did not include important policies to respond to drug shortages in the context of pandemic preparedness. But I hope this committee will get to that on another day.

I want to thank our witnesses for your testimony. As you have all explained, drug shortages are driven by multiple factors, and require a sophisticated, thoughtful response.

I am concerned, however, with some of the proposals 2224 2225 before us, particularly the notion that 340B is a program 2226 that has any relationship with drug shortages. It does not. The 340B program allows patients to help pay for the 2227 lifesaving care and treatment they need. It does not 2228 skyrocket drug use or prescriptions. To claim otherwise is a 2229 disservice to the very real factors contributing to the drug 2230 shortages, and lets manufacturers off the hook for raising 2231 prices. We can and must pursue a better approach. Instead 2232 of blaming patients for accessing the drugs that they need, 2233 we should address manufacturing problems, supply chain 2234 2235 bottlenecks, and the mismatch between supply and demand.

2236 Today I want to focus on how generic and biosimilar drugs can balance supply and demand. Generics are a low-cost 2237 alternative for patients making up around 90 percent of 2238 2239 prescriptions in the U.S. However, they also make up twothirds of drug shortages at any given time. That is why I 2240 was proud to introduce bipartisan legislation with 2241 Congressman Dunn to increase transparency between the FDA and 2242 manufacturers to help bring generics to market faster. 2243 2244 Today I am also introducing bipartisan legislation with Representatives Miller-Meeks, Matsui, and Dunn entitled the 2245 2246 Ensuring Access to Lower Cost Medicine for Seniors Act, which 2247 would ensure that generics and biosimilars on Medicare Part D formulary are available to seniors. 2248

Dr. Gaugh, can you describe how these two proposals could help address generic drug shortages?

*Mr. Gaugh. Thank you for the question and, yes, you are trying to expand the access, if you will, for that. And so that is another customer base, if you want to look at it that way, from a manufacturing standpoint.

2255 The problem is still in the contracting processes 2256 between the manufacturer and the patient. And so there is

2257 that stream in between that still needs to be addressed. *Ms. Kuster. Thank you. Are there additional policies 2258 that this committee should consider to specifically support 2259 2260 lower-cost generic and biosimilar drugs, in your view? *Mr. Gaugh. So in my testimony I talked about the 2261 sustainability of our industry, and I am going to go back to 2262 what I just said. It is really about the in-between, if you 2263 will, so between the manufacturer and the patient. If I am a 2264 manufacturer selling a product, the \$.88 price that was 2265 talked about earlier, but as a pharmacist and as a patient 2266 2267 that I go to my pharmacy counter and know that I have to pay 2268 a co-pay of \$10 for that, there is more behind that in the insurance than the \$0.88 that my manufacturer got for selling 2269 that product. That needs to be researched further. 2270 *Ms. Kuster. And with the minute-and-a-half that I have 2271 left, is there anyone else that has any comment on how we can 2272

2273 lower the cost of specifically lower-cost generics and

2274 biosimilars?

2275 Anyone want to comment? No?

2276 Yes, go ahead.

*Dr. Barber. Thank you very much. That is a very

2278 important point.

When drugs come off patent, they generally decline in 2279 cost by, you know, between 99 and 95 percent. And then we 2280 2281 reach an equilibrium. And the concerns in this committee are is that equilibrium too low to support cost of manufacture? 2282 So the two things I would say is, one, we are tossing 2283 around a lot of numbers. Like, is \$0.88, okay? Is \$1.50 2284 okay? Like, we should know what the cost of manufacture of a 2285 2286 medicine is so we can then build in appropriate margins to ensure quality. That is the first thing I would say. 2287 2288 The second thing I would say in terms of ensuring access 2289 to generics, I think that there have been many actions recently in terms of acting on competition policy to ensure 2290 that we don't have collusion among generic suppliers. There 2291 have been some cases brought forward by ADGs. And so I think 2292 that is competition regulation and vigilance is an 2293 important element of a healthy generics policy. Thank you. 2294 *Ms. Kuster. Great, thank you. 2295 Would you like to comment? 2296 *Mr. Davis. Just briefly, Congresswoman, thank you for 2297 2298 your leadership on this issue.

I would just say, again, in the modern framework of the balance between the innovative ecosystem where the U.S. leads and, actually, the lowest cost generics, where the U.S. also leads, if we don't have a system where once that follow-on competition comes to market it is less expensive for the patient, then you can legitimately ask the question, "Why is there follow-on competition to begin with?''

2306 So we are very supportive of making sure that, as 2307 generics come to market, as biosimilars come to market, they 2308 are put in preferred positions on formularies to ensure that 2309 level of lower-cost access.

2310 *Ms. Kuster. Great, thank you.

2311 My time is up, and I yield back.

*Mr. Guthrie. Thank you. The gentlelady yields back.
The chair recognizes Mr. Bilirakis for five minutes.

*Mr. Bilirakis. Thank you, Mr. Chairman. I appreciateit. Thank you for the panel's testimony today.

2316 Mr. Coukell, I have concerns about the shelf life 2317 extension legislation noticed for today. It seems to allow 2318 FDA at any time for any reason to require manufacturers to 2319 conduct studies to lengthen the shelf life of a product and

2320	turn those studies over to the FDA, or else face a _ civil or
2321	criminal penalties.
2322	My understanding is manufacturers already currently
2323	collaborate with FDA to discuss expiration data. And in last
2324	year's end-of-year package, Congress required FDA to issue
2325	guidance on how to conduct shelf life extension studies that
2326	are scientifically supported. But we have yet to see a draft
2327	from this Administration.
2328	Could you comment on how stability data is currently
2329	generated, and whether extending it would reduce drug
2330	shortages?
2331	In your view, would requiring these studies help
2332	mitigate shortages?
2333	What are the current incentives around shelf life, as
2334	well, please?
2335	*Mr. Coukell. Thank you for that question, Congressman.
2336	A sterile injectable drug typically comes to market with
2337	a shelf life of two to three years. Much beyond that and you
2338	start to get concerned that you are going to get breakdown
2339	and impurities. So generally, going beyond that is not
2340	desirable.

Manufacturers do that study when they prior to first 2341 making the FDA submission, and then they continue to conduct 2342 stability studies on an ongoing basis as they go forward. 2343 2344 The if the market is working well, and a drug is coming to market with a two or three-year shelf life, then that drug is 2345 not expiring on the shelf. And indeed, expired drugs is not 2346 really a driver of the drug shortage problem we are 2347 discussing today. 2348

2349 So if the government is looking to have dating, you 2350 know, beyond three years on a product, probably what they 2351 should do is do what was referenced in the DoD program 2352 earlier, which is buy the drug, do their own studies, and 2353 they could own that risk. But otherwise, the shelf life 2354 system works pretty well right now.

Mr. Bilirakis. Thank you very much. The next question, again, for Mr. Caukell. Can you provide some specific examples of products you worry could go into shortage, based on their price, and why, please? Mr. Coukell. So we have had reference today _ thank you, sir, for that question _ to drugs selling for \$0.88 a vial. You know, there is a drug called Lorazepam. It is

2362 used as a sedative in surgery. It is used to interrupt epileptic seizures. It sells for less than \$1 a vial. It 2363 has been in shortage, been on the shortage list for 15 years. 2364 2365 And, you know, you pretty hard to buy an empty vial and fill it with sterile water for under a dollar. So I think 2366 that illustrates the sort of instability in the market when 2367 you are making a complex product that is priced at that 2368 level. 2369

There are other drugs. There is a drug used for nausea in cancer that is selling for well under a dollar. It is not in shortage now, but, you know, at a price like that, it will be someday, probably. And so, you know, it is relatively easy in one sense to predict shortages. The best predictor of a drug shortage in the future is whether that drug has been in shortage in the past.

