Health for All Now!
People´s Health Movement

PUBLIC PHARMA IN SWEDEN:

THE CASE OF APL.

Public Pharma in the PHM Framework

Health for All Now!
People´s Health Movement

CONTENIDO

Health for All Now!
People´s Health Movement

01

INTRODUCTION

Public Pharma, as articulated by the People's Health Movement (PHM), refers to the research, development, manufacturing, and distribution of health technologies carried out under public ownership, with the explicit aim of serving collective health needs rather than private profit. It is understood not merely as a corrective to so-called market failures, but as a systemic infrastructure that redefines medicines and health technologies as public goods. In this sense, Public Pharma is framed as part of a broader struggle against capitalism, imperialism, and neoliberal health policies. It is aligned with the principles of the Alma-Ata Declaration—equity, universal access, community participation, and self-reliance (People's Health Movement, 2024).

This vision positions Public Pharma as a transformative force: dismantling the dominance of transnational corporations (Big Pharma), rejecting Public-Private Partnerships that socialize risks while privatizing profits, and advancing a commons-based and solidarity-driven approach to health. PHM emphasizes that Public Pharma must go beyond addressing gaps left by the private sector. It should actively secure health sovereignty, foster international solidarity, integrate diverse knowledge systems (including traditional medicine), and promote ecological sustainability (De Ceukelaire & Joye, 2024; Florio et al., 2021).

Ultimately, Public Pharma is conceived as a cornerstone of a just, eco-socialist, decolonial, feminist, and anti-patriarchal order in which Health for All is realized as a human right (People's Health Movement, 2024).

Before examining Apotek Produktion & Laboratorier (APL), it is important to ground the broader vision of Public Pharma in a concrete example that illustrates its possibilities and limitations in practice. While the PHM framework sets out an ambitious and transformative agenda, states have already experimented—albeit in partial and constrained ways—with publicly owned pharmaceutical infrastructures. Sweden's APL stands out as one such case: a state-owned company that demonstrates how public intervention can directly address health needs neglected by the market. By ensuring access to medicines for patients with special requirements and supporting hospitals with essential sterile products, APL can be seen as a clear example of Public Pharma, even if not yet fully aligned with PHM's transformative goals. Looking at APL thus provides a useful entry point to reflect on how governments can move toward building pharmaceutical systems that prioritize collective health needs over profit, and what challenges remain in expanding such initiatives into broader models of health sovereignty and solidarity.

This report is based on desk research and policy analysis. It reviews official documents from APL and the Swedish government, European Commission publications, academic studies, and selected media sources. We have tried to contact APL for more information but were declined in our request. By comparing these materials, the report identifies APL's main functions, strengths, and limitations, while also placing it in the wider context of European pharmaceutical policy debates. The focus is on synthesizing existing knowledge rather than generating new empirical data, with the aim of providing a clear and accessible description of APL's role in Sweden's health system and its relevance for the global discussion on Public Pharma.

02

APOTEK PRODUKTION & LABORATORIER (APL)

The Role of Public Pharma in Sweden

A brief historical overview

The roots of Apotek Produktion & Laboratorier (APL) trace back to the early 20th century, when Apotekens Kontrolllaboratorium (AKL) was established in 1923 by Adolf Rising (APL.se). In the early 1970s, Sweden nationalized its pharmacy sector and formed Apoteksbolaget AB (later Apoteket AB), under whose umbrella APL was created to centralize extemporaneous medicine production. A key milestone occurred in 1986 with the launch of manufacturing facilities in Stockholm, Gothenburg, and Malmö, followed by modernization in Umeå in 1999. After the deregulation of Sweden's pharmacy market in 2009, Apoteket AB became one of several retail pharmacy chains, while APL was spun off in July 2010 as an independent state-owned company. Unlike Apoteket AB, which focuses on retail distribution, APL retained a specialized mandate: pharmaceutical production with a strong emphasis on patient-specific medicines and hospital supply.

APL's core mission

has since centered on producing extemporaneous medicines—custom-prepared formulations manufactured "ex tempore," or according to the needs of the moment. These preparations are intended for patients with special requirements who cannot use medicines available on the market or through licensed products. In this sense, extemporaneous drugs serve as a critical safety net, ensuring that no patient is left untreated because of commercial disinterest or lack of profitable demand. Alongside this mandate, APL produces sterile products required by Swedish hospitals and clinics, and with around 500 employees across multiple facilities, also provides contract development and manufacturing services to both public health authorities and private life-science firms (APL.se; BusinessFocusMagazine, 2025).

Why Sweden? The foundations of trust and welfare

Sweden's longstanding commitment to a publicly funded welfare state—rooted in the concept of Folkhemmet, or "people's home"—has fostered high expectations of collective care and social solidarity. This robust social contract is reflected in remarkably high levels of interpersonal trust: over 60 percent of the population believe that "most people can be trusted" (Roser, 2018, para. 1). At the institutional level, trust in the national government remains comparatively modest, with 43 percent of Swedes reporting "high or moderately high" trust—nonetheless above the OECD average of 39 percent (OECD, 2024, Fig. 1).

