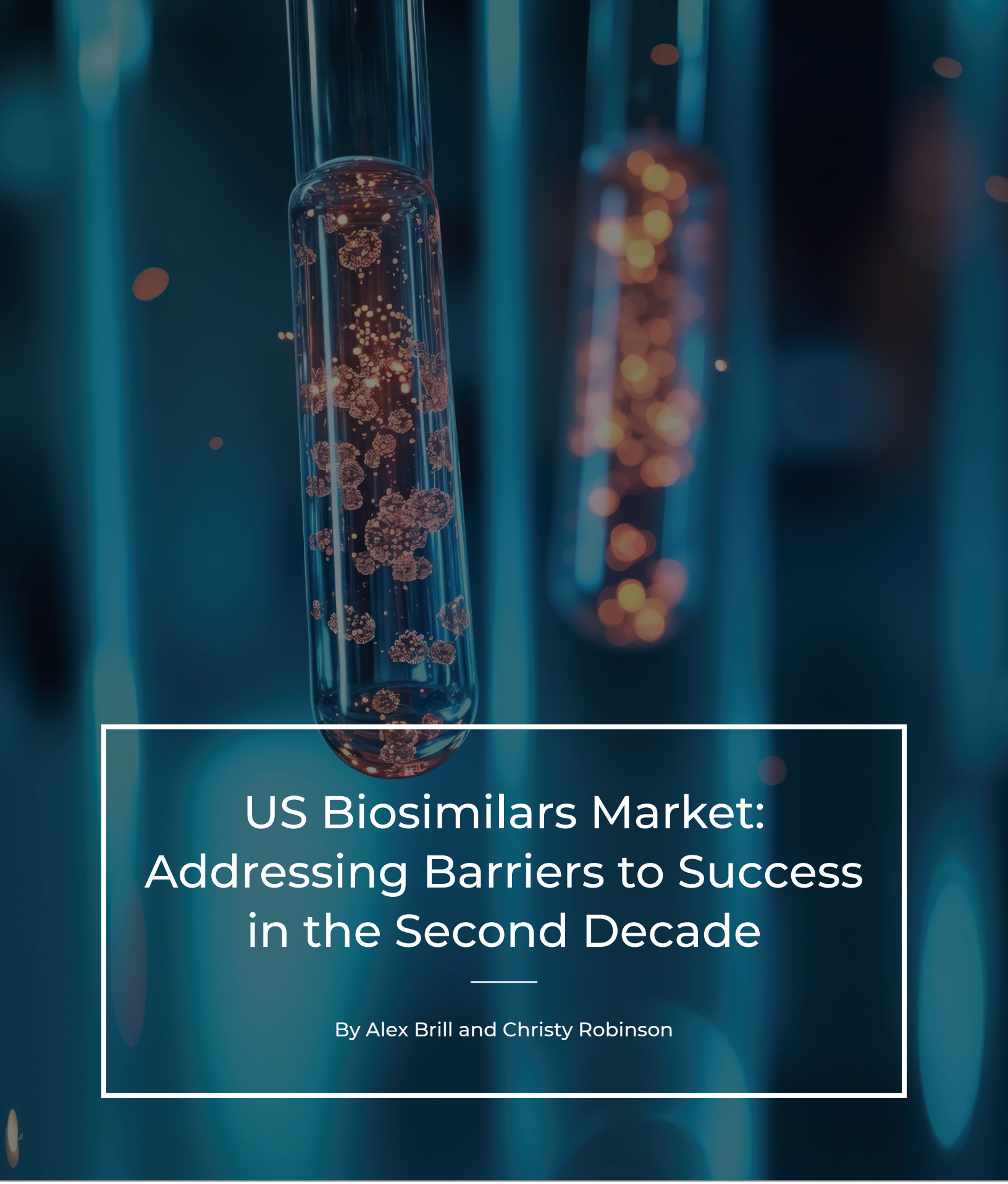

US Biosimilars Market: Addressing Barriers to Success in the Second Decade

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Executive Summary

Since the Biologics Price Competition and Innovation Act created the regulatory pathway for biosimilars in the United States fifteen years ago, regulators, manufacturers, prescribers, payers, and patients have gained significant experience with these products. A decade after the first biosimilar approval and launch in the United States, it is time for policymakers to address the remaining barriers to a further acceleration of a competitive marketplace for biologic drugs. This paper highlights key issues that constitute barriers to US biosimilars in their second decade.