And so we can look at the portfolio of essential drugs, which ones are low cost, which ones have been in shortage in the past, and really create a pretty strong priority list for where we need to invest to ensure resiliency.

*Mr. Bilirakis. Thank you for that answer. I
appreciate it. I have got a couple _ one more minute.

2383 Mr. Gaugh, how has the generic drug market changed over the last five years? 2384 Could you speak specifically to the number of genetic 2385 2386 excuse me, generic drugs getting approved and then marketed, as well as any recent bankruptcy announcements by generic 2387 drug companies, and if you believe drug shortages are 2388 improving or getting worse over the next year or so? 2389 Please, Mr. Gaugh. 2390 2391 *Mr. Gaugh. Yes. Thank you for the question. To kind of address all of that at once, it is getting 2392 2393 worse, and it is going to get a lot worse, in our opinion. 2394 So to your point about foreclosures, we know a company that closed in March, chapter 7, closed their doors, had to 2395 recall 75 products from that. Six of those were sole source 2396 products. 2397 At the same time, if you look at the number of 2398 manufacturers, somewhere between 250 and 350 I mentioned 2399 200 in my talking points because that is what we are able to 2400 validate, but per FDA it looks more like 350 companies. Of 2401 those, as I have said earlier, in the approval process 60 2402 2403 percent of those approved by the FDA never make it to market

2404 because there is no market to go to. So they typically, as we would say, dump their product and move on to another 2405 product, which can lead to shortage. 2406 2407 *Mr. Bilirakis. Thank you very much. Yes, thanks for the direct answers. 2408 *Mr. Guthrie. Thanks. 2409 *Mr. Bilirakis. Very knowledgeable. Thank you very 2410 much. 2411 And I yield back the balance 2412 *Mr. Guthrie. Thank you. The gentleman's time has 2413 2414 expired. The chair recognizes Ms. Kelly for five minutes. 2415 *Ms. Kelly. Thank you. Chair Guthrie and Ranking Member Eshoo for holding today's critically important 2416 hearing. 2417 Health systems, providers, and patients have all felt 2418 the strain of the most recent wave of drug shortages. 2419 Providers and hospitals, while still recovering from the 2420 effects of the COVID-19 pandemic, have seen several financial 2421 burdens and staff strain as workarounds are attempted to 2422 fulfill the patient need. 2423 2424 Furthermore, many patients have received inferior

treatment regimens, or even delayed treatment altogether, which has impacts on both mortality and morbidity. Numerous explanations for the shortages have been proposed and identified. Despite this, the lack of transparency about drug supplies from drug manufacturers persists as a critical factor.

Dr. Barber, a lot of the focus today has been on the generic, sterile, injectable drugs. Is there any reason why we should limit demand notifications to only generic, sterile injectables, or should this requirement apply to all drugs? *Dr. Barber. Thank you very much for this question. Yes, there is no reason to limit.

We talk about generic, sterile injectable drugs because they are the drugs that are more likely to be in shortage than other drugs. But other drugs are also likely being shortage.

If I may, I would like to very briefly counter a misconception that has come up a lot in this hearing about API transparency. On the one side, some people have said we don't have access _ the FDA doesn't have access to API data. And on the other, folks have said, okay, API is reported.

Both of these are true. The issue is companies are obligated to report the source of their API, but we don't necessarily know if that is the original source.

So for example, I may be manufacturing a finished generic, sterile injectable drug, and I am buying my API from a company that then buys it from another company, right? And so you may have a situation where four companies are manufacturing the finished product, and they are all buying API from the same two companies that are all, in fact, buying the same API from the same single factory.

So if you looked at the mapping from the FDA's data, you would say maybe there is four companies, maybe there is some redundancy, but we don't actually know that. And for drugs that have gone into shortage where we have done deep dives, we have found that there is, in fact, often times only this one single source. So I just wanted to clarify that because that has come up quite a bit. Thank you.

2463 *Ms. Kelly. Thank you.

And is it Mr. Ganio or Ganio?

2465 *Dr. Ganio. It's Ganio.

2466 *Ms. Kelly. Ganio?

2467 *Dr. Ganio. Yes, thank you.

Ms. Kelly. Thank you. Some of the testimony we have heard today suggests that the FDA is getting incomplete data on drug shortages. Under current law there is no requirement for reporting shortages caused by spikes in demand. One of the bills before us today, H.R. 3008, the Preventing Drug Shortages Act, would change that.

2474 How can earlier notification help FDA address drug 2475 shortages?

*Dr. Ganio. Thank you. That is a great question.
And right now the FDA is receiving reports of supply
interruptions. But as we saw over the past winter, there was
an increase in demand for amoxicillin and other antibiotics.
That increase in demand would give the FDA drug shortage team
more time to do their work, be an earlier signal.

The other way that would be beneficial is if another manufacturer is having supply issues and does not report to FDA, and other manufacturers begin seeing an increase in demand. It would give the FDA a little bit more notice that something is out of balance, and maybe there is a supply issue somewhere.

Ms. Kelly. And additionally, the 340B program plays a pivotal role to meet the health and social needs of marginalized populations, as well as the broader community, many of which would not otherwise be financially sustainable. I have facilities in my district of Illinois that rely on this program to provide quality health care to those that are in their service area.

2495 Some have claimed that the 340B program contributes to 2496 shortages. Did you see any evidence of this in your tracking 2497 of drug shortages?

2498 *Dr. Ganio. We are unable to find any link directly 2499 between the 340B program and drug shortages.

I can tell you that generic, sterile injectables are about 7 percent of overall purchase volume of 340B, and if you are looking specifically at drugs that are in short supply, those drugs make up less than 1 percent of 340B price savings.

2505 Where my co-panelist, Mr. Coukell, earlier said that 2506 that one percent would go unnoticed, I disagree that our 2507 hospitals and health systems that are providing care for 2508 underserved patients would notice that.

*Ms. Kelly. Thank you so much. Thank for your 2509 2510 response. I yield back. 2511 2512 *Mr. Guthrie. The gentlelady yields back. The chair now recognizes Dr. Joyce for five minutes for questions. 2513 *Mr. Joyce. Thank you for yielding, Chairman Guthrie, 2514 and to our panel for appearing here today on such an 2515 important topic. 2516 2517 Over the August break I heard from health care providers in my district as large as UPMC and as small as individual 2518 2519 practices about the acute shortages of both carboplatin and 2520 cisplatinum [sic]. We all recognize this as a serious issue with the potential to cause delays in care for patients which 2521 are ultimately detrimental to the outcomes, specifically when 2522 it comes to treating cancer. It is important today in this 2523 hearing that we are working on both short-term and long-term 2524 solutions to these issues, as I fear they will not be going 2525 2526 away any time soon.

I would like to thank my colleagues, Representative Griffith, Carter, and Harshbarger for their work on the use of pharmacy compounding to help solve some of these issues in

2530 the near term. These shortages are not a new phenomenon, and have [sic] caused by decades of poor policy decisions that 2531 have hollowed out the generic manufacturing capacity. 2532 2533 One of these occurred in 2015, when the Bipartisan Budget Act applied a brand drug rebate inflation penalty to 2534 generic drugs, despite significant market differences. While 2535 the penalty was originally established to control price 2536 increases for branded medications when the market had 2537 2538 exclusivity, it was improperly also applied to generics. Dr. Gaugh, since the Medicaid generics penalty was 2539 2540 passed in 2015, what impact have you seen in the generic market that has caused manufacturers to stop making certain 2541 generic drugs due to this policy? 2542 *Mr. Gaugh. So we have seen quite a reduction in 2543 company continuing to produce products in their portfolio. 2544 So, as you have seen in the press of late, we talked about 2545 one company going bankrupt. Several other companies have 2546 talked about reducing their portfolio of products so that 2547 they can "right size their business,'' and that is what you 2548

2549 are seeing happen because of that.

