BAHM Student Case Competition – 2027

Securing the First Mile: Creating Resilient Access to Critical Drug Ingredients

Prepared for the Business Alliance of Healthcare Management (BAHM),

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Case Overview

The U.S. pharmaceutical supply chain has a structural vulnerability at its most upstream point: the active pharmaceutical ingredients (APIs) and, further upstream, the key starting materials (KSMs) used to synthesize them. Following the August 2025 executive order directing the Department of Health and Human Services' Administration for Strategic Preparedness and Response (HHS-ASPR) to fill the Strategic Active Pharmaceutical Ingredients Reserve (SAPIR), HHS-ASPR has begun designating a list of essential medicines considered vital to national health and security. For most of these medicines, and for hundreds of others, China and India together account for the overwhelming majority of API and KSM production. Independent analyses built on the U.S. Pharmacopeia's Medicine Supply Map have found China to be the sole source of at least one KSM for well over a third of all U.S.-approved APIs, with India the sole source for roughly another fifth.

As health economist Steve Parente and colleagues have argued, this dependence is no longer just a manufacturing cost story. In a May 2026 op-ed, Parente describes China as pulling ahead in the earliest, most scientifically valuable stage of drug development even as it continues to dominate downstream ingredient manufacturing. That combination changes the strategic calculus for any policy aimed at reducing dependence on Chinese and Indian supply chains: a strategy focused only on relocating manufacturing, without also strengthening the upstream science and capital base, risks winning the factory while losing the innovation. Kevin Schulman and coauthors have separately examined how concentrated, fragile healthcare supply chains translate into clinical and financial risk across the health system, and have called for a more deliberately engineered, resilient architecture spanning ingredients, manufacturing, and distribution.

In this case competition, student teams are asked to design a policy portfolio that establishes reliable access to API and KSM production for HHS-ASPR designated medicines within an accelerated 18-month horizon, using friend-shoring (allied-nation manufacturing) and onshoring (domestic U.S. manufacturing) as the two primary levers. The compressed timeline is deliberate: it forces teams to confront the real gap between

what can be legislated or contracted in 18 months (e.g., redirecting volume to existing allied-nation facilities, activating stockpiles, expediting FDA site qualifications) and what genuinely cannot (e.g., permitting and building new greenfield chemical synthesis capacity from scratch). The recommended strategy should be realistic about that gap, clear about which medicines designated by HHS and ASPR can plausibly have their supply risks reduced within the window, and explicit about which longer term efforts must be initiated during that period by securing funding, selecting sites, and executing contracts.

The Challenge

Teams must design a comprehensive policy strategy, not a single intervention, that shifts API and KSM sourcing for HHS-ASPR designated medicines away from a sole foreign source (e.g., China or India) within 18 months of policy launch. The strategy should combine trade, industrial, regulatory, and health-financing tools; address the economics of manufacturing low-margin generic ingredients outside of low-cost geographies; and account for the geopolitical risk of retaliation during the transition period. Because most new chemical manufacturing capacity cannot be built and validated in 18 months, competitive strategies will likely lean heavily on friend-shoring to existing qualified facilities, contract manufacturing and tolling agreements, and strategic reserve activation, while treating true onshoring as a longer-term track that this 18-month plan must credibly initiate.

Objectives

Student teams should aim to:

- Eliminate single-source and dual-country (China/India) dependence for API and KSM production of HHS-ASPR designated medicines
- Build a credible, sequenced 18-month roadmap combining onshoring and friend-shoring, with clear 0–6 month, 6–12 month, and 12–18 month milestones
- Preserve U.S. leadership in drug innovation while re-shoring the “first mile” of ingredient production, not just final packaging
- Design a financing and governance model that can attract sustained private capital despite historically thin margins on generic APIs and KSMs
- Minimize disruption to patient access and drug affordability during the transition

Key Assumptions

- HHS-ASPR maintains and periodically expands a designated list of essential/vulnerable medicines under the SAPIR framework (approximately two dozen medicines at the program's outset)
- China and India together are the sole or dominant source of API and/or KSM production for a large share of HHS-ASPR designated medicines
- Friend-shoring partners are limited to nations with FDA-recognized or otherwise compatible regulatory standards (e.g., Abraham Accords signatories, the European Union, Japan, South Korea, and other allied manufacturing hubs)
- Rebuilding complex chemical synthesis capacity, particularly for KSMs, requires multi-year capital investment, environmental permitting, and a skilled chemistry workforce; within an 18-month window, teams should assume new greenfield capacity can be funded, sited, and contracted, but not fully operational
- Existing, underutilized capacity in allied nations (and, in some cases, in the U.S.) can plausibly be qualified, contracted, or re-directed within 18 months, making friend-shoring and contract manufacturing the primary near-term levers
- Generic drugs make up the large majority of U.S. prescriptions, so reshoring economics must be evaluated against thin generic margins and reimbursement pressure
- China or India may respond to reshoring efforts with export restrictions, tariffs, or other retaliatory measures within the 18-month window itself, not just over the longer term

