COORDINATED PROCUREMENT: LESSONS LEARNED GLOBALLY AND POTENTIAL APPLICATION IN ASEAN AND IMPLICATIONS FOR ANTIBIOTICS

REPORT

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HEALTH INTERVENTION AND TECHNOLOGY ASSESSMENT PROGRAM FOUNDATION (HITAP), THAILAND

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Abbreviations

ACTD	ASEAN Common Technical Dossier
ACTR	ASEAN Common Technical Requirements
ADSSR	ASEAN Drug Security and Self-Reliance
AHC 3	ASEAN Health Cluster 3
AHMM	ASEAN Health Ministers' Meeting
AMR	Antimicrobial resistance
AMRH	African Medicines Regulatory Harmonization initiative
APPM	African Pooled Procurement Mechanism
APHECS	ASEAN Public Health Emergency Coordination System
ASEAN	Association of Southeast Asian Nations
ATIGA	ASEAN Trade in Goods Agreement
AVSSR	ASEAN Vaccine Security and Self
BVGH	BIO Ventures for Global Health
CDC	Africa Centres for Disease Control and Prevention
CHAI	Clinton Foundation HIV/AIDS Initiative/Clinton Health Access Initiative
CoA	Certificate of Analysis
COPP	Certificate of Pharmaceutical Product
DAV	Drug Administration of Vietnam
DFTA	Australian Department of Foreign Affairs and Trade
DIAC	Drug Importation Approval Certificate
DNFM	National Directorate of Pharmacy & Medicines
EAC	East African Community
ECDS	Eastern Caribbean Drug Service
EML	Essential Medicines List
EMRO	WHO Eastern Mediterranean Region Office
FAAP	Fair and Affordable Pricing
FDA	Food and Drug Administration
GARDP	Global Antibiotic Research and Development Partnership
GBT	WHO's Global Benchmarking Tool
GCC	Gulf Cooperation Council
GDF	Global TB Drug Facility
GPO	Government Pharmaceutical Organisation
GPRO	Global Procurement Fund
GTFCC	Global Task Force on Cholera Control
HERA	Health Emergency Preparedness and Response
HITAP	Health Intervention and Technology Assessment Program Foundation
HTA	Health Technology Assessment
iCAPS	Initiative for Coordinated Antidotes Procurement in the South
LMICs	Low- and Middle-Income Countries

LPI	License per Invoice
MEAT	Most Economically Advantageous Tender
NEMLs	National Essential Medicines Lists
NPRA	National Pharmaceutical Regulatory Agency
NRA	National Regulatory Authority
NVI	Thailand's National Vaccine Institute (NVI)
PAHO	Pan American Health Organization
PEPFAR	US President's Emergency Plan for AIDS Relief
PIP	Pandemic Influenza Preparedness Framework
PPM	Pooled Procurement Mechanism
PPWG	ASEAN Pharmaceutical Product Working Group
PQ	WHO Prequalification
PSB	Procurement Services Branch
RF	Revolving Fund
RRMS	The ASEAN Regional Reserve of Medical Supplies
SADC	Southern African Development Community
SPPS	SADC Pooled Procurement Services
SOMHD	ASEAN Senior Officials' Meeting on Health Development
TFDA	Thai Food and Drug Administration
TGA	Australian Therapeutic Goods Administration
UHC	Universal Health Coverage
UN	United Nations
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
VII	Vaccine Independence Initiative
WHO	World Health Organization
WLA	WHO-Listed Authority

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Executive Summary

Challenge

Achieving Universal Health Coverage (UHC) requires a multifaceted approach to increase access to affordable health technologies. Coordinated procurement, referring to a range of organisational arrangements, is a mechanism for aggregating demand to purchase health technologies. Over the years, there has been a growth in the establishment of these mechanisms at the regional and global levels and has been utilised to increase access to health technologies. Antibiotics are life-saving health technologies and such coordinated mechanisms have been identified as means of increasing their access[1].

Study

To address this challenge, we conducted a scoping review and targeted consultations to draw lessons from global experiences on coordinated procurement at the inter-country level and assess the potential application to the Association of Southeast Asian Nations (ASEAN) as well as their implications for antibiotics.