2550 *Mr. Joyce. So because of legislation, per your words,

2551 companies have decreased their portfolios and, unfortunately, some others have ultimately become bankrupt. 2552 *Mr. Gaugh. Correct. Other factors included, but yes, 2553 2554 that is part of it. *Mr. Joyce. Thank you. We have also heard some 2555 2556 companies that over 90 percent of the drugs they are paying the penalty on did not receive a price increase, and they are 2557 even paying the penalty on drugs when the price was lowered. 2558 2559 Can you walk us through how that would occur? *Mr. Gaugh. It is a difficult thing to walk through in 2560 2561 the 2 minutes and 13 seconds I have left. But yes, that can 2562 happen where you didn't increase your price, but the overall price of that particular product category came down, and 2563 yours appeared to go up, if that makes sense. 2564 *Mr. Joyce. It doesn't make financial sense. 2565 2566 *Mr. Gaugh. Right. *Mr. Joyce. And it certainly doesn't allow companies to 2567 continue to profit, or even maintain keeping the lights on. 2568 Finally, Dr. Gaugh, can you please explain how the 2569 inflationary rebates included in the Inflation Reduction Act 2570 2571 could further erode sterile injectable manufacturers' ability

2572 to invest in manufacturing improvements, or even simply in keeping the facilities up? 2573 *Mr. Gaugh. Thank you for the question, yes. So those 2574 2575 rebates are just added expenses, if you will, to a manufacturing company. 2576 2577 So with everything else that you are doing, the API, the finished dose production process, keeping the lights on, if 2578 you will, and then when you go to get your contract and the 2579 2580 additional inflation reduction is another penalty added into that. 2581 2582 *Mr. Joyce. Do you feel that the Inflation Reduction Act harmed the ability for manufacturers to continue 2583 supplying the needed generic drugs? 2584 *Mr. Gaugh. It can in the future because we are not 2585 quite there yet, as it is just being implemented. But yes. 2586 *Mr. Joyce. I thank all of our witnesses for testifying 2587 here today. 2588 And Mr. Chairman, I yield. 2589 *Mr. Guthrie. Thank you. The gentleman yields back. 2590 The chair now recognizes Mr. Sarbanes for five minutes for 2591 2592 questions.

2593 *Mr. Sarbanes. Thank you very much, Mr. Chairman. Thank you all. 2594 Before this life I was a health care attorney and I 2595 2596 represented, at different times, prescription drug manufacturers, generic drug manufacturers, pharmacy benefit 2597 managers, hospitals, physician groups, pharmacies. As a 2598 result of that, I gave up a long time ago thinking I would 2599 ever be able to understand drug pricing. And that situation 2600

2601 gets worse by the day.

A number of you have commented on the lack of transparency, the need to get more data at our collective fingertips. But certainly, I think the agencies that are in this space need to have that data in order for us to get better results on a whole variety of things, including managing drug shortages.

Dr. Barber, who benefits from lack of transparency right now the most in this vast chain that is being described here today would you venture to say?

2611 *Dr. Barber. Thank you for that interesting question.
2612 I don't really want to ascribe intentions when we are
2613 talking about markets and how, you know, incentives are set.

2614 But if you, you know, look at it objectively, when government has to negotiate for drug prices, when patients have to 2615 access drugs and they can't afford them, and one party is 2616 2617 blindfolded, they don't know how much drugs cost to manufacture, they don't know how much margins would be 2618 necessary in the supply chain to ensure quality manufacture, 2619 they don't know what profit margin is fair in terms of 2620 incentivizing market entry but not resulting in wastage or 2621 2622 expenditure, one side knows those numbers, the other side doesn't. 2623

2624 So I would say that it benefits industry, the lack of 2625 transparency benefits industry.

*Mr. Sarbanes. Yes. Well, I think that the fact that 2626 we still have so that it is still so opaque, there is still 2627 so many black boxes in the system, even though the interest 2628 in this area is as high and as intense as it is, is evidence 2629 on its face that somebody is trying to hide the ball, which 2630 makes it difficult for government acting on behalf of the 2631 public and our constituencies to get the right solutions 2632 2633 here.

You talked about the fact that raising prices alone

2634

2635 certainly isn't going to solve the manufacturing shortage on the generic side, and without other strategies isn't going to 2636 solve the problem of quality and reliability. Can you talk 2637 2638 about that a little bit more, and what how you would structure, let's call it investment, not just pricing, but 2639 investment to ensure that the dollars flow towards quality 2640 and reliability, and that the system can't be further gamed 2641 at that stage so that you still have manufacturers 2642 2643 contributing to these shortages because of the quality and reliability deficit? 2644

2645 *Dr. Barber. Thank you very much. That is a very 2646 important point.

So prices, when we talk about the prices are too low, manufacturers can't compete, you raise a very important point that there is importance that we get value for money. We need to know what the price is going for, rather than just wholesale allowing, you know, higher prices and not necessarily getting that accountability.

2653 So the things that I have proposed in my written 2654 testimony _ I am happy to follow up later _ are ideas. 2655 I would recommend pilots. So, for example, with

appropriate data FDA and CMS could rate generic manufacturers by the resilience of the supply chain, and then that rating could be incorporated by payers to adjust reimbursement for generic drugs appropriately, in a similar way as value-based modifiers adjust payments to providers based on the quality of medical services provided.

Another option is we could have CMS require 2662 manufacturers to provide data around supply chain quality and 2663 2664 resiliency, and then adjust reimbursement through the CMMI. And the CMMI should be given flexibility to pilot varied 2665 2666 approaches without restriction from Congress, and provide public evaluations of such approaches towards informing more 2667 long-term implementation to effectively address drug 2668 shortages. 2669

2670 *Mr. Sarbanes. Thank you.

2671 Mr. Coukell, in two seconds, should there be more 2672 companies like yours?

2673 *Mr. Coukell. We are not trying to replace the 2674 traditional industry, but I think there is a role for our 2675 model to help solve problems.

2676 *Mr. Sarbanes. Thank you, and I yield back.

*Mr. Guthrie. Thank you. The gentleman yields back. 2677 The chair recognizes Mr. Carter for five minutes for 2678 questions. 2679 2680 *Mr. Carter. Thank you, Mr. Chairman. This is an extremely important hearing. 2681 Mr. Davis, I would certainly be remiss if I did not 2682 thank you for the opportunity to speak to your group earlier 2683 this week. Thank you for that, and thank you for being in 2684 2685 our district. I appreciate that. Folks, we all know what is going on: 240 drugs right 2686 now in shortage, 240, anything from cancer drugs to Tylenol. 2687 This is something that has got to be addressed. 2688 I don't think it is any coincidence. It has been 2689 mentioned numerous times during this hearing, the coincidence 2690 that we have a sharp rise in consolidation in our health care 2691 industry with a shortage of essential medications. I think 2692 that that is more than just coincidence. In fact, I think it 2693 is one of the reasons why. 2694

As you know _ and all of you know this _ 80 percent of the market right now is controlled by 3 PBMs, 3 pharmacy benefit managers control 80 percent of the market. And that

2698 is _ that, to me, is a big problem, and we need more 2699 competition in that area.

2700 We have also seen an increase in hospital consolidation. 2701 We have had over 1,800 hospitals merge in _ since 1998 and _ 2702 between 1998 and 2021. As a result of that, we have got 2703 2,000 fewer hospitals than we had at that time. So 2704 consolidation is a concern.