Likewise, Sweden consistently ranks among the least corrupt and most transparent countries, with a 2024 Corruption Perceptions Index score of 80—placing it 8th out of 180

nations—and further underscoring a deeply ingrained culture of governance integrity, openness, and accountability (Transparency International, 2024, para. 2).

These high levels of public and institutional trust create a stable environment in which state-led initiatives—like APL's mission in public pharmaceutical production—are not only viable but also deemed credible and accepted by society. Sweden's welfare architecture thus provides fertile ground for a publicly controlled pharmaceutical infrastructure capable of prioritizing health equity, autonomy, and social welfare over market-driven imperatives.

03

APL'S CURRENT ROLE

APL fills vital gaps in Sweden's pharmaceutical landscape, responding to needs that private industry typically neglects.

Extemporaneous drugs

APL specializes in producing bespoke medicines for children, the elderly, and patients with rare diseases who require non-standard dosages or delivery formats unavailable on the commercial market. These extemporaneous preparations ensure inclusivity in treatment, guaranteeing that vulnerable patient groups are not excluded from effective care (Apotek Produktion & Laboratorier, 2025; CurifyLabs, 2024). The reason such formats are not commercially available lies primarily in their limited profitability: producing low-volume, individualized medicines—such as very small pediatric doses or preservative-free injectables—rarely generates enough demand to justify the high costs of development, regulatory approval, and distribution (Mohiuddin, 2018).

Pharmaceutical companies also allege that they face regulatory and clinical hurdles, since tailoring formulations for sensitive populations demands additional safety, efficacy, and stability studies that are costly and time-intensive for markets that remain small by design (Formulation Challenges and Strategies to Develop Pediatric..., 2021). Further, age-appropriate formulations often require the removal or substitution of common excipients, which complicates large-scale production and narrows the potential consumer base (Prevalence, Risk, and Challenges of Extemporaneous Preparation…, 2023).

A lack of standardized regulatory frameworks for compounded medicines reportedly discourages industry investment, while the technical expertise required for precise dosing, aseptic handling, and individualized preparation makes such production ill-suited to commercial mass manufacturing (Extemporaneously compounded medicines – Australian Prescriber, 2017). As a result, extemporaneous compounding remains a critical public function: a domain where APL, through its specialized infrastructure and mandate, ensures safe, tailored, and equitable access to medicines that would otherwise be inaccessible under market-driven pharmaceutical systems. One example being hypertonic sodium chloride inhalation solutions (3%) for hospital use, ensuring continued access to essential but commercially unattractive treatments (Region Östergötland, 2023).

Sterile manufacturing

Another crucial area of APL's activity is sterile production. Sterile manufacturing is a critical component of pharmaceutical production, encompassing the creation of injectable drugs and ophthalmic solutions essential for hospital and clinic settings. This segment faces inherent challenges due to the necessity for aseptic processing, which requires specialized facilities, equipment, and highly trained personnel to prevent contamination and ensure patient safety (Contract Pharma, n.d.).

Additionally, the production of sterile injectables often involves complex supply chains and stringent regulatory requirements, which can lead to vulnerabilities and potential shortages (GAO, 2025). The global pharmaceutical industry has experienced significant disruptions in sterile manufacturing, particularly during the COVID-19 pandemic. These disruptions highlighted the fragility of global supply chains, especially concerning the reliance on offshore production and the concentration of manufacturing in limited facilities (Johns Hopkins University, 2020). Such dependencies have made the supply of critical sterile products susceptible to geopolitical tensions, natural disasters, and other unforeseen events (Johns Hopkins University, 2020).

In response to these challenges, there has been a growing emphasis on enhancing domestic production capabilities and diversifying supply sources. Investments in contract development and manufacturing organizations (CDMOs) are increasing, aiming to bolster the resilience of sterile injectable supply chains and reduce overreliance on a few global suppliers (WSJ, 2025). Despite these efforts, the market for sterile manufacturing continues to face limitations, including capacity constraints, regulatory complexities, and the need for substantial investment in infrastructure and technology (Contract Pharma, n.d.; WSJ, 2025).

APL plays a pivotal role in addressing these limitations by providing a reliable source of sterile products tailored to the specific needs of hospitals and clinics. An example for this is APL being involved in a late preclinical / early clinical pipeline as the aseptic fill & finish partner for SOL-116, a biological drug candidate from Lipum AB (Lipum AB, 2023). APL's state-owned status allows for a focus on public health priorities over profit motives, ensuring the continuous supply of essential sterile medications. This model exemplifies how public ownership can contribute to the stability and resilience of critical pharmaceutical manufacturing sectors.

Public-sector CDMO

APL serves as a pivotal Contract Development and Manufacturing Organization (CDMO) within Sweden's public health infrastructure. With over 40 years of experience, APL offers a comprehensive range of services, including pharmaceutical development, commercial manufacturing, and analytical services, across four fully equipped sites in Sweden (Apotek Produktion & Laboratorier, n.d.-a; PharmaSource, 2025).