Key findings

- The study identified 33 mechanisms globally, which were classified into three models of coordinated procurement:
    - Information sharing or informed buying, which involves the lowest commitment;
    - Collective bargaining or group contracting, which offers flexibility to use national systems while gaining from multi-country negotiation; and
    - Central purchasing and/or distribution, utilising a central procurement process, which is efficient and effective, yet resource-intensive.
- The benefits of coordinated procurement are sustainable pricing for buyers and suppliers, increased and timely access to health technologies, avenues for market shaping, stockpiling for low-prevalence diseases or for public health emergencies, quality assurance of health technologies as well as regional solidarity.
- Factors critical to the success of coordinated procurement mechanisms are political will and governance, harmonisation of regulatory and procurement processes across members, and sustainable financing.

Opportunities in the ASEAN region

ASEAN comprises 11 Member States, which are diverse in their systems and characteristics, and together, are the fourth largest economy. Over the years, ASEAN has initiated a range of efforts for coordinated action, including on health. While different forms of coordinated procurement have been proposed, there has not yet been a formal implementation. Antibiotics present an

opportunity for implementing coordinated procurement, in line with the high-level commitment in ASEAN to strengthen systems to "timely and sustainable access to safe, efficacious, affordable and quality antimicrobials"[2].

We therefore recommend the following strategic actions for coordinated procurement in ASEAN to support greater access to Reserve antibiotics alongside other priority medicines:

- **Pilot a model** for coordinated procurement by establishing a collective bargaining or group contracting model, focusing on high-price, low-volume health technologies (e.g. specific antibiotics or other relevant health technologies) with a small group of committed Member States;
- **Establish a neutral third-party secretariat** to manage the mechanisms, such as the ASEAN Centre for Public Health Emergencies and Emerging Diseases (ACPHEED) or United Nations agencies such as WHO and UNICEF. The countries involved need to ensure that the secretariat is accepted by all and acts in the best interest of the countries in the collaboration;
- **Formalise commitment** through a Ministerial-endorsed agreement or Memorandum of Understanding (MoU);
- **Streamline efforts for regulatory harmonisation** with the ASEAN Pharmaceutical Regulatory Framework (APRF) to create a fast-track regulatory pathway for jointly procured health technologies;
- **Leverage existing mechanisms** such as ASEAN Drug Security and Self-Reliance (ADSSR) and ASEAN Vaccine Security and Self-Reliance (AVSSR), where coordinated procurement has been identified as a priority or the ASEAN Regional Reserve of Medical Supplies (RRMS) which focuses on emergencies;
- **Design a sustainable financial model** for the mechanism with dedicated funding, for example, through a revolving fund with member contributions for operational costs, and provide adequate flexibility and support to Member States;
- **Utilise evidence** such as Health Technology Assessment (HTA) to identify cost-effective, optimal interventions and inform negotiation strategies;
- **Monitor and evaluate** the progress and effectiveness of the mechanism by identifying core indicators.

We also highlight three **immediate actions** that can be undertaken within the next 12 months:

- Political commitment: Secure formal statement of ASEAN Health Ministers to endorse the principle of coordinated procurement and include in the priorities of the next ASEAN Post-2015 Health Development Agenda (APHDA).

    - Host informal meeting(s) alongside ASEAN or global health events to raise awareness and initiate action
    - Create a concise policy brief, a “Champion's Brief”, for Health Ministers and Finance Ministers with a request to endorse
    - Announce endorsement at a high-level platform potentially such as the ASEAN Health Ministers' Meeting (AHMM)
- Pilot model: Draft a Pilot Project Memorandum of Understanding (MoU) or agreement focused on a single, high-price, low-volume product category (e.g., a specific group of antibiotics identified as a regional priority) among selected, committed members of ASEAN.
- Peer-to-peer learning: Organise learning opportunities for key representatives from ASEAN and technical exchange with representatives from other mechanisms for strengthening cross-border procurement systems, demand forecasting, supply chain management, among others.

Conclusion: Coordinated procurement is a powerful, proven strategy to improve access to affordable medicines and enhance regional health security. By starting with a focused, collaborative pilot, ASEAN can build a resilient, self-reliant system that improves access to antibiotics and moves decisively toward UHC.

Introduction

Achieving universal access to essential healthcare products remains a critical challenge across low- and middle-income countries (LMICs)[3]. While individual countries may have made notable strides in strengthening their procurement and regulatory systems, regional disparities in access, affordability, and quality persist.