And when we look at the GPOs and the distributors, we see just 3 companies controlling almost 90 percent of the market.

2708 Mr. Ebert, I will start with you. In markets like this, 2709 this consolidation has posed significant problems, especially 2710 when, according to some reports _ and you have seen them, 2711 just like I have _ that for every \$100 spent on a generic 2712 drug, \$44 goes to a middleman, goes to a PBM. Can you 2713 comment on the consolidation within your respective industry, 2714 and what impact it has had?

2715 *Mr. Ebert. Thank you for the question. There has been 2716 consolidation in the industry. However, if you take a look 2717 at the definitive health care database that is out there, it 2718 does identify that there is a number of opportunities for

2719 pharmaceutical manufacturers to participate.

That database identifies over 150 entities in that in 2720 the GPO, if you will, market space, national GPOs as well as 2721 2722 other regional cooperatives that participate in that arena. And those include a number of organizations that work with 2723 GPOs, but they do their own contracting. It is quite 2724 flexible for them to contract on their own, and at the same 2725 time there are opportunities within the GPO contracts for 2726 them to buy on their own. 2727

I do believe, and I still believe

2729 *Mr. Carter. There may be opportunities, but I am not 2730 sure it is that easy to do.

Mr. Ebert. Well, there are opportunities, and they are relatively _ you have to work at it. There is no doubt about it. But at the same time, there are other organizations such as the Department of Defense, large hospital systems that contract. There are other organizations such as

2736 pharmaceutical distributor source lines _

2737 *Mr. Carter. Right.

2738 *Mr. Ebert. and programs.

2739 *Mr. Carter. Right.

2740	*Mr. Ebert. There are oncology GPOs. There is a number
2741	of opportunities to do so _
2742	*Mr. Carter. Okay.
2743	*Mr. Ebert that they should be able to access.
2744	*Mr. Carter. Okay. Mr. Davis, I am going to ask you
2745	the same thing in your industry and the distributors. What
2746	kind of impact has consolidation had on the availability of
2747	essential medicines?
2748	*Mr. Davis. Yes, thank you for the question,
2749	Congressman.
2750	So we are an industry that has experienced
2751	consolidation. But I would actually say in the last 15 years
2752	I am only aware of sort of one significant level of
2753	consolidation within our membership. We do, as you know,
2754	have 3 very large, national-scale members and then 32 what we
2755	would refer to as generally regional distributors.
2756	I would like to just address one thing specifically. We
2757	have heard in both the policy debate and the business debate,
2758	there are some that said if you don't get a contract with one
2759	of the three largest distributors, it really compromises you.
2760	I can assure you on behalf of the 32 other members, many of

whom either predominantly or exclusively focus on generic drug distribution, that there is a distributor market that is waiting for you. And if any generic manufacturer needs contact information, they can call me and I will put them in touch with the rest of them.

*Mr. Carter. Okay, thank you.

Dr. Gaugh, let me ask you. What about consolidation among purchasers of generic drugs? Has that led to any unsustainable low prices for manufacturers, which in turn leads for drug shortages?

*Mr. Gaugh. So from our viewpoint _ thanks for the question _ from our viewpoint, yes, absolutely. So as I mentioned earlier, 60 percent of the ANDAs approved by the FDA don't make it to the market

2775 *Mr. Carter. Right.

Mr. Gaugh. _ because there isn't an outlet to go to.
Mr. Carter. Right. I hope all of you saw the article
that was in the Wall Street Journal earlier this week about
generic drugs should be cheap, but insurers are charging
thousands of dollars for them. It talks about Gleevec, which
I dispensed a bunch of when I was a practicing pharmacy,

2782 about the price of it being almost \$6,600, yet now you can buy it as cheap as \$55. But still, the PBMs are charging 2783 \$6,600. They are gangsters. This is robbery. 2784 2785 Thank you, Mr. Chairman. I will yield back. *Mr. Guthrie. Thank you. The gentleman yields back. 2786 The chair recognizes Dr. Schrier for five minutes for 2787 questions. 2788 *Ms. Schrier. Thank you, Mr. Chairman. Thank you to 2789 2790 the witnesses. I have really enjoyed listening and learning from this conversation today. 2791 Just for context, that "Dr.'' was a reference to the 2792 fact that I am a pediatrician. So I have gotten 2793 notifications about drug shortages for years. But I will 2794 tell you, this year is the first where I have been getting 2795 stopped at the supermarket, on the street, at the gym, with 2796 people telling me that they can't get their chemotherapy 2797 drugs, that it is you know, they are getting 80 percent of 2798 the dose, parents are telling me they can't get their child's 2799 ADHD medication. And that is pretty disastrous, both 2800 academically and if you have a young driver. So these are 2801 2802 important medications.

2803 The Fred Hutchinson Cancer Center is in the greater 2804 Seattle area. They are having to delay stem cell transplants 2805 because they can't get some of the agents cheap. I mean, 2806 these are not expensive drugs, but they are a necessary 2807 precursor to a transplant.

And we have heard today from all of you about, really, 2808 the nuance and complexity of drug shortages and what is at 2809 the root of them. I think, though, that we can all agree in 2810 this room that it is really never going to pencil out 2811 economically for an American company to invest millions in 2812 2813 manufacturing medicines like amoxicillin, Lidocaine, 2814 methylphenidate, saline, sterile water, and yet they are indispensable and used every single day in doctors' offices 2815 and hospitals. 2816

I thought I might just float an idea. This is inspired by Operation Warp Speed, which I thought was a beautiful collaboration between the Federal Government and industry, it de-risked the procedure. It said if you are successful, we will contract to buy a certain amount of this medication. And I just wonder if there is a role in manufacturing medications.

And what I am imagining and I am going to have some of 2824 you comment on this is could the Federal Government stand 2825 up a sort of generic manufacturing facility? It is open to 2826 2827 any manufacturer who is willing to make whatever drug is in shortage at that time. The University of Washington has 2828 something like this for scientific innovations. The very 2829 expensive machinery is here. You can come and rent it, and 2830 reserve it, and do your research, and take it back to your 2831 private company. 2832

And I am just thinking that this might be a way I 2833 mean, this is kind of like Civica, but Civica is funded by 2834 2835 philanthropists, which makes me, like, on the broader scale, a little nervous to depend on charitable contributions. And 2836 I think the Federal Government could have a role here. 2837 We stand up the facilities, incentivize in some way the 2838 manufacture of these medications, and companies can turn a 2839 2840 profit without having to make major investments.

And so I would love to hear this. I am just going to, for fun, start with Mr. Coukell, because you have had some experience here, go to Dr. Barber if possible, Mr. Gaugh, and Mr. Ganio for your comments. So pace yourselves. Two

2845 minutes left.

Mr. Coukell. Thank you for that question, and just one point of clarification, that the capital to start Civica came from philanthropies and hospitals. The organization is self-sustaining. So I want to clarify that about the model. But to your point, where could the capital come from to start an enterprise like that? And I think government can absolutely be a part of the solution.

2853 In particular, we could look at categories of drugs that we don't make in the United States anymore. We could look at 2854 2855 penicillin and cephalosporin antibiotics, for example, many of which are on shortage. At today's prices there is no 2856 commercial enterprise that could invest the capital to create 2857 a new manufacturing facility for those drugs in the U.S. 2858 So if we want them here for supply chain security or national 2859 security, it is going to take some kind of partnership. 2860

*Ms. Schrier. And if we want to use low-level antibiotics to avoid antibiotic resistance, we have got to have amoxicillin and low-level cephalosporins.

2864 Okay. Next, Dr. Barber.

2865 *Dr. Barber. Thanks so much for this great question.