This extensive expertise is particularly crucial for the development and production of orphan drugs and niche therapeutics—areas often neglected by private industry due to limited market incentives. APL's involvement ensures these specialized treatments are accessible to patients who might otherwise be excluded from effective care (Apotek Produktion & Laboratorier, n.d.-a).

APL's manufacturing capabilities are exemplified by specific products produced within Sweden's healthcare framework. For instance, the Klobetasol APL oral gel 0.025%—manufactured by APL for clinical use in oral lichen planus—demonstrates the organization's ability to deliver finished pharmaceutical formulations beyond pilot scale (ClinicalTrials.gov, 2020).

The strategic importance of state ownership in APL's CDMO operations cannot be overstated. As a state-owned entity, APL operates with a mandate to prioritize public health needs over profit maximization. This public ownership model facilitates long-term investments in infrastructure and innovation, which are essential for addressing public health challenges and ensuring equitable access to medicines. Moreover, APL's role as a CDMO enhances Sweden's pharmaceutical sovereignty, reducing dependency on global supply chains and bolstering national preparedness for health emergencies.

In summary, APL's dual function as a public health service provider and a CDMO exemplifies the benefits of integrating public ownership with specialized pharmaceutical manufacturing capabilities. This model not only addresses market gaps in the production of orphan and niche drugs but also contributes to a more resilient and equitable healthcare system in Sweden.

Emergency preparedness

In June 2025, the Swedish government allocated SEK 700 million for APL to acquire a penicillin production facility in Strängnäs. This strategic investment aims to restore Sweden's capacity to produce antibiotics domestically, ensuring both self-sufficiency and readiness for health crises such as pandemics or disruptions in global supply chains(Sweden Herald, 2025).

The global antibiotic market is predominantly controlled by a few major producers, with China accounting for 39.2% of antibiotics exported by value in 2023, followed by the United States (10.4%), India (9.7%), Italy (8.4%), and Switzerland (7.2%) (World's Top Exports, 2025). This concentration poses significant risks for European countries, as geopolitical instability, trade restrictions, or supply chain disruptions in these regions can lead to critical shortages of this class of medicines.

Compounding these supply chain vulnerabilities is the decline in Big Pharma's investment in new antibiotic development. The high costs associated with antibiotic R&D—and the relatively low financial returns—have led many large pharmaceutical firms to abandon thisfield.

Consequently, the pipeline for novel antibiotics has dwindled; the last entirely original class of antibiotics was discovered in the late 1980s (CARB-X, 2025).

This stagnation in innovation, combined with the growing threat of antimicrobial resistance, underscores the critical need for public investment in antibiotic production and research (Evans, Meyer, & Conti, 2024). Sweden's initiative to bolster domestic antibiotic manufacturing through APL is a proactive step toward mitigating these risks and ensuring a resilient healthcare system capable of responding to future health emergencies. By prioritizing public health over market incentives, Sweden advances the Public Pharma vision of treating essential medicines as public goods rather than profit-driven commodities.

Innovation and Open Research

APL has begun integrating advanced technologies, including 3D printing of patient-specific medicines in collaboration with CurifyLabs. This is an innovative approach to personalized medicine through its partnership with Finnish health-tech company CurifyLabs, focusing on the 3D printing of extemporaneous medicines, one of APL's core functions.

This technology enables the production of individualized dosage forms—particularly beneficial for pediatric and critically ill patients—offering greater dosing precision, flexibility, and sustainability. It also enhances workplace safety by reducing exposure to hazardous substances and repetitive tasks. APL aims to bring validated and regulatory-compliant 3D-printed medicines to the Swedish market by 2025 (Apotek Produktion & Laboratorier, 2024).

On Open source research, APL does not publicly articulate a formal stance on open-source research or open licensing beyond the requirements imposed by Swedish law. When asked, the company declined to give more information on this topic for this report. However, unlike private pharmaceutical companies, APL—being a state-owned enterprise—is subject to Sweden's Principle of Public Access to Information (offentlighetsprincipen), which increases transparency and access to certain official documents (Swedish National Data Service [SND], n.d.).

Moreover, under the Act on the Availability of Public Sector Data (Lag 2022:818), public bodies in Sweden must make certain research data accessible for reuse, aligning with the national Open Science policy framework (Swedish Research Council, n.d.-a). Sweden's research funders, including the Swedish Research Council, also require that publicly funded research outputs be made openly accessible without delay (Swedish Research Council, n.d.-b).

However, while these legal frameworks promote transparency, APL does not explicitly commit to sharing intellectual property, data, or innovations more openly than required. There is no indication that APL applies open licensing or voluntarily publishes proprietary R&D information beyond standard regulatory disclosures. Therefore, APL's openness primarily reflects its legal obligations as a public enterprise rather than a deliberate institutional policy

to exceed private-sector transparency norms.

Balasegaram et al. (2017) argue, open-source models in pharmaceuticals enhance transparency, reduce duplication, and accelerate the translation of research into therapies, in stark contrast to proprietary R&D models that prioritize commercial returns Transparency in research is crucial, as it allows for the sharing of data and methodologies, enabling independent verification and fostering trust within the scientific community. This openness is part of the Public Pharma initiative and can lead to more robust and reproducible results, reducing the likelihood of errors and biases that may arise in closed, proprietary settings.