Coordinated (or pooled) procurement refers to a strategic collaborative initiative that encompasses a range of procurement arrangements across countries. By aggregating demand or purchasing power among buyers, it offers a promising approach to improving process efficiency, reducing costs for both governments and suppliers through economies of scale, and ensuring the equitable distribution of medical products. These arrangements include sharing price information, jointly conducting market research, jointly negotiating prices, centrally contracting and purchasing, and/or distribution[4]. However, some countries continue to face challenges in accessing health technologies at affordable prices, particularly those with small markets or limited resources. Coordinated procurement across countries is one of the mechanisms by which to address these challenges and improve affordable access to health technologies[5]. Evidence-informed approaches to strategic purchasing, including the use of Health Technology Assessment (HTA), have been recognised as tools that can support coordinated procurement by strengthening health decision-making across countries[5, 6].

Antibiotics are life-saving health technologies that have been identified as health technologies that could benefit from coordinated procurement, particularly those characterised by low volume and high prices [7]. The United Nations Political Declaration on Antimicrobial Resistance (AMR) also recognised the importance of improving access to antimicrobials, particularly in developing countries [2, 8]. In response to the growing need to address the challenge and to increase access to essential antibiotics, the SECURE initiative was established as a partnership between GARDP and the World Health Organization (WHO).

At a regional level, the Association of Southeast Asian Nations (ASEAN) Leaders' Declaration on combating AMR and acknowledged the importance of strengthening health financing mechanisms and supply chain management, among other efforts, "to ensure equitable, timely and sustainable access to safe, efficacious, affordable and quality antimicrobials"[9, 10]. SECURE, in collaboration with WHO and HITAP, conducted a stakeholder consultation in Thailand in 2025 to improve access to antibiotics and better understand the role of regional coordinated procurement mechanisms[11].

In this context, this study seeks to understand the key features of existing global and regional coordinated procurement mechanisms; learn about the challenges, enabling factors, and constraints (including the role of regulatory policy and administrative environment) for

coordinated procurement mechanisms; and provide recommendations for the ASEAN region, as well as identify implications for antibiotics. This study directly supports the goal of achieving Universal Health Coverage (UHC) and a core target under Sustainable Development Goal 3 by emphasising the need for affordable access to safe, effective, and quality-assured medicines and health products.

To achieve the defined objectives, the study team first conducted a scoping review of existing coordinated procurement mechanisms at both the regional and global levels. This foundational research was subsequently complemented by virtual consultations with stakeholders who are either currently involved in or planning to establish such mechanisms. Furthermore, a survey was disseminated among partner organisations across various ASEAN Member States. This report details the key insights and lessons learned extracted from the scoping review and stakeholder consultations, provides an overview of existing regional initiatives within ASEAN, and concludes with strategic recommendations for establishing an effective coordinated procurement mechanism across the ASEAN region.

Approach

The study employed a mixed qualitative methodological approach that integrated a targeted literature review with stakeholder engagement activities. Implementation was conducted in two phases. The first phase involved a document review to identify existing coordinated (or pooled) procurement mechanisms at both regional (covering two or more countries or jurisdictions) and global levels. The second phase comprised a virtual consultation and survey to complement the document review and derive lessons learned.

Document Review

The document review explored both academic and grey literature to ensure understanding of conceptual frameworks and implementation experiences. Peer-reviewed articles were retrieved from five academic databases: PubMed, Scopus, Web of Science, ScienceDirect, and Embase. The inclusion and exclusion criteria are summarised in Appendix 1.

Grey literature sources include government reports and publications from the ministries of health, regulatory authorities (e.g., drug agencies), and international organisations such as the WHO), ASEAN Secretariat, and other relevant regional or international bodies. Policy and legislative documents were also reviewed.

The review was limited to English-language publications to maintain analytical consistency and ensure accessibility of sources while capturing a wide range of regional and international perspectives. Although this may have excluded some relevant local-language materials, English remains the primary medium for academic, policy, and intergovernmental communication within ASEAN. The potential limitations of this restriction are acknowledged in the discussion. The data extraction form includes general information of the article such as title, author, year of publication and type of article; general information on the coordinated procurement mechanism such as the health technologies involved, geographical region, and objectives, stakeholders (management, members, funders), implementation, financing such as source of funding and link to the Essential Medicine List (EML) and HTA; and lessons learned including facilitators, constraints, implementation experiences and recommendations. The data dictionary used for the document review is found in Appendix 1.