Logistics

- Case Issued: October 31, 2026
- Written Materials Due: Week of January 18, 2027 (third week of January)
- In-Person Case Competition: February 18–19, 2027, Johns Hopkins University, Washington, DC Campus

Team Task

Each team must develop a comprehensive policy plan that includes:

1. Problem Definition and Supply Chain Mapping (current API/KSM dependence on China and India for HHS-ASPR designated medicines)

2. Policy Option Portfolio (e.g., strategic stockpiling, tax and investment incentives, advance market/purchase commitments, procurement reform, trade agreements, regulatory harmonization, export-control coordination with allies)
3. Sourcing and Manufacturing Strategy (which medicines/ingredients to onshore vs. friend-shore, and to which countries or regions)
4. Financing and Capital Formation Model (public and private capital to fund new API/KSM capacity given thin generic margins)
5. Regulatory, Trade, and Diplomatic Considerations (FDA mutual recognition, tariffs, export controls, Abraham Accords-style frameworks)
6. Implementation Roadmap sequenced across 0–6 month, 6–12 month, and 12–18 month phases, distinguishing capacity that will be operational within the window from longer-term capacity that is merely funded, sited, or contracted within it
7. Economic and Access Impact Analysis (effects on drug pricing, generic economics, and patient access during the 18-month transition)
8. Governance and Political Durability (statutory authority, appropriations, contracting vehicles, or other mechanisms that let the plan survive normal agency and budget cycles within an 18-month window)
9. Risks, Limitations, and Mitigation Strategies (including retaliation risk, cost overruns, workforce shortages, and continued Chinese advances in early-stage innovation)

Deliverables

- Written policy plan (maximum 10 pages, excluding exhibits)
- Executive summary (1 page)
- Pitch deck (10–12 slides)
- Optional appendix with supply chain maps, financial models, or implementation timelines

Evaluation Criteria

Teams will be evaluated on:

- Strategic clarity and originality of the policy portfolio
- Feasibility and credibility of the onshoring / friend-shoring roadmap

- Effective use of supply chain, health economics, and trade policy data
- Financial and economic logic, including the economics of generic API/KSM manufacturing
- National security and public health relevance
- Political and diplomatic feasibility
- Quality of analysis and presentation

Success Definition

A successful solution demonstrates a credible, sequenced 18-month path away from today's China- and India-concentrated API/KSM supply chain for HHS-ASPR designated medicines — one that measurably reduces single-country dependence within the window itself, protects patient access and affordability during the transition, and clearly launches (funds, sites, and contracts) the longer-term onshoring work that cannot finish within 18 months. The solution should also address how the United States retains a competitive position in early-stage drug innovation, not only in downstream manufacturing.

Optional Extension Questions

- What is the right balance between onshoring and friend-shoring for KSMs specifically within an 18-month window, given that they require even more concentrated and specialized chemical manufacturing than APIs?
- How would your policy portfolio need to change if China or India imposed export restrictions during the 18-month window itself, before new capacity or contracts come online?
- How does the “first mile” of drug innovation — not just manufacturing — factor into a short-horizon supply chain security strategy?
- Which HHS-ASPR designated medicines are realistic candidates for measurable diversification within 18 months, and which will need a longer runway regardless of policy design?

Background and Reference Materials

Teams should ground their analysis in current supply chain and health policy research, including:

Parente, S. “China is winning the first mile of drug innovation.” Washington Examiner, May 11, 2026.

Schulman, K.A., Kumar, W., Ahuja, N., et al. “Towards resiliency in the US healthcare supply chain.” Journal of Hospital Medicine, 2025.

The White House. Executive Order, “Ensuring American Pharmaceutical Supply Chain Resilience by Filling the Strategic Active Pharmaceutical Ingredients Reserve,” August 13, 2025.

U.S. Pharmacopeia (USP). Medicine Supply Map and related Quality Matters blog series on key starting material (KSM) concentration, 2025–2026.

Council on Foreign Relations. “The Pharma Choke Point.” 2026.

Barbosu, S. and Ezell, S. “How America Can Reduce Its Dependence on Chinese Active Pharmaceutical Ingredients (APIs).” Information Technology and Innovation Foundation (ITIF), 2026.

American Medical Association, American Society of Health-System Pharmacists, American Society of Clinical Oncology, and U.S. Pharmacopeia. “Improving the Quality and Resilience of the United States Healthcare Supply Chain” (joint statement).

Note to faculty/organizers: additional teaching materials — e.g., the HHS-ASPR designated medicines list, USP Medicine Supply Map excerpts, or a one-page primer distinguishing APIs from KSMs — can be distributed as case exhibits alongside this prompt.