On the topic of intellectual Property, APL has not published an internal view or policy on patents that it might hold; also here the company declined to give more information on this topic for this report. When looking at state policy, under Sweden's State Ownership Policy 2025, all state-owned enterprises (SOEs) must maintain strong innovation capacity, technical development, digital transformation, and renewal to remain relevant and sustainable (Regeringskansliet, 2025a). It also mandates transparent reporting of strategic goals for sustainable value creation, but does not explicitly define how inventions or patents generated by state companies should be governed (Regeringskansliet, 2025b).

In parallel, the recent Patent Law Reform, effective January 1, 2025, harmonized Sweden's intellectual property framework with EU and European Patent Convention standards, thereby providing a unified legal basis for both public and private sector innovation (Roschier, 2024). No publicly accessible Swedish policy currently specifies how intellectual property generated by state-owned pharmaceutical or CDMO enterprises should be owned, licensed, or shared.

Likewise, neither the state ownership framework nor APL's founding documents detail the allocation of patent rights arising from APL's R&D activities or how resulting revenues and access considerations are managed. There is also no evidence of a dedicated IP strategy at APL that addresses public-good licensing, innovation incentives, or mechanisms to align IP management with its public health mission. In short, as APL does not specify its IP policy, it remains under the same laws as all private and state-owned companies.

This closed patent system in pharmaceuticals centralizes control among a few corporations, restricts knowledge sharing, and discourages innovation directed at public health needs. Research shows that IP often results in high drug prices and reduced access to medicines, particularly in low- and middle-income countries (Balasegaram et al., 2017; Krikorian & Torreele, 2021). Scholars argue that open, publicly driven R&D models—emphasizing transparency, data sharing, and collective ownership—can promote equitable access and align innovation with societal needs (Radder & Smiers, 2024; De Falco, 2023).

Sustainability goals

State ownership is theoretically uniquely positioned to adopt a holistic and long-term approach to sustainability because public enterprises can align production practices with

broader ecological and social objectives of the state and the society, rather than being constrained by short-term profitability. But when checking the sustainability goals and measures of APL, there is not enough information to give a clear answer on how much they actually do, and this is already a problem of transparency. When asked, the company declined to give more information on this topic for this report.

In more detail: Based on APL's published sustainability materials (APL, n.d.), while the company aligns its work with the UN Sustainable Development Goals and therefore officially integrates sustainability into its business strategy, a critical assessment reveals significant shortcomings. The most pressing critique is the pervasive lack of specific, quantitative, and time-bound targets across its environmental focus areas, making it impossible to track progress or hold the company accountable.

This vagueness is particularly concerning given the high environmental impact of pharmaceutical manufacturing, as APL fails to provide detailed metrics on its water use, waste management, and chemical discharge, it also fails offer a clear breakdown of its full carbon footprint, especially concerning Scope 3 emissions from its supply chain. The only positive detail can be found in a media article, but not from APL itself; they are switching to "Woodsafe" risk waste containers as part of their environmental work (it-kanalen, n.d.).

Furthermore, the policy lacks depth in several key areas: there is insufficient evidence of robust third-party supplier audits, a comprehensive climate risk assessment, or meaningful stakeholder engagement with communities and NGOs. The reporting, though following Global Reporting Initiative (GRI) standards, would be significantly improved with raw data accessibility and greater transparency regarding environmental incidents and the ethical management of trade-offs between cost and sustainability. Especially the last point is something that would help the owners of the company, the state, and hence the people, make an informed decision on how APL should interact with the environment.

Transparency and patient safety

APL is under public oversight concerning its transparency and patient safety. The Government of Sweden's report on state-owned enterprises (2022) highlights that public companies can deliver higher levels of transparency in quality assurance and business ethics compared to private counterparts (Government of Sweden, 2022). Public reporting, strict adherence to national standards, and democratic accountability tend to mitigate the risks of opaque private practices, because they enable public scrutiny, enforce regulatory compliance, and align institutional incentives with the public interest (Kosack & Fung, 2014; Reich, 2018).

Sweden's Broader Public Health and EU Context

APL must be situated within broader European debates about pharmaceutical sovereignty. The European Union's Pharmaceutical Strategy (European Commission, 2020) and the EU Health Union report (European Commission, 2025) highlight the importance of building public infrastructure to secure supply chains, reduce dependency on global monopolies, and foster resilience. Scholars such as Florio, Pancotti, and Prochazka (2021) argue that

EU-wide public pharmaceutical infrastructures could effectively address market failures while improving equitable access (Florio et al., 2021). In this respect, APL exemplifies the kind of model that could be scaled up regionally.

According to the study by Florio, Pancotti, and Prochazka commissioned by the European Parliamentary Research Service (Florio et al., 2021), six interlinked market failures undermine pharmaceutical research and development (R&D) and availability across Europe: underinvestment in areas with low or no commercial returns, concentration and monopolization, geographic inequities, lack of resilience in supply chains, weak innovation coordination, and high entry barriers for new public-oriented actors.