Many biosimilar-related policy issues are evaluated in isolation, each only partially addressing the wide set of challenges. In an effort to overcome this compartmentalization, we group barriers currently impeding biosimilars into three categories: barriers to access and utilization, barriers to development, and barriers to market entry and sustainability (see ***Figure 1***).

Overcoming these barriers will require steps on multiple fronts. Providers, patients, pharmacists, and payers should seek out and promulgate biosimilar education. Pharmacy benefit managers should embrace a long-term view and give biosimilars preferential coverage on drug formularies. Regulators should focus on addressing regulatory hurdles and seeking solutions to ensure fair pricing and reimbursement for biosimilars. Lawmakers should pursue more effective policies to prevent anticompetitive tactics and mitigate the negative impact of the Inflation Reduction Act on biosimilar development.

With concerted effort, stakeholders can ensure that the second decade of US biosimilars is characterized by a more competitive marketplace along with the additional cost savings that will follow.

FIGURE 1. BARRIERS TO BIOSIMILAR SUCCESS

Access and Utilization

- Lack of education and confidence in biosimilars
- Stakeholders' unfamiliarity with pharmacy benefit biosimilars
- Drug formularies not aligned with fostering a competitive biosimilar marketplace

Development

- Interchangeability designation
- Outdated or unnecessary regulatory requirements
- Lack of global comparability

Market Entry and Sustainability

- Anticompetitive tactics by brand manufacturers
- Biosimilar price deflation
- Chilling effect of Medicare drug price negotiations

Introduction

A decade after the first biosimilar approval and launch in the United States, it is time for policymakers to seriously evaluate both the successes of the market to date and the remaining barriers to a further acceleration of a competitive marketplace for biologic drugs. At a time when drug pricing remains a topic of great interest to lawmakers and their constituents, it is an opportune moment to recognize the advances in science and market confidence as well as the continued regulatory burdens and market impediments that constrain biosimilar manufacturers.

Since the Biologics Price Competition and Innovation Act (BPCIA) created the regulatory pathway for biosimilars in the United States fifteen years ago, regulators, biosimilar manufacturers, prescribers, payers, and patients have gained significant experience with these products. While the market has grown and biosimilars continue to be approved, the environment for biosimilars is different in more ways than could be imagined pre-BPCIA. This paper highlights key issues that constitute barriers to further expansion of the biosimilar marketplace.

The First Decade of US Biosimilars

The Food and Drug Administration (FDA) approved the first biosimilar, Zarxio, in March 2015, and the most recent biosimilar in March 2025. During the ten years between these approvals, the US biosimilar market has developed and matured in many ways. The FDA has now approved a total of 67 biosimilars referencing 18 unique reference biologics in endocrinology, hematology, immunology, oncology, ophthalmology, and supportive care. Of the 67 approved biosimilars, 46 have launched.

Most biosimilars are medical benefit drugs, meaning they are generally provider-administered and reimbursed by insurance as part of the medical benefit (in Medicare, this is known as Part B). Recently, biosimilars have entered the pharmacy benefit (Part D in Medicare) with the launch of ten adalimumab (Humira) biosimilars as well as multiple insulin products. More products are expected in this channel, which has its own unique market dynamics.

Overall, savings attributable to US biosimilars have been estimated at $36 billion through 2023, with $12.4 billion occurring in 2023 alone (*AAM, 2024*). This is a considerable amount in absolute terms but is more modest relative to total US biologic sales, which were $220 billion in 2023 (*IQVIA, 2024*). Nevertheless, biosimilar savings in 2023 were similar in magnitude to the increase in total drug spending (*ibid.*), suggesting that biosimilars reduced the 2023 increase in total net drug spending by half.

Despite the meaningful progress with respect to approvals, launches, and savings, the biosimilars market continues to be limited. For example, when a biosimilar launches, uptake is generally slow. And, while scores of biosimilars have been approved, the 18 biologics they reference represent just a small share of the total number of marketed biologics. And approved biosimilars for six of the 18 reference products have yet to launch due to patent disputes or settlements. As US biosimilars enter their second decade, policymakers have the opportunity to remove remaining barriers and facilitate this market becoming robust and sustainable and delivering much greater savings to the healthcare system.