2866 The United States has manufacturing capacity, and we have immense resources and great researchers. There is 400 2867 process scientists on staff at NIAID that could and that are 2868 2869 working to improve manufacturing processes to make them more efficient. The U.S. has capacity to manufacture drugs which 2870 they use for the clinical trials. The capacity is there. 2871 I think your question is important: How can we expand 2872 it? And I do support a robust public option, and it has a 2873 long history in the United States. A state-owned company, 2874 for example, from Congresswoman Dingell's great state of 2875 2876 Michigan, manufactured anthrax and rabies vaccines for 2877 decades.

I believe there are no members from New York on this subcommittee, but the New York State Public Health Department manufactured diphtheria antitoxin.

The State of California, represented by Congresswomen Eshoo and Barragan and Congressmen Ruiz and Cardenas, is exploring public manufacture of insulin.

It is not a future dream that we can have public manufacturing. Public manufacturing has existed. It has worked, and it should be expanded. Thank you.

2887	*Ms. Schrier. Thank you. I have to yield back because
2888	of time, but I would love answers in writing.
2889	[The information follows:]
2890	
2891	*********COMMITTEE INSERT********
2892	

2893 *Ms. Schrier. Thank you.

2894 *Mr. Guthrie. Thank you. The _ Dr. Schrier yields 2895 back. The chair now recognizes Mrs. Harshbarger for five 2896 minutes for questions.

*Mrs. Harshbarger. Thank you, Mr. Chairman, and it is a pleasure to see four pharmacists on the panel today. I appreciate that.

By now you know I am a compounding pharmacist, and we 2900 2901 have had drug shortages as long as I have I have been in practice, and that is over three decades. And it is critical 2902 2903 that Congress work with stakeholders and Federal agencies to 2904 find solutions to the problems. That is where I have stepped in many times over my career as a compounder to deliver those 2905 drugs when we had shortages, whether it was to facilities or 2906 to physicians, patients, whatever. 2907

Now, there has been a lot of talk about the sourcing of APIs. The FDA is requesting from Congress new authorities to mandate that drug manufacturers and repackagers of APIs include information regarding the original manufacturer, the unique facility identifier on APIs, on finished drug products, and on the label of bulk drug substances.

2914	But it is also my understanding that the FDA already has
2915	access to this information as a result of various regulations
2916	and reporting requirements. And I recently sent a letter to
2917	FDA Commissioner Caleb posing a number of questions to better
2918	understand the FDA's legislative proposals so that we can
2919	work together on a potential workable solution.
2920	And, Mr. Chairman, I ask unanimous consent to submit
2921	into the record a copy of this letter.
2922	*Mr. Guthrie. I see no objection.
2923	[The information follows:]
2924	
2925	********COMMITTEE INSERT********
2926	

2927 *Mrs. Harshbarger. Okay, thanks.

And I think it is particularly important, the solutions to drug shortages put forward by Chair Rodgers's discussion draft, and especially Rep. Griffith's H.R. 167, which is the Patient Access to Urgent-Use Pharmacy Compounding Act.

And you know, many people don't know what compounders 2932 do. And per the FDA we have been divided into two different 2933 facilities, 503As for traditional compounders, 503Bs that are 2934 2935 outsourcing facilities. And some two percent of prescriptions filled each year are compounding medications, 2936 2937 and these are customized medications that meet a patient's 2938 specific need, and it is written by a prescriber. And we use all different modalities to fill that gap in health care. 2939

The 503A compounding pharmacies, which are traditional, provide individual physician-prescribed drug products designated for a patient, and they are primarily regulated by state boards.

Now, 503B drug products are produced in outsourcing facilities, or CGMP facilities, and they are produced by bulk APIs, and are readily available for ambulatory care centers, hospitals, other health care systems. And they are regulated

2948 by the FDA. Our main discussion drafts today include flexibilities for 503B outsourcing facilities to help fill 2949 that gap, and also Rep. Griffith's bill will add 2950 2951 flexibilities with guardrails for 503A facilities to provide urgent use of drug shortages to these patients. 2952 You know, and you tell me if you agree, because lack of 2953 access is a patient safety issue. Do you agree? Just shake 2954 your head, yes or no. 2955 2956 Do you also agree that a delay in providing a medication can cause patient harm? 2957 2958 It does. It does. So that is why I support Rep. 2959 Griffith's bill and everything we are doing on this 2960 committee. Mr. Coukell, is your facility you were talking about 2961 your facility in Petersburg. Is that a 503B facility? 2962 *Mr. Coukell. No, ma'am. That is a facility that will 2963 approve manufacture FDA-approved drugs. 2964 *Mrs. Harshbarger. Okay. So you have to go through the 2965 whole process, the IND and all that. Okay. In your view, 2966 what should be our national strategies for developing the 2967 2968 ability to predict and prevent drug shortages?

2969 *Mr. Coukell. Thank you for that question. I think that we can look at a variety of data in terms of market 2970 consolidation, quality history, and so on. But the strongest 2971 2972 predictor of a future shortage is a past shortage. And if we go down the list of essential drugs and look at which ones 2973 have been in shortage over the past decade or so, it gives us 2974 a pretty strong risk of indication of where the risk is, 2975 going forward. 2976

2977 *Mrs. Harshbarger. Yes.

*Mr. Coukell. To give you a sense, I said Civica is providing 80 drugs today. Half of them are on the ASHP drug shortage list right now, which tells you it is quite possible to predict the ones that are at risk.

2982 *Mrs. Harshbarger. Well, ASHP has a more complete list 2983 of drug shortages than even the FDA does. And you know as 2984 well as I do, being a pharmacist, we have seen drugs on and 2985 off lists for 10 to 15 years, as somebody said earlier. Now, 2986 why is that?

Do you know approximately how many of the drugs currently in shortage and in shortage over the past five years are manufactured or sourced through APIs primarily from

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2990 China and India?
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Mr. Coukell. I do not know that number, Congresswoman.
We know, overall, that a substantial share of the world's
supply of API comes from those two countries.

2994 *Mrs. Harshbarger. Probably over 90 percent.

And I know my time is up, so I will yield back.

Mr. Guthrie. The gentlelady yields back. The chair now recognizes Mrs. Trahan from Massachusetts for five minutes for questions.

*Mrs. Trahan. Well, thank you, Chair, and thanks to the 2999 3000 ranking member, as well, for holding this timely hearing. While I am pleased that there are some bipartisan bills 3001 to address drug shortages included, I am disappointed in the 3002 approach that my colleagues' discussion draft aims to take, 3003 and hope they work with Democrats to introduce a package that 3004 takes a more sustaining approach to addressing drug 3005 shortages. 3006

You know, many of us have heard the pleas from our constituents back home for us to address this issue. As Dr. Schrier mentioned, we have heard from parents whose kids cannot take their Adderall prescriptions filled to help them

3011 focus. We have heard from constituents whose mothers and 3012 fathers cannot access the appropriate chemo drug for them, 3013 causing unnecessary side effects.

Drug shortages have disrupted the lives of too many Americans. And instead of passing legislation to help these families, my Republican colleagues included policies in their discussion draft that may end up incentivizing prolonged drug shortages.

It is no question that drug manufacturers are not fans 3019 of the 340B program, and there is no clear data that 340B is 3020 3021 a driver of drug shortages. However, the provisions in 3022 today's discussion draft may incentivize manufacturers to prolong shortages if it means that they don't have to 3023 participate in the program. This is not the right approach, 3024 and we must take a more rigorous and thoughtful approach 3025 immediately. 3026

You know, as a co-founder and co-chair of the Congressional Pandemic Preparedness Caucus, I am particularly interested in what we need to know to prepare for a future pandemic. So, Dr. Ebert, what are some of the main supply chain vulnerabilities that you discovered during the peak of

3032 the COVID pandemic?