By being in state ownership, APL has the potential of being a domestic counter-model to each of these challenges. By producing extemporaneous medicines and sterile hospital products, APL directly addresses therapeutic needs that private companies neglect because of their limited profitability, such as pediatric formulations or orphan drugs. Its existence as a state-owned company helps counter the concentration of production in the hands of multinational corporations, thereby diversifying Sweden's pharmaceutical landscape.

Furthermore, by maintaining multiple production facilities across the country, APL reduces geographic inequities in access and could serve as a template for wider regional efforts to secure equitable pharmaceutical availability. In terms of supply chain resilience, Sweden's acquisition of domestic penicillin production capacity in 2025 stands as an explicit attempt to secure critical antibiotics production against international supply disruptions, a measure that closely aligns with the EPRS Report mentioning "long-term resilience of production capacity in a country" (Florio et al., 2021).

APL also plays a role in improving the coordination of innovation through partnerships with universities, the national health system, and research start-ups such as CurifyLabs, thereby demonstrating the integration of public health needs and pharmaceutical development that is often lacking in Europe's fragmented innovation ecosystem. Finally, APL demonstrates that a publicly owned contract development and manufacturing organization (CDMO) can operate successfully despite the high barriers that usually prevent new, publicly oriented actors from entering the pharmaceutical sector (Apotek Produktion & Laboratorier).

Nonetheless, while APL addresses many of the problems identified in the report, it does not cover all the forms of infrastructure that the study calls for. National-scale initiatives such as APL cannot by themselves deliver a transnational and integrated European infrastructure for pharmaceutical research, development, and production.

They also lack the autonomous and long-term EU-level financing mechanism with independent governance that the report recommends, for example, a European biomedical agency with secure thirty-year funding.

APL's mandate is limited to Sweden, it is, however, engaged with EU-level coordination tools such as the Health Emergency Preparedness and Response Authority (HERA). HERA focusses on joint procurement frameworks designed to pool demand across Member States.

The initiative is preferring market solutions from state owned ones, this enhances the already discussed limits of how much Public Pharma can be in approaches like APL on a European level. The fragmentation and focus on private solutions weakens Europe's collective resilience, especially in light of the European Commission's recent calls for joint stockpiling and procurement(European Commission, 2025).

Thus, while APL is a powerful national exemplar that demonstrates how public ownership can address multiple pharmaceutical market failures, fully realizing the vision outlined in the Forio et al. report requires scaling up such models into an interoperable, EU-level public pharmaceutical infrastructure with broader competencies in financing, coordination, and transnational solidarity.

04
LIMITS OF APL

Profit Orientation Even in State Ownership

The main Limit APL faces is its own profit orientation. Swedish state-owned enterprises are subject to a strict ownership policy that emphasizes commercial orientation alongside public responsibility. In April 2025, the government introduced a new ownership policy, which reaffirmed that state companies should operate on a commercial basis, ensure good corporate governance, generate sustainable value creation, demonstrate adaptability and responsibility, serve public preparedness needs, and act transparently. The Ministry of Finance stressed that commercially driven state-owned enterprises must deliver value to taxpayers, making profitability a central expectation (Government of Sweden, 2025).

For APL, these requirements are specified in the state-owned enterprises report for 2022. APL was expected to achieve a return on equity of at least eight percent annually and to distribute at least fifty percent of its net income as dividends, taking into account capital structure and investment needs. However, the company's return on equity in 2022 was only one percent, and no dividend was paid because the performance targets were not met (Riksdagen, 2023).

A potential surplus of the company could be seen as a form of taxation, as it gives the state the opportunity to reinvest the money. Among other examples, funds could be allocated to scale up domestic production of essential antibiotics and other critical medicines, reducing dependency on international suppliers and mitigating risks highlighted by recent global supply chain disruptions. The money could also foster collaborations with universities and public research institutions, creating a robust ecosystem for innovation in line with Public Pharma principles of equity, transparency, and needs-driven development, ultimately moving Sweden closer to a fully public, resilient, and socially accountable pharmaceutical system.

However, the strict ownership policy that emphasizes commercial orientation alongside public responsibility limits how much the company can be used to address market failures. The very reason why profit-driven models often fail to deliver e.g., novel antibiotics or treatments for epidemic pathogens, is that they are not expected to be profitable (Heled, Rutschman, & Vertinsky, 2020).

At a systemic level, Public Pharma, according to the People's Health Movement, must not be reduced to a mechanism for patching market failures. It is a different way of thinking about health in general. Healthcare should remain uncommodified, ensuring access based on need rather than on making profit. The strict ownership policy that emphasizes commercial orientation limits this shift in thinking about health.

A Public Pharma future still lies ahead

Despite its profit orientation, APL still plays a critical role in combating market failures and demonstrating the potential of a public pharmaceutical future, but APL alone cannot address all structural weaknesses in Sweden's pharmaceutical market. For antibiotics production, for instance, the main challenges lie in scaling up production and ensuring sustained funding. The antibiotics market continues to depend heavily on imports from Asia, and current local production capacity is not yet sufficient to cover national needs. This situation, however, does not strengthen the case for greater involvement of private enterprises; rather, it underscores the importance of further investment in and reinforcement of local production capacity (Reuters, 2025).