Barriers to Biosimilar Success

Many biosimilar-related policy issues are evaluated in isolation, each only partially addressing the wide set of challenges. In an effort to overcome this compartmentalization, we group barriers currently impeding biosimilars into three categories: barriers to access and utilization, barriers to development, and barriers to market entry and sustainability. Some longstanding barriers persist (*Brill and Robinson, 2018*), while others have evolved as the biosimilars market has developed.

BARRIERS TO ACCESS AND UTILIZATION

In some cases, biosimilars have captured significant market share. For example, after five years on the market, biosimilars for bevacizumab and trastuzumab exceeded 80 percent market share (*Samsung Bioepis, 2024*). However, in other instances, biosimilars have very low uptake. At the fifth-year mark, biosimilar market shares for infliximab and epoetin alfa were roughly 15 percent and 35 percent, respectively (*ibid.*).

In all cases, biosimilars capture market share slowly. While each drug experiences a different path, it is generally more than three years before a class of biosimilars (a group referencing the same brand biologic) approaches its peak market share. Conversely, small-molecule generic drugs generally capture market share more quickly. Rome et al. (*2021*) find that after just two years, average (mean) generic market share is 82.7 percent and even higher for large-market drugs and products with three or more generic manufacturers.

Causes underlying slow uptake of biosimilars include knowledge and confidence gaps among physicians, pharmacists, and patients as well as challenges facing biosimilars covered under health plans' pharmacy benefit.

Access and Utilization Barriers

- Lack of education and confidence in biosimilars
- Stakeholders' unfamiliarity with pharmacy benefit biosimilars
- Drug formularies not aligned with fostering a competitive biosimilar marketplace

Lack of Education and Confidence. Recent evidence related to knowledge about and confidence in biosimilars among stakeholders is concerning. For example, there are disparities among surveyed medical oncologists with respect to a basic understanding of biosimilars (*Kaiser et al., 2022*). Subsequent survey work with a larger sample confirmed that many oncologists lack adequate education about biosimilars (*Peipert et al., 2023*).

A recent survey of retinal specialists found that all respondents were at least slightly familiar with biosimilars, but 39 percent had never prescribed one (*Cardinal Health, 2024*). Among rheumatologists and gastroenterologists, 62 percent and 86 percent, respectively, reported being very comfortable prescribing a biosimilar, but 36 percent and 31 percent, respectively, cited efficacy concerns as their foremost concern in prescribing one (*Cardinal Health, 2023*).

Meanwhile, a survey of US pharmacists found that, while the vast majority knew that an FDA-approved biosimilar was as safe and efficacious as its reference product, nearly half of respondents were not consistently comfortable fielding patients' questions about biosimilars (*Stevenson et al., 2023*).

The FDA's Office of Therapeutic Biologics and Biosimilars, recognizing the need for patient and healthcare provider education, has created and made efforts to disseminate educational materials on biosimilars. Biosimilar manufacturers also make available information on biosimilars' safety and efficacy. But more work needs to be done to reach patients, providers, and caretakers, particularly in therapeutic areas where biosimilar products are new or recently introduced.

Unfamiliarity with Pharmacy Benefit Biosimilars. Before biosimilars of the blockbuster drug Humira (adalimumab) launched in early 2023, non-insulin biosimilars did not exist in the pharmacy benefit, which has markedly different dynamics than the medical benefit. As mentioned above, the medical benefit of insurance plans typically covers provider-administered drugs, while the pharmacy benefit generally covers self-administered drugs. Thus, biosimilar utilization usually hinges on a facility- or system-wide decision in the medical benefit but a provider decision (or formulary, as discussed below) in the pharmacy benefit.

According to Giavatto et al. (*2024*), as adalimumab biosimilars began launching in early 2023, pharmacists and doctors were generally not prepared to encourage biosimilar use. As additional pharmacy benefit biosimilars enter the market, it will be important for prescribers and pharmacists to be able to facilitate their use. However, the use of pharmacy benefit biosimilars also depends on health plans' coverage of these products on their drug formularies.

Formulary Decisions. While it is essential that providers, pharmacists, and patients have familiarity with and confidence in pharmacy benefit biosimilars, there are additional decision-makers affecting biosimilar utilization in this market — that is, pharmacy benefit managers (PBMs) hired by health insurance plans. As we wrote previously, "Unlike the medical benefit, the pharmacy benefit is characterized by negotiations between drug manufacturers and [PBMs] (acting on behalf of payers). In these negotiations, rebates can drive formulary placement — and thus utilization — of drugs" (*Brill and Robinson, 2023*).