And could you share those lessons learned, particularly 3033 as we look to address drug shortages and reauthorize PAHPA? 3034 3035 *Mr. Ebert. Thank you for the question. During the pandemic there was a lot that was identified relative to some 3036 of the issues that were out there. And many times it is a 3037 function of what information you need, or what information is 3038 available, what is available. In fact, the group purchasing 3039 3040 organizations work very closely with Federal Government and others relative to where supplies were throughout the 3041 3042 country, and to distribute those products throughout the rest 3043 of the country, where needed, as the pandemic would shift as 3044 we go forward.

3045 So information about where products are is extremely 3046 important. Also, information relative to the best treatments 3047 and best treatment protocols are important for us, as well. 3048 But we have been actively engaged in trying to work with the 3049 manufacturers relative to information regarding their 3050 products and where they are sourced at, so that we can better 3051 predict what is needed as we go forward.

3052 *Mrs. Trahan. Thank you for that. You know, I am going

to switch gears because a 2019 study by Vizient found that managing drug shortages cost hospitals and health care systems an estimated \$359 million per year in labor, not including the impact on patients from delayed and canceled procedures caused by shortages of drugs and essential supplies.

In addition, on average, hospitals in the United States dedicate more than 8.6 million hours of additional labor time annually to manage drug shortages. And these figures are particularly concerning as we think about the workforce shortage that we have seen across the health care sector.

3064 So, Dr. Ebert, in the event of a drug shortage, besides 3065 getting hospitals access to the product itself, what are some 3066 of the additional needs of hospitals that Congress should 3067 consider?

Mr. Ebert. Well, the biggest issue is a quality and stable supply. That is what they are looking for, and that is what we hear on a routine basis. Hospitals recognize and depend upon GPOs to do the sourcing evaluations relative to quality and quality products that they serve.

3073 The other key thing is open line of communications to

where products may be and to manufacturers. GPOs are well versed, and have great partnerships with all manufacturers to identify where issues are and how they can potentially help us.

And then GPOs, many GPOs, also have buffer stocks, as we have heard about in the discussion today. So that for critical medications those buffer stocks are available, not just for one particular GPO that can be used for many organizations that may not belong to one GPO, but they are available for others that need that product for use.

3084 *Mrs. Trahan. Thank you.

And Dr. Coukell, you discussed in your testimony the potential for the government to take action to assist domestic manufacturers to ensure that they meet the standards set by the FDA and are prepared to produce essential medications as soon as a shortage begins. Could you just describe the program, and why that would be a good investment for us to make?

3092 *Mr. Coukell. Thank you for that question. Let me 3093 start by saying that once a drug shortage starts, it is 3094 really hard to stop. And if we are looking for a

3095 manufacturer to enter the market with a new FDA-approved 3096 drug, that has a timeline of several years. And so that is 3097 clearly not a quick solution for drug shortages.

But if we had been _ and we talked earlier about drugs that are so low in price that you can't competitively make them right now in the United States. So a manufacturer is unlikely to spend the money to have that drug ready to go if and when it goes into shortage.

3103 But if the government were to fund some targeted ANDA development, so the manufacturer went through the FDA process 3104 3105 and had that there in reserve so that when that drug goes 3106 into shortage and we could predict which drugs will go into shortage with reasonable accuracy we would be ready to 3107 start production right away. That would be a really, what 3108 that program would cost is less than what we would pay today 3109 to end, you know, just one high-profile drug shortage. 3110

3111 *Mr. Guthrie. Thank you.

3112 *Mrs. Trahan. Thank you. Thank you.

3113 *Mr. Guthrie. Thank you, the gentlelady yields back.
3114 The chair recognizes Dr. Dunn for five minutes.

3115 *Mr. Dunn. Thank you very much, Chairman Guthrie.

Now let me say I am very glad that our subcommittee is addressing the topic of generic shortages today. I appreciate the chair's discussion draft, and look forward to supporting efforts to address generic drug shortages on the supply side.

The Stop Drug Shortages Now Act takes important steps to unleash innovation and correct distorted markets. It seeks to examine how existing FDA authorities address shortages, and will also speed the inspections that the FDA engages in. There are many players in the generic drug supply chain, and I appreciate all of our witnesses who represent those entities here today. Thank you.

3128 Some of the proposals before us today seek to increase 3129 regulation, or give the FDA additional authorities related to 3130 reporting requirements and data collection. However, I think 3131 we have seen the failure of the FDA firsthand. Just look at 3132 the baby formula crisis. I think it is clear that empowering 3133 three-letter agencies is not going to solve our problem.

We need to examine policies that fix the supply side and embrace the free market in order to address these root causes. Policies that speed generic drugs' entry to the

3137 market and support generic manufacturing capacity, that is 3138 what we need.

We also need to empower compounders who can nimbly address shortages. And to do that we have to cut their red tape, as well, holding them back from answering the call to shortages when they occur.

And these shortages, by the way, are constant and they 3143 are chronic. The same drugs that are short right now were 3144 short when I was doing surgery 10 years ago. There is and 3145 more. And more, let's say. But there is no surprises there. 3146 3147 I am proud to be a cosponsor of Mr. Griffith's bill, 3148 H.R. 167, which enables 503A compounding facilities to produce drugs in urgent circumstances without jumping through 3149 all the FDA-required hoops. So we need to remove red tape to 3150 allow industry to quickly move ahead and not give more red 3151 tape to them. 3152

I do have serious concerns with H.R. 3008, which would compel manufacturers to comply with additional FDA reporting requirements regarding disruptions to supply. This bill actually is highly prescriptive, and would bog down manufacturers with gathering and reporting data that may not

even be useful or indicative of a shortage. For example, this bill requires reporting on increased demand that is sustained for six weeks or more. You know, there are increases and decreases in demand all the time that are caused, you know, by all kinds of reasons other than shortage.

So to that end, I have a few well, let's see, I 3164 actually wanted to start with Mr. Ebert, if I may. 3165 3166 I used GPO contractors back in the day when I was running my practice. In some cases I was able to negotiate 3167 3168 directly with suppliers, but many cases, perhaps most cases, 3169 I leaned on your industry, and I did so for good reason. Ι could practice medicine, and you could get me a cheaper 3170 price. Tell me how GPOs have evolved from being just a price 3171 and a catalog, and sort of walk me through that value 3172 proposition, if you would, please. 3173

*Mr. Ebert. Thank you for the question. GPOs over the years have evolved tremendously. They have invested a tremendous amount of time and expense into enhanced services, and those services could include anywhere from significant data analytics to help customers, providers understand where

there are opportunities to save money just based upon their operations and procedures, as well. They have spent a lot of time relative to supply chain benchmarking, again, using the data that they do collect.

Also, one of the key things is they are able to work with their membership to share and identify best practices, not only from the standpoint of materials management or supply chain, but also we work very closely with clinicians and certain components of the health care supply chain.

3188 So there is a number of things that we have done. And 3189 at the same time, as I have said before, we have great 3190 contacts and great opportunities to work with manufacturers 3191 so that we can understand what is going on in the industry 3192 relative to the shortages. We may not be able to solve them, 3193 but at least try to understand and help them to reduce 3194 shortages as much as we possibly can.

Mr. Dunn. I think _ and I would note, without going too much into it, that I think the GPOs also have transparency requirements that actually set them apart from other members of the supply chain.