In the area of rare diseases, Sweden's 2025 reimbursement reforms introduce higher cost-effectiveness thresholds (ICERs) for orphan drugs, aiming to improve access. Still, APL does not directly develop such drugs except when working through public–private or academic partnerships, such as those fostered by Medaffcon (2025) or Uppsala University's SweDeliver initiative (Uppsala University/SweDeliver, 2024).

At the European level, structural issues complicate resilience. APL is tasked with addressing Swedish needs, but its mandate is not fully extended to international supply shortages or broader EU-level coordination. The European Commission's Pharmaceutical Strategy for Europe proposes mechanisms like joint procurement and stockpiling of medicines to enhance supply security, but it does not explicitly support or promote state-owned pharmaceutical production (European Commission, n.d.). As state-owned production has the benefits shown in this report to tackle the market failures also identified by Florio et al. It has to be concluded that the EU structurally inhibits implementing solutions towards its own analysis of market failures (Florio et al., 2021).

Implementation of these measures, however, remains uneven across Member States (European Commission, 2023; European Commission ECHO, 2025). Moreover, this limitation highlights a deeper regulatory challenge: unlike Sweden's APL, the EU does not possess a framework for public pharmaceutical financing on a comparable scale. Instead, EU lawmaking continues to reflect neoliberal tendencies, favouring procurement mechanisms that incentivize private, for-profit companies to restore some production to Europe (Kunzlik, 2017). In doing so, the underlying problems created by profit-driven supply chains and selective product choices are left intact.

05

CONCLUSION: APL AND THE FUTURE OF PUBLIC PHARMA

The case of Apotek Produktion & Laboratorier (APL) demonstrates that publicly owned pharmaceutical infrastructure can play a decisive role in advancing equitable access to medicines, national preparedness, and health sovereignty. From its roots in extemporaneous compounding to its expansion into sterile manufacturing and antibiotic production, APL shows how public ownership can address market failures that private firms systematically neglect. Yet, it also highlights the constraints of operating within a policy environment that prioritizes commercial performance over social objectives. We were not able to fully analyze those constraints as we did not receive a reply on our questions from APL. Sweden's state ownership framework, while ensuring efficiency and accountability, still subjects APL to profit expectations that can limit its ability to fully realize the transformative goals envisioned by the People's Health Movement (2024).

To move from a corrective to a transformative model of Public Pharma, Sweden—and Europe more broadly—must reimagine public pharmaceutical enterprises as instruments of collective health, not as quasi-commercial entities. This requires decoupling medicine production from profit imperatives and embedding open science,, and ecological accountability into public-sector R&D. Internationally, scaling initiatives like APL into a coordinated European network of Public Pharma initiatives, supported by stable public funding and open knowledge sharing, could form the backbone of a resilient and democratic pharmaceutical system.

APL's experience thus offers both a blueprint and a warning: it confirms the feasibility of public production for public health but also reveals how easily this mission can be diluted when subordinated to market logic. A truly public pharmaceutical future—one grounded in solidarity, sustainability, and the right to health—demands not only more APLs, but also a new governance paradigm in which medical innovation, ownership, and access are treated as global public goods rather than instruments of private accumulation.

06
REFERENCES

Apotek Produktion & Laboratorier. (n.d.-a). Life science – Available production area. Retrieved August 27, 2025, from https://www.apl.se/in-english/life-science/available-production-area.html

Apotek Produktion & Laboratorier. (n.d.-b). About APL – Our operations. Retrieved August 27, 2025, from https://www.apl.se/in-english/about-apl.html

Apotek Produktion & Laboratorier. (n.d.-b). Available production area at APL. Retrieved October 10, 2025, from: https://www.apl.se/in-english/life-science/available-production-area.html

Apotek Produktion & Laboratorier. (n.d.). Vårt hållbarhetsarbete. Retrieved October 16, 2025, from https://www.apl.se/om-apl/vart-hallbarhetsarbete.html

Apotek Produktion & Laboratorier (APL). (2025). About APL: Our role in society. Retrieved from https://www.apl.se

Apotek Produktion & Laboratorier. (2024, April 10). APL and CurifyLabs partnership to support critical patient groups through 3D printing of medicines [Press release]. https://press.apl.se/posts/pressreleases/apl-and-curifylabs-partnership-to-support-cri

APL & CurifyLabs partnership announcement. (2024). APL and CurifyLabs joint effort on 3D-printed extemporaneous medicines. APL Press Release. Retrieved August 27, 2025, from https://press.apl.se/posts/pressreleases/apl-and-curifylabs-partnership-to-support-cri

Balasegaram, M., Kolb, P., McKew, J., Menon, J., Olliaro, P., Sablinski, T., ... Thomas, Z. (2017). An open source pharma roadmap. PLOS Medicine, 14(4), e1002276. https://doi.org/10.1371/journal.pmed.1002276

Business Focus Magazine. (2025). APL: Customised for better health. https://businessfocus-magazine.com