A PBM may be able initially to negotiate a lower net price for a reference product — for example, Humira — whose manufacturer is trying to retain market share in the face of biosimilar competition. But structuring drug formularies so that biosimilars are not preferred risks the longer-term objective of a competitive biosimilar marketplace, which could yield lower prices. Therefore, PBMs should be prepared to give preference to biosimilars and resist short-term gains that may thwart competition and greater savings in the long run.

Similarly, PBMs should adopt a longer-term view when it comes to a market with multiple biosimilar competitors. PBMs' new practice of preferring their own private-label biosimilars increases biosimilar uptake but may stifle the number of competitors in the market.

BARRIERS TO DEVELOPMENT

When the US biosimilars pathway was created in 2010, manufacturers and regulators were inexperienced in developing and approving biosimilars. Fifteen years later — and a decade after the first biosimilar was approved — certain requirements that may have made sense in the early years of the biosimilar industry are now impediments to biosimilar development. It is vital that regulations evolve with scientific and market advances.

Interchangeability Designation. The BPCIA included an avenue for biosimilars to fulfill additional requirements to receive a designation of interchangeability with their reference products, which would allow biosimilars to be automatically substituted without prescriber involvement. This dichotomy, however, has given rise to the concern — potentially encouraged by brand manufacturers[1] — that biosimilars without an interchangeability designation are not comparable to their reference products.

The FDA has attempted to address this misinformation and reaffirm that non-interchangeable biosimilars are just as safe, effective, and high-quality as interchangeable ones. The agency has also proposed reducing the requirements for receiving the designation by potentially making clinical switching studies unnecessary for the approval of interchangeable products (*FDA, 2024a*). As the agency explained when releasing its draft guidance, "Today's analytical tools can accurately evaluate the structure and effects biologic products, both in the lab (in vitro) and in living organisms (in vivo) with more precision and sensitivity than switching studies" (*FDA, 2024b*).

The Federal Trade Commission (FTC) issued a comment supporting the FDA's proposed policy change, asserting, "If implemented, the guidance would likely reduce barriers to entry and facilitate competition among biologic products by increasing the number of biosimilars designated as interchangeable" (*FTC, 2024*). However, a legislative change for a single pathway under which all biosimilar products would be deemed interchangeable would be not only scientifically appropriate, but also an important market signal. Notably, the FDA declared in its fiscal year 2025 budget request that it "is seeking to amend section 351 of the Public Health Service (PHS) Act to no longer include a separate statutory standard for a determination of interchangeability and to deem all approved biosimilars to be interchangeable with their respective reference products" (*FDA, 2024c*).

Development Barriers

- Interchangeability designation
- Outdated or unnecessary regulatory requirements
- Lack of global comparability

Lack of Global Comparability. Biosimilars exist and flourish outside the United States — particularly in European countries. Allowing biosimilars approved by a regulatory body in another country to serve as comparators for US regulators would streamline biosimilar development and approval in the US market. As the International Generic and Biosimilar Medicines Association (IGBA) has argued:

> Irrespective of the regulatory jurisdiction where approval is given and based on scientific rationale and regulatory expectations (unless data is available to confirm otherwise), a biological product produced by the same developer and marketed around the globe should by default be considered of comparable quality and equivalent in terms of the safety and efficacy profile. (*IGBA, 2023*)

The FDA usually requires three-way clinical pharmacokinetic comparisons to bridge to non-US biosimilar comparators, but there is scientific support for these studies to not be required as a rule (*Biosimilars Council, 2024*).

[1] *In a 2019 interview, then–FDA Commissioner Scott Gottlieb said, "'I am worried that there are either deliberate or unintentional efforts by branded companies to create confusion' about the safety and effectiveness of unbranded biologic drugs" (*Rowland, 2019*).*

Obsolete Regulatory Requirements. Stakeholders are increasingly attuned to the need to eliminate outdated or unnecessary regulations. In particular, two requirements that impede biosimilar development could be removed without compromising safety, efficacy, or quality:

1. Comparative efficacy studies generally do not meaningfully contribute to the demonstration of biosimilarity. These studies impose substantial costs that can deter development (*IGBA, 2024*; *Biosimilars Council, 2024*). Indeed, at a recent workshop held by the International Pharmaceutical Regulators Programme Biosimilars Working Group (IPRP BWG), "There was general convergence among attendees around re-examining the need for [comparative efficacy studies]" (*IPRP BWG, 2024*).
2. Current FDA policy related to comparative use human factors studies and evaluation of device sameness requires comparison of a drug-device combination product to the reference product, making a competitor version appear inferior. If the device component were instead evaluated independently, study time and cost would be reduced, leading to more efficient approvals of these products.