3199 I am going to Mr. or Dr. Gaugh, I am sorry, the FDA

3200 already requires drug manufacturers to report when there is interruption in manufacturing. Additionally, the agency 3201 recommends that companies notify the FDA when there is a 3202 3203 sudden, unexpected spike in demand, even when it is not due to a manufacturing issue. Is does this make sense? 3204 *Mr. Gaugh. Thank you for the question. We believe 3205 that and especially under the Cares Act that the FDA has 3206 all the data that they need. So we are reporting data from 3207 our quarterly manufacturing on an annual basis. That gives 3208 them the API source, the API usage, the finished dose, 3209 3210 source, and usage, and we think to have all the information 3211 they currently need. *Mr. Dunn. Thank you very much. I see I am over on my 3212 time. 3213 Thank you very much 3214 *Mr. Guthrie. Thank you. The gentleman 3215 *Mr. Dunn. for your indulgence, Mr. Chairman. 3216 *Mr. Guthrie. The gentleman yields back. The chair now 3217 recognizes Dr. Miller-Meeks for five minutes. 3218 *Mrs. Miller-Meeks. Thank you, Mr. Chairman, and I 3219

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thank all of our witnesses for testifying before the

3221 committee today.

I am a physician, former nurse, and also the director of the Iowa Department of Public Health when we were not in a pandemic.

The impacts of drug shortages on patients can't be overstated. In a RAND study conducted after a shortage, there was an observed decline in drug volume between 28 percent and 35 percent, compared to the year before the drug entered the shortage. And I think that was alluded to earlier.

The reduction in volume of generic drugs _ drug fills was larger, with a median of 37.6 percent compared to brandname drugs experiencing a shortage, which saw a median of 30.4 percent. Patients in rural Iowa, who already face significant challenges when it comes to accessing quality health care, have been hit hard by recent drug shortages, and this includes our rural critical access hospitals.

While the cause of the issue is multifaceted, there appears to be general agreement that economic challenges, especially in the generics market, are a major factor. Because generics manufacturers compete with one another on

3242 price, at some point it results in diminishing return on investment. If a price gets too low, multiple manufacturers 3243 might leave a particular market. Or if there is a single 3244 3245 API, which was alluded earlier, it might leave the market. And if the one remaining supplier is hit with a disruption, 3246 such as a lack of API, water contamination, natural 3247 disasters, et cetera, there is a resulting shortage. 3248 So I have a question. Is there a correlation of past 3249 drug shortages since this was brought up and 3250 reimbursement for that particular drug to the manufacturer, 3251 3252 i.e. like we have done in the rest of health care, especially

3253 government-run health care, be Medicare or Medicaid? If we 3254 are setting the price for reimbursement too low we get 3255 shortages. Can you just go down the line? Is there any 3256 correlation? Yes, no, or you don't know.

Mr. Gaugh, I will start with you, and we will go that way.

*Mr. Gaugh. Thank you for the question. Yes, we do believe there is a correlation. And earlier in the hearing it came up, and we said there are many aspects to this as you go through the start to finish, so the manufacturer to the

3263 patient. And we are going to send back a document that a schematic document that maps all of that out. 3264 *Mrs. Miller-Meeks. Mr. Coukell. 3265 3266 *Mr. Coukell. Numerous authoritative reports have examined the root causes of drug shortages, and they all 3267 conclude that price is part of the problem. That is not to 3268 say that government programs are creating drug shortages, but 3269 that erosion of margin is not helpful. 3270 3271 *Mrs. Miller-Meeks. Dr. Barber. *Dr. Barber. I agree that there is no evidence that 3272 3273 government programs are creating erosion, but price is always 3274 relevant. We have chosen a system where generic manufacturers can 3275 *Mrs. Miller-Meeks. Thank you very much. 3276 *Dr. Barber. price, but there are other options. 3277 *Mrs. Miller-Meeks. Mr. Davis. 3278 *Mr. Davis. As we all see, it is a very complicated 3279 ecosystem, but we would agree with the assessment, 3280 3281 Congressman. *Mrs. Miller-Meeks. Mr. Ebert. 3282 3283 *Mr. Ebert. As Mr. Davis said, it is complicated.

3284 However, our concern many times is payments don't always make it down to the source of where they where you want them to 3285 go. For example, to the generic manufacturers. 3286 3287 *Dr. Ganio. And I agree. I think we have already established the root causes involve market incentives. But I 3288 3289 think we have to be careful not to just throw money at the problem, and make sure those investments are going toward 3290 quality. 3291 3292 *Mrs. Miller-Meeks. Yes, my point is not to throw money at the problem. My point is to make that correlation, which 3293 3294 we know exists. We have the same you know, we just put forth in 3295 Congress a bill last year in order to subsidize chip 3296

manufacturing, to bring it back to the United States. Are we 3297 doing the same thing to other industries? And my concern 3298 with the public option is that because we are underpaying 3299 what it costs to make a generic drug, what it costs to stay 3300 in business having been a small business owner and pay 3301 property taxes, which private businesses pay, that we will 3302 then subsidize another type of industry, and will end up 3303 3304 paying more than we would pay if we were fairly reimbursing.

3305 That is the point that I am making.

Mr. Gaugh, in your written testimony you highlight how prevalent generic medications are, stating that over 90 percent of prescriptions filled today are done so using generics. Can you highlight how drug shortages impact the generic markets differently?

And part of this will be some correlation or some effect of the IRA, as well, and whether there are specific factors that lead to generic shortages.

*Mr. Gaugh. Thank you for the question. And yes, we are going to go right back to reimbursement as being the factors that lead to the drug shortages.

So you can look today at cisplatin, which was we 3317 understand this week that it has been resolved, but it is 3318 still an ongoing issue. In that particular case there were 3319 seven companies that make cisplatin. It was down to only 3320 three when the drug shortage occurred, and so the other four 3321 weren't able to come back. Hence, the drug shortage. 3322 When one company has 50 percent of the market and goes out of the 3323 market, you just can't catch up fast enough. 3324

3325 *Mrs. Miller-Meeks. Thank you, sir.

3326 With that I yield back.

3327 *Mr. Guthrie. Thank you. The gentlelady yields back.

3328 The chair recognizes Mr. Obernolte for five minutes.

Mr. Obernolte. Thank you very much, Mr. Chairman, and thank you to all of our witnesses for this hearing on what is an extremely important topic.

Over the August break I met with my health care advisory 3332 board, which includes representatives from all of the 3333 hospitals in my district, and the shortage of certain drugs 3334 was the number-one issue for most of them. I heard about 3335 3336 shortages of sedatives, of anesthetics, chemotherapy drugs, 3337 which I know we have in common with a lot of hospitals, but also about epinephrine, which surprised me. And they let me 3338 know in no uncertain terms just how important solving this 3339 problem is to them. 3340

3341 Dr. Ganio, I read something really interesting in your 3342 testimony that I wanted to follow up on. One of the 3343 recommendations that you made is that the FDA finalize 3344 metrics for quality management maturity, and then require 3345 suppliers to report those metrics. And in doing so, that 3346 would create information that is publicly available that

3347 would allow purchasers to prioritize purchases from 3348 manufacturers that were less likely to experience shortages 3349 in drugs in the future.

But I mean, I also have to admit being a little skeptical, because that ignores the complications of drugs where there is only a sole source, that ignores situations where unpredictable demand has caused a shortage, rather than any error in forecasting on the side of the manufacturer.

3362 So could you talk a little bit more about that, and give 3363 us some hope that maybe that could be a possible solution to 3364 this problem?

*Dr. Ganio. Sure. And I will refer back to the FDA's root causes report that established a lack of market incentive for quality manufacturing as a root cause of

3368 shortages.

And Mr. Gaugh had just previously cited cisplatin had 50 percent of the market. But when you read the inspection report from that plant inspection, if that doesn't terrify you then I don't know what would.