CARB-X. (2025). Why big pharma has abandoned antibiotics. Retrieved August 27, 2025, from https://carb-x.org/carb-x-news/why-big-pharma-has-abandoned-antibiotics/

ClinicalTrials.gov. (2020). Treatment of oral lichen planus with clobetasol APL oral gel 0.025% (NCT04364555). U.S. National Library of Medicine. https://clinicaltrials.gov/study/NCT04364555

Contract Pharma. (n.d.). Sterile Manufacturing Trends & Overcoming Challenges. Retrieved August 27, 2025, from https://www.contractpharma.com/exclusives/sterile-manufacturing-trends-overcoming-challenges/

CurifyLabs. (2024). Press release: APL and CurifyLabs collaboration on 3D printing. Retrieved from https://news.curifylabs.com

De Ceukelaire, W., & Joye, D. (2024). Public pharmaceutical production for health equity. People's Health Movement Policy Brief. https://phmovement.org/sites/default/files/2025-01/Public%20Pharma%20-%20Policy%20Brief%20%28EN%29%2012.2024.pdf

De Falco, R. (2023). Transformative policies to realise universal access to medicines: Why we need knowledge commons and public options for pharmaceuticals to realise the right to health. Global Initiative for Economic, Social and Cultural Rights. https://gi-escr.org/en/resources/publications/transformative-policies-to-realise-universal-access-to-medicines-pub

European Commission, Directorate-General for Health and Food Safety. (n.d.). A pharmaceutical strategy for Europe. Retrieved November 24, 2025, from https://health.ec.europa.eu/medicinal-products/pharmaceutical-strategy-europe_en

European Commission. (2025). EU Health Union report. European Commission. https://ec.europa.eu/health/funding/health-union_en

European Commission ECHO. (2025, February 14). European Commission presents EU strategy for medical countermeasures. European Commission. https://civil-protection-humanitarian-aid.ec.europa.eu/news-stories/news/european-commission-presents-eu-strategy-medical-countermeasures-2025-02-14_en

European Parliamentary Research Service. (2021). European pharmaceutical research and development: Could public infrastructure overcome market failures? European Parliament. https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU%282021%29697197_EN.pdf

Evans, E. J., Meyer, A., & Conti, R. M. (2024). Sizing a market entry reward for the development of new antibiotics (M-RCBG Associate Working Paper No. 232). Mossavar-Rahmani Center for Business & Government, Harvard Kennedy School. https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/Final_AWP_232.pdf

Extemporaneously compounded medicines – Australian Prescriber. (2017, February 1). Extemporaneously compounded medicines. Australian Prescriber, 40(1), 5–8. https://doi.org/10.18773/austprescr.2017.001

Florio, M., Pancotti, C., & Prochazka, D. (2021). A public infrastructure for medicines in Europe. European Association for Evolutionary Political Economy. https://eaepe.org

Formulation Challenges and Strategies to Develop Pediatric ... - MDPI. (2021). Formulation challenges ... pediatric populations. Retrieved from https://www.mdpi.com/2227-9067/9/4/488

GAO. (2025). Drug Shortages: HHS Should Implement a Mechanism to Mitigate Supply Chain Vulnerabilities (GAO-25-107110). Retrieved from https://www.gao.gov/products/gao-25-107110

Government of Sweden. (2022). Annual report for state-owned enterprises. Stockholm: Ministry of Enterprise and Innovation. Retrieved August 27, 2025, from https://www.government.se/reports/2022/05/annual-report-state-owned-enterprises-2022

Government of Sweden. (2025, April 24). New ownership policy for state-owned enterprises. Government Offices of Sweden. https://www.government.se/articles/2025/04/new-ownership-policy-for-state-owned-enterprises/

Heled, Y., Rutschman, A. S., & Vertinsky, L. (2020). The problem with relying on profit-driven models to produce pandemic drugs. Journal of Law and the Biosciences, 7(1). https://doi.org/10.1093/jlb/lsaa060

it-kanalen. (n.d.). APL väljer riskavfallskärl som ett [APL chooses risk waste containers]. Retrieved October 17, 2025, from https://it-kanalen.se/apl-valjer-riskavfallskarl-som-ett/

Johns Hopkins University. (2020). The pandemic and the supply chain: Addressing gaps in pharmaceutical production and distribution. Retrieved from https://publichealth.jhu.edu/sites/default/files/2023-04/pandemic-supply-chain.pdf

Kosack, S., & Fung, A. (2014). Does transparency improve governance? Annual Review of Political Science, 17, 65–87. https://doi.org/10.1146/annurev-polisci-032210-144356

Krikorian, G., & Torreele, E. (2021). We cannot win the access to medicines struggle using the same thinking that causes the chronic access crisis. Health and Human Rights, 23(1), 119–127. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8233016/

Kunzlik, P. (2017). Neoliberalism and the European Public Procurement Regime. In Cambridge Yearbook of European Legal Studies, 15, 283–356. Cambridge University Press. https://doi.org/10.5235/152888713809813666

Lipum AB. (2023, October 2). Lipum's GMP production of SOL-116 successful.Lipum. https://lipum.se/eng/blog/mfn_news/lipums-gmp-production-of-sol-116-successful/