Consultations

Two stakeholder consultations and targeted, one-on-one consultations were conducted to complement the document review and to capture experiential insights on coordinated procurement mechanisms in the ASEAN region and globally.

The first stakeholder consultation, held on 8 July 2025 in Bangkok, brought together key regional stakeholders. Participants expressed strong interest in advancing regional coordinated

procurement, while also highlighting substantial regulatory, legal, and financial barriers to implementation. In addition, stakeholders emphasised the need for stronger demand forecasting and prioritisation informed by AMR considerations. Recommendations included early and sustained engagement with manufacturers, leveraging the technical and convening support of United Nations agencies, and drawing on lessons from existing coordinated procurement initiatives. In particular, stakeholders referred to real-world evidence from HITAP's Peritoneal Dialysis (PD) study [8] as a relevant example to inform future regional efforts. See the full report here.

To supplement the findings from the document review and initial consultation, additional targeted consultations were undertaken. Individuals with prior experience in cross-country procurement of health technologies were purposively selected and invited via email, which included detailed study information. Discussions were guided by a semi-structured consultation guide (Appendix 2) and conducted via Microsoft Teams (Redmond, WA). With participants' consent, all sessions were recorded and subsequently analysed.

At the second stakeholder consultation, conducted on 26 November 2025, preliminary findings from the study were presented to solicit further stakeholder input. Key discussion points (Appendix 7) related to considering other types of health technologies, beyond pharmaceuticals and vaccines, to more fully integrate diagnostics and medical devices, particularly in vitro diagnostics, into access, procurement, and regulatory strategies. Coordinated procurement was widely recognised as a key enabler for improving access and stimulating market entry, informed by international experiences from the Nordic countries and the European Union (EU). These models underscored the importance of clear governance structures, strong political endorsement, and alignment of national procurement systems. Regulatory harmonisation, was identified as an important enabler, especially for diagnostics and medical devices, through the accelerated use of existing regional platforms and regulatory simplification to reduce costs and approval timelines. Stakeholders agreed with an initial focus on a small group of willing and prepared countries and prioritisation of high-impact products where regional strengths exist, such as antivenoms and continuous ambulatory peritoneal dialysis (CAPD) solution. Overall, the importance of leveraging existing regional platforms such as ADSSR, AVSSR and combining political leadership, regional coordination, and technical expertise to transition from dialogue to concrete implementation.

A survey was also distributed to a representative from each ASEAN Member State (n=11) from HITAP's HTA partners in ASEAN to gather information on their knowledge, perspectives, expectations, and perceived challenges and opportunities related to coordinated procurement in the region, with the full set of survey questions provided in Appendix 3.

Data Analysis

Data from the document review, consultations, and survey were analysed thematically. Descriptive analysis in Microsoft Excel was performed on the data charted from the document review and survey. Findings from all sources were verified to identify common themes, patterns, and lessons learned regarding the design, implementation, and enabling factors of coordinated procurement mechanisms. The findings were used to inform the development of context-specific recommendations for ASEAN, which will be further refined through stakeholder consultations to ensure practical relevance and alignment with regional priorities.

Key insights

PART I: Global landscape of coordinated procurement

1. Definition and conceptual models

Based on the scoping review, a total of 33 coordinated procurement mechanisms or approaches were identified. These mechanisms were identified by virtue of their stated intention to coordinate efforts for purchasing, across countries, with varying levels of commitment. The number of mechanisms has increased over time, with 15 mechanisms being established since 2011 and one under development to be launched. More than half of these mechanisms (n=19) focused on medicines as the primary health technology. The medicines covered vary from anti-retrovirals, tuberculosis medicines, as well as those that were high-cost medicines for rare diseases. In some cases, coordinated procurement was identified as an option for cancer medicines for children, hepatitis C, and leishmaniasis. Most of these mechanisms were managed at the global level (n=14), followed by Europe (n=6), Asia (n=4), Africa (n=4), Americas (n=3) and the Middle East (n=2). Initiatives by the United Nations (UN) agencies such as the United Nations Children's Fund (UNICEF) Supply Division, United Nations Fund for Population Activities (UNFPA) Procurement Services Branch (PSB), and the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), were among the earliest. The earliest regional initiatives were the Pan American Health Organization (PAHO) Revolving Fund (RF) for vaccines (1979) and the Gulf Cooperation Council (GCC) in 1978. One mechanism is yet to be formally launched with preparatory activities recorded in 2025 (Southern African Development Community (SADC) - SADC Pooled Procurement Services (SPPS)).