BARRIERS TO MARKET ENTRY AND SUSTAINABILITY

Perhaps the most difficult barriers to address are those associated with biosimilar market entry and sustainability, as these relate to entrenched tactics by brand drug manufacturers, persistent issues with biosimilar reimbursement, and the enactment and early implementation of Medicare drug price negotiations.

Anticompetitive Tactics. For years, brand drug manufacturers have used strategies to impede generic drug entry and uptake, and these strategies are now being used to discourage biosimilar manufacturers from investing in costly and risky development projects. These tactics include patent thickets (amassing superfluous patents around a brand drug), product hopping (moving patients to a slightly different version of a brand drug to thwart competition), and rebate walls or rebate bundling (making rebates for multiple drugs contingent on preferring a brand drug over its competitor). Serial litigation (asserting new challenges in several court proceedings to delay the launch of biosimilars) also poses risks.

Market Entry and Sustainability Barriers

- Anticompetitive tactics by brand manufacturers
- Biosimilar price deflation
- Chilling effect of Medicare drug price negotiations

Of these anticompetitive tactics, patent thickets have received the most attention from lawmakers, but legislation targeting this strategy has yet to pass. Proposed bills to address patent abuse, albeit well intentioned, have not been equal in the effectiveness of their approaches. For example, the Affordable Prescriptions for Patients Act, which unanimously passed the Senate last year, would limit the number of patents that brand manufacturers can litigate. However, the bill leaves options for brand drug manufacturers to circumvent the intent of the legislation by, for example, carving out certain types of patents, including method of treatment patents.

Price Deflation. Medicare Part B reimbursement for biosimilars and reference biologics is based on a drug's average sales price (ASP), and ASP-based reimbursement has limitations that impede biosimilars. There is a two-quarter lag between when the price is measured and when reimbursement is set. This can advantage a reference product over a biosimilar if a biosimilar

enters the market with a lower price and the reference product price is declining. The effect of the lag is that the ASP for the reference product for the purpose of reimbursement is higher than the actual average sale price in the market. For a biosimilar with a steady price during a two-quarter period, this is not the case. Even though biosimilars are reimbursed at ASP + 8 percent of the reference product's ASP, the spread between the acquisition cost and Part B reimbursement may be greater for the reference product.

Medicare Drug Price Negotiations. The Inflation Reduction Act (IRA) of 2022 included a provision that allows CMS to negotiate the prices of certain drugs in Medicare. Meant to bring down the price of drugs that have long enjoyed a monopoly, this provision will likely have a chilling effect on biosimilar (and generic) drug development and competition. While the IRA attempts to preserve incentives for biosimilars to come to market, there is still a significant risk that a manufacturer will not develop a biosimilar for fear that the reference product will be selected for price negotiation. Developing a biosimilar is costly, and manufacturers must believe that they can recoup their development costs if they pursue a biosimilar.

In particular, timeframes established in BPCIA that limit the entry date of a biosimilar and timelines in IRA governing when a biologic drug may be subject to government negotiation conflict such that it will be challenging for a biosimilar to come to market in time to prevent a biologic drug from otherwise facing government price negotiations (*Cencora, 2023*). In other words, Medicare drug price negotiations will likely substitute for, not complement, biosimilar drug competition.

Recommendations

As the US biosimilars market has evolved, challenges and policy priorities have as well. Some stakeholder and policymaker perspectives have become outdated as new barriers have arisen. While there has certainly been progress worth acknowledging, this success does not preclude the need for a "next generation" of reforms, as this paper demonstrates.

Overcoming these barriers will require steps on multiple fronts. Providers, patients, pharmacists, and payers should seek out and promulgate biosimilar education. PBMs should embrace a long-term view and give biosimilars preferential coverage on drug formularies. Regulators should focus on removing unnecessary regulations and seeking solutions to ensure fair pricing and reimbursement for biosimilars. Lawmakers should pursue more effective policies to prevent anticompetitive tactics and mitigate the negative impact of the IRA on biosimilar development. With concerted effort, stakeholders can ensure that the second decade of US biosimilars is characterized by a robust competitive marketplace and the savings that will follow.