Medaffcon. (2025). Sweden's TLV updates reimbursement model for rare diseases. Medaffcon. https://www.medaffcon.com/swedens-tlv-updates-reimbursement-model-for-rare-diseases/

Mohiuddin, A. K. (2018). Extemporaneous compounding: Cautions, controversies and convenience. IP International Journal of Comprehensive and Advanced Pharmacology, 3(4), 124–137. Retrieved from https://ijcap.in/archive/volume/3/issue/4/article/3206/pdf

OECD. (2024). Trust in national government, 2023 [Figure 1]. In OECD Survey on Drivers of Trust in Public Institutions – 2024 Results: Country Notes – Sweden. OECD. https://www.oecd.org/en/publications/oecd-survey-on-drivers-of-trust-in-public-institutions-2024-results-country-notes_a8004759-en/sweden_11ca1946-en.html

People's Health Movement. (2024). Public Pharma: Policy brief. https://phmovement.org/sites/default/files/2025-01/Public%20Pharma%20-%20Policy%20Brief%20%28EN%29%2012.2024.pdf

PharmaSource. (2025). APL company profile. Retrieved August 27, 2025, from https://pharmasource.global/supplier-profile/apl/

Prevalence, Risk, and Challenges of Extemporaneous Preparation... (2023). Prevalence, risk, and challenges... extemporaneous preparation. PMC. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10058853

Radder, H., & Smiers, J. (2024). Open science and public knowledge: Rethinking pharma. Amsterdam: University of Amsterdam Press. https://www.uva.nl/en/research/publications/press-books/open-science-and-public-knowledge.html

Radder, H., & Smiers, R. (2024). Medical research without patents: It's preferable, it's profitable, and it's practicable. Accountability in Research. https://doi.org/10.1080/08989621.2024.2324913

Region Östergötland. (2023). Rekommendationer för inhalationsbehandling – natriumklorid 3% (Tillverkad av APL). Region Östergötland. https://vardgivare.regionostergotland.seb

Regeringskansliet. (2025a). Statens ägarpolicy 2025 [State ownership policy 2025]. https://www.apl.se/download/18.1a5a9c951967b32d0274ea97/1745936235510/statens-agarpolicy-2025_.pdf

Regeringskansliet. (2025b). State ownership policy 2025. https://www.government.se/contentassets/9c0ce65139ce4255b3a8f8bcd720113d/state-ownership_policy_2025_webb.pdf

Reich, M. R. (2018). The core roles of transparency and accountability in governance of global health public-private partnerships. Health Systems & Reform, 4(3), 239–248. https://doi.org/10.1080/23288604.2018.1465880

Reuters. (2025, March 9). Europe should diversify drug supplies to face health crises, ministers say. Reuters. https://www.reuters.com/business/healthcare-pharmaceuticals/europe-should-diversify-drug-supplies-face-health-crises-ministers-say-2025-03-09/

Riksdagen. (2023). Årsredovisning för företag med statligt ägande 2022 [Annual report for state-owned enterprises 2022]. Swedish Parliament. https://www.riksdagen.se/sv/dokument-lagar/dokument/skrivelse/arsredovisning-for-foretag-med-statligt-agande-2022_HA0321

Roschier. (2024, December 15). Sweden modernizes its patent system. https://www.roschier.com/newsroom/sweden-modernizes-its-patent-system

Roser, M. (2018). Trust (Our World in Data). Our World in Data. Retrieved August 27, 2025, from https://ourworldindata.org/trust

Sweden Herald. (2025, June 5). Sweden to acquire Strängnäs antibiotic factory for crisis preparedness. https://swedenherald.com/article/

sweden-to-acquire-strangnas-antibiotic-factory-for-crisis-preparedness
Swedish National Data Service. (n.d.). Legal aspects of research data. https://snd.se/en/resources/handbook-data-containing-personal-information/legal-aspects

Swedish Research Council. (n.d.-a). Making research data accessible and FAIR. https://www.vr.se/english/mandates/open-science/open-access-to-research-data/support-and-tools-/making-research-data-accessible-and-fair.html

Swedish Research Council. (n.d.-b). Publishing open access. https://www.vr.se/english/applying-for-funding/requirements-terms-and-conditions/publishing-open-access.html

Transparency International. (2024). Corruption in Sweden. Transparency International. Retrieved August 27, 2025, from https://en.wikipedia.org/wiki/Corruption_in_Sweden

Uppsala University/SweDeliver. (2024). SweDeliver: Future drug delivery research. Uppsala University. https://www.uu.se/en/research/swedelever

World's Top Exports. (2025). Top antibiotics exporters by country 2023. Retrieved August 27, 2025, from https://www.worldstopexports.com/top-antibiotics-exporters-by-country/

¡Salud para Todos y Todas, Ahora!
Movimiento para la salud de los pueblos

An analysis of the role of the public pharmaceutical industry in Sweden and the case of Apotek Produktion & Laboratorier (APL), exploring its contribution to equitable access to medicines, health resilience and pharmaceutical sovereignty.

www.phmovement.org