These coordinated procurement mechanisms have been grouped into three archetypes: (a) information sharing/informed buying; (b) collective bargaining/group contracting; and (c) central purchasing and/or distribution. These have been adapted from other types of mechanisms and grouped further for analytical purposes[4, 12, 13]. Information sharing/informed buying refers to members sharing information ranging from the price of health technologies to suppliers, among others, such as the Valletta Declaration. Collective bargaining/group contracting refers to negotiating jointly but having separate contracts, including joint HTAs, such as the Beneluxa Initiative. The third is central purchasing and/or distribution, whereby there is a central contracting process for health technologies. Across these archetypes, there are some mechanisms that are secretariat-led, member-led or donor-led (see next section). Each archetype for coordinated procurement has its strengths and limitations and the choice of selecting a suitable model depends on the objectives of the participating members and the degree of commonality in systems and processes. See Table 1 for a summary of the three archetypes and their strengths and limitations.

Table 1. Strengths and limitations of each archetype of coordinated procurement.

Conceptual model	Strengths	Limitations
Information sharing/informed buying;	Minimal resource requirement	Low commitment and participation
Collective bargaining/group contracting	Effective mechanism for negotiating sustainable prices, with flexibility for countries to purchase using their own systems	Scale of operations may be limited
Central purchasing and/or distribution	Effective mechanism for high-volume joint purchases with potential for technical assistance to members throughout the process	Requires resources to set-up and maintain in the long-term

While mechanisms built on existing regional collaborations or to address common challenges, that is of note in the post-COVID-19 pandemic era, are mechanisms that focus on public health emergencies, such as the EU joint procurement, now managed through Health Emergency Preparedness and Response (HERA); in some cases, there are initiatives for stockpiling for pandemic preparedness such as the Pandemic Influenza Preparedness (PIP) Framework or the veterinary vaccine banks. It may be noted that the mechanisms listed here are those that were identified through the scoping review, and it is possible that there are others that have not been documented or included in this study. See Table 2 below for a summary of mechanisms, included in this review. It may be noted that the mechanisms listed here are those identified in the document review and there may be other mechanisms that may not have featured in the review.

Table 2. Summary of coordinated procurement mechanisms identified.

Sr. No.	Mechanism	Establishment	Health technology (primary)	Region	Type	Key Lesson / Notable Feature
1	ASEAN Vaccine Security and Self-Reliance (AVSSR) initiative	2014	Vaccines	Asia	Information sharing/informed buying	Strong political declaration, but operational implementation is limited; based on voluntary participation.
2	Valletta Declaration	2017	Medicines	Europe	Information sharing/informed buying	A commitment to information sharing among EU members.
3	ASEAN Drug Security and Self-Reliance (ADSSR)	2021	Medicines	Asia	Information sharing/informed buying	Feasibility assessed; highlights fragmentation and need for production capacity.
4	Voluntary Information and Price Sharing Database (VIPSD)	2021	Medicines	Global	Information sharing/informed buying	A global platform to improve price transparency for Member States.
5	Southern African Development Community (SADC) - SADC Pooled Procurement Services (SPPS)	To be formalised	Medicines	Africa	Information sharing/informed buying	Demonstrates the step-by-step process of moving from concept to operationalisation which can take time.
6	Gulf Cooperation Council (GCC) group purchasing program	1978	Medicines	Middle-East	Collective bargaining/ group contracting	Member-led joint tendering with individual payments, requiring high homogeneity.
7	Clinton Foundation HIV/AIDS Initiative/Clinton Health Access Initiative (CHAI)	2002	Medicines	Global	Collective bargaining/ group contracting	Effective third-party negotiator model that achieves significant price reductions.