3373 So if the purchasers who built up 50 percent of the 3374 market share for that company knew what they were investing 3375 their money in, would they have then continued to buy from 3376 that company, or would they perhaps have bought from another 3377 company?

3378 So that is where we feel like the transparency into 3379 quality _ the QMM program is a pilot that the FDA has been 3380 working on. It looks at a culture of quality, not just a 3381 particular manufacturer's specific supply line. And we think 3382 that gives purchasers that additional information to know, 3383 okay, this is the cheapest product, but maybe it is not the 3384 best investment for me to buy at this time.

*Mr. Obernolte. So just playing devil's advocate, isn't there already a market mechanism for that? Because if you are a manufacturer who is willing to have invested in a more robust supply chain that is less susceptible to disruption,

couldn't you evangelize that fact to potential buyers, and use that to justify a higher price for your product, and use that as a competitive advantage without the intervention of the FDA?

*Dr. Ganio. Well, that is where we hope that the market forces continue to encourage competition. And if everyone is rising up to the standards that we would expect to see in a QMM program, then hopefully we are leveling the playing field and price competition comes back to where it should be.

3398 But without that transparency and equality, it is not a 3399 level playing field, and purchasers are just simply buying 3400 the cheapest product available.

3401 *Mr. Obernolte. Right, yes. Well, I mean, I would 3402 think that, if there was a competitive advantage to be had 3403 there, there is an incentive for a manufacturer to go seize 3404 it.

But we will continue to explore it because, as I said, the _ this idea that greater transparency would solve part of this problem, I think, is a very attractive one. But whatever we do, we absolutely must fix this problem because it is affecting the health care of the constituents of

everyone on this dais, and we have heard that message loud and clear from the health care providers in our district. So I want to thank you very much for being here, and for your service in trying to accomplish that really important goal. Mr. Chairman, I yield back.

*Mr. Guthrie. Thank you. The gentleman yields back. 3415 Seeing all members of the subcommittee being present and 3416 having asked questions, the chair now recognizes we are 3417 going to waive on, and we have our good friend from Florida. 3418 Ms. Castor, you are recognized for five minutes. 3419 3420 *Ms. Castor. Well, thank you, Mr. Chairman, for 3421 allowing me to waive on, because this is such an important 3422 matter.

And I want to thank you all. You are almost done. You are almost done.

But Mr. Ganio, at the very outset you really got my attention: 309 drugs in shortage that you are identifying now. You said most in a decade, and that folks are really struggling. You called it a crisis untenable.

3429 Mr. Ebert, you said it is a pressing problem. That 3430 tracks exactly with what I am hearing from neighbors at home.

3431 They are just scrambling to find workarounds and get people 3432 the access to the medications that they need.

I did a roundtable at Saint Joseph's Children's Hospital 3433 3434 in Tampa with patients and doctors and pharmacists and providers, and here is some of what they said. Parents, they 3435 said, they have children who can't get their chemotherapy 3436 drugs or the IV medical nutrition that they need to survive. 3437 There was one ER doc who said he scrambles every day. He 3438 contacts pharmacists to see what drugs are in stock so that 3439 he knows that day what prescriptions for patients will be 3440 3441 available. A cancer researcher who almost had to halt a clinical trial for a CAR T, and a pediatrician who has hired 3442 an employee just to handle pharmacy callbacks. 3443

3444 So everyone is struggling to keep up with the cascading 3445 impacts of the shortage. It is a colossal waste of money and 3446 a colossal waste of time. We have got to fix this. I am not 3447 certain that the bills that are being proposed here by the 3448 GOP majority get that job done.

One of the folks who is really focused on brainstorming solutions is Laura Bray with Angels for Change. She has appeared before the committee. She is from the Tampa Bay

3452 area. That is a volunteer-supported non-profit that works to 3453 connect providers with the drugs they need. So I want to ask 3454 you about that model.

3455 They have a pilot called Project Protect, where they give a small grant to a 503B compounding pharmacy to 3456 manufacture a drug that they take they model what and 3457 predict what is going to go into shortage. And then, with 3458 very modest funding, they get purchasing commitments from 3459 hospitals, a pharmacy who can produce this essential drug 3460 before the shortage begins, typically for about 10,000 to 3461 \$50,000. 3462

3463 So Mr. Ganio, for a _ do you know about this Project 3464 Protect and predictive modeling, where you select some of the 3465 most vulnerable drugs for some of the sickest patients? 3466 Are there ways that we can better align the supply chain 3467 to allow more accurate predictive modeling and give us early 3468 warning, early warnings for drugs and shortages _ in

3469 shortage?

*Dr. Ganio. Thank you for the question. And yes, Laura is obviously very passionate, and she has done some good work that has been a little outside of the box, and I think that

3473 program is one that could be scaled.

We heard my colleague here from Civica talk about ANDAs at the Ready, which would be a similar model for commercial manufacturers. But the predictive modeling is the important part of that. It is identifying which drugs are most at risk using multiple data points.

And we talk about transparency and improving 3479 understanding where we rely on single sources or single nodes 3480 in the supply chain. Those only help inform those predictive 3481 models even further, and give us more decision more tools 3482 3483 for decision-making in identifying things like Project 3484 Protect. Or even as we talk about buffers or stockpiles of certain medications, we don't need to buffer every single 3485 medication in the supply chain. We just need to find the 3486 ones that are most vulnerable, most essential, and choose 3487 those. 3488

3489 So I think the increased predictive modeling actually 3490 opens the opportunity for public-private partnerships like 3491 the Angels for Change, and gives us an idea of where those 3492 vulnerabilities are to start shoring up.

3493 *Ms. Castor. And Dr. Barber, this seems to track with

3494 some of your recommendations, these type of public-private 3495 partnerships and more predictive modeling. What do you 3496 think?

3497 *Dr. Barber. Thank you very much for that question. Modeling only works when you the data is good, right? 3498 Trash data in, trash models out is the adage we learned in my 3499 Ph.D. So I echo the comments made that we need to improve 3500 prioritization, right? We need to know where the problem is. 3501 3502 So what are the most essential drugs? Not all drugs are equal. What are the most brutal supply chains? Single 3503 3504 source?

And yes, modeling will get us only so far. But we need investment, systemic investments like the ANDA program and not just charity, to address this.

*Ms. Castor. Well, thank you all very much. I hope that the majority will take this to heart, and work these kind of public-private partnerships into their proposals. Thank you.

3512 *Mr. Guthrie. Thank you. The gentlelady yields back, 3513 and that concludes everybody who has been present for 3514 guestions. And I think almost all of us said what I think is

3515	important for all of us to say, particularly being the first
3516	hearing after a $_$ after being home working, is this is what I
3517	am hearing back home. And so that is _ that should shape
3518	policy that we do here in Washington, D.C.
3519	So there is actually a $_$ so we have concluded questions.
3520	We are almost finished. But there are documents for the
3521	record. We have gotten the list to the $_$ both sides for the
3522	majority and minority. I submit the requests for the record.
3523	Without objection?
3524	*Ms. Eshoo. Without objection.
3525	*Mr. Guthrie. Without objection, so ordered.
3526	[The information follows:]
3527	
3528	********COMMITTEE INSERT********
3529	

*Mr. Guthrie. And I will remind members they have 10 3530 business days to submit questions, and I ask that the 3531 witnesses promptly reply. I know there were some who said 3532 3533 they will reply in writing, and then there could be other questions coming forward, and members should submit their 3534 questions by the close of business on September the 27th. 3535 So without objection, the subcommittee is adjourned. 3536 [Whereupon, at 12:57 p.m., the subcommittee was 3537 3538 adjourned.]