SOURCES

Association for Accessible Medicines (AAM). 2024. "The U.S. Generic & Biosimilar Medicines Savings Report." September.

Biosimilars Council. 2024. "Streamlining the Development of Biosimilar Medicines." May.

Brill, Alex, and Christy Robinson. 2018. "Steps to Reducing Barriers to Biosimilars in the United States," MGA White Paper. September. Available at www.getmga.com/wp-content/uploads/2022/04/BarriersToBiosimilars_September2018.pdf.

Brill, Alex, and Christy Robinson. 2023. "Near-Term Expectations for Adalimumab Biosimilars in the United States." MGA White Paper. February. Available at www.getmga.com/wp-content/uploads/2023/02/Adalimumab_Biosimilars.pdf.

Cardinal Health. 2023. "2023 Biosimilars Report: Tracking Market Expansion and Sustainability amidst a Shifting Industry."

Cardinal Health. 2024. "2024 Biosimilars Report: Insights on a Pivotal Year of Evolution and Expansion."

Cencora. 2023. "Biosimilars Are Driving Savings across the Healthcare System, but Will the Inflation Reduction Act Hinder Their Potential?" December.

Federal Trade Commission (FTC). 2024. "FTC Submits Comment Supporting Proposed FDA Guidance on Interchangeable Biosimilar Drugs." News Release. August 20.

Food and Drug Administration (FDA). 2024a. "Considerations in Demonstrating Interchangeability with a Reference Product: Update — Guidance for Industry." Draft Guidance. June.

FDA. 2024b. "FDA Updates Guidance on Interchangeability." June 20.

FDA. 2024c. "FY25 Legislative Proposals."

Giavatto, Carly, Jessica Mourani, Casey Fitzpatrick, Brandon Hardin, Amber Skrtic, Amy Evans, Eric Sredzinski, Susan Trieu, Adam I. Setter, Larry Kobiska, and Ana I. Lopez-Medina. 2024. "Biosimilar Perceptions among Autoimmune Prescribers and Pharmacists in Health System Specialty Pharmacy," *Journal of Managed Care & Specialty Pharmacy* 30, no. 2 (February): 112–210.

International Generic and Biosimilar Medicines Association (IGBA). 2023. "In Support of Global Comparator for Biosimilars: Waiving Bridging Studies Concerning *Local* versus *Global* Reference Products." IGBA Biosimilars Committee Position. August.

IGBA. 2024. "IGBA Position on Streamlined Development." IGBA Biosimilars Committee Position. April.

International Pharmaceutical Regulators Programme Biosimilars Working Group (IPRP BWG). 2024. "Workshop Summary Report: Increasing the Efficiency of Biosimilar Development Programs — Reevaluating the Need for Comparative Clinical Efficacy Studies." May 6.

IQVIA Institute for Human Data Science. 2024. "The Use of Medicines in the U.S. 2024: Usage and Spending Trends and Outlook to 2028." April.

Kaiser, Karen, Katherina Hauner, Sara Shaunfield, George J. Greene, Madison Lyleroehr, John Devin Peipert, Sheetal Kircher, David Cella, Mary Golf, and Daniel K. Mroczek. 2022. "Qualitative Study of Medical Oncologists' Knowledge and Views of Biosimilars in the United States," *Medical and Clinical Research: Open Access* 3, no. 1.

Peipert, John Devin, Karen Kaiser, Sheetal Kircher, George J. Greene, Sara Shaunfield, Katherina Hauner, David Cella, and Daniel K. Mroczek. 2023. "Medical Oncologists' Knowledge and Perspectives on the Use of Biosimilars in the United States," *JCO Oncology Practice* 19, no. 3 (March).

Rome, Benjamin N., ChangWon C. Lee, Joshua J. Gagne, and Aaron S. Kesselheim. 2021. "Factors Associated with Generic Drug Uptake in the United States, 2012 to 2017," *Value in Health* 24, no. 6 (June): 804–11.

Rowland, Christopher. 2019. "'Marketers Are Having a Field Day': Patients Stuck in Corporate Fight against Generic Drugs." *Washington Post*. January 9.

Samsung Bioepis. 2024. "Biosimilar Market Dynamics: 7th Edition, Q4 2024."

Stevenson, James G., Dorothy McCabe, Melissa McGrath, and Ali McBride. 2023. "Pharmacist Biosimilar Survey Reveals Knowledge Gaps," *Journal of the American Pharmacists Association* 63, no. 2 (March-April): 529–37.

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