Sr. No.	Mechanism	Establishment	Health technology (primary)	Region	Type	Key Lesson / Notable Feature
8	Baltic Procurement initiative	2012	Vaccines	Europe	Collective bargaining/ group contracting	Successful joint procurement among a small, homogenous group of countries.
9	Beneluxa initiative	2015	Medicines	Europe	Collective bargaining/ group coupling	Pioneered joint HTA and horizon scanning to inform price negotiations for high-cost drugs.
10	Fair and Affordable Pricing (FAAP)/Visegrad collaboration	2017	Medicines	Europe	Collective bargaining/ group contracting	Focuses on fair pricing for Central European countries with similar economic levels.
11	Global Procurement Fund (GPRO)	2017	Medicines	Global	Collective bargaining/ group contracting	Established to provide affordable access to hepatitis medicines and diagnostics particularly in LMICs.
12	Pan American Health Organization (PAHO) Revolving Fund (RF) for vaccines	1979	Vaccines	Americas	Central purchasing and/or distribution	Gold standard for a sustainable, institutionalised regional procurement mechanism.
13	Organisation of Eastern Caribbean States (OECS) Pharmaceutical Procurement Service (PPS)	1986	Medicines	Americas	Central purchasing and/or distribution	A long-standing model for small island states to achieve economies of scale.
14	Vaccine Independence Initiative (VII)	1991	Vaccines	Asia	Central purchasing and/or distribution	Allows countries to use domestic funds while

Sr. No.	Mechanism	Establishment	Health technology (primary)	Region	Type	Key Lesson / Notable Feature
						leveraging UNICEF's procurement services.
15	ARIVA (Projet d'Appui au Renforcement de l'Indépendance Vaccinale en Afrique)	1991 (Discontinued)	Vaccines	Africa	Central purchasing and/or distribution	**Cautionary tale:** Ceased operations due to unsustainable financing and cost escalation.
16	PAHO Strategic Fund	2000	Medicines and health supplies	Americas	Central purchasing and/or distribution	Extends the PAHO model beyond vaccines to essential medicines and supplies.
17	Global TB Drug Facility (GDF)	2001	Medicines	Global	Central purchasing and/or distribution	Successful global central purchaser for a specific disease area, ensuring quality.
18	BIO Ventures for Global Health (BVGH) African Access Initiative	2003	Medicines	Global	Central purchasing and/or distribution	Focuses on improving access to cancer medicines in Africa through partnership.
19	US President's Emergency Plan for AIDS relief (PEPFAR)	2003	Medicines	Global	Central purchasing and/or distribution	Donor-funded model that massively scaled up access to ARVs but raises sustainability questions.
20	East African Community pooled procurement mechanism	2005	Medicines	Africa	Central purchasing and/or distribution	A regional effort facing challenges with regulatory harmonisation and commitment.
21	Vaccine banks for animal diseases	2006	Vaccines	Global	Central purchasing and/or distribution	Demonstrates the utility of strategic stockpiling for low-

Sr. No.	Mechanism	Establishment	Health technology (primary)	Region	Type	Key Lesson / Notable Feature
						probability, high-impact events.
22	Asthma Drug Facility (ADF)	2008 (Discontinued)	Medicines	Global	Central purchasing and/or distribution	**Cautionary tale:** Discontinued due to limited supplier participation and market issues.
23	Global Fund Pooled Procurement Mechanism (PPM)	2009	Medicines	Global	Central purchasing and/or distribution	Uses procurement agents to manage supply for grant recipients, ensuring quality and cost-control.
24	Pandemic Influenza Preparedness (PIP) Framework	2011	Vaccines	Global	Central purchasing and/or distribution	A legal framework for virus sharing and access to vaccines for pandemics.
25	Initiative for coordinated antidotes procurement in the South-East Asia Region (iCAPS)	2011	Health supplies	Asia	Central purchasing and/or distribution	Successful model for pooled procurement of low-demand, high-need products (antidotes).
26	EU Joint Procurement Agreement	2014	Health supplies	Europe	Central purchasing and/or distribution	A legally binding framework for joint procurement of medical countermeasures for crises.
27	Global Task Force on Cholera Control (GTFCC)	2014	Vaccines	Global	Central purchasing and/or distribution	Coordinates a global stockpile of oral cholera vaccines for outbreak response.
28	Nordic Pharmaceutical Forum	2015	Medicines	Europe	Central purchasing and/or distribution	Uses environmental criteria (MEAT) in addition to price for tender evaluation.

Sr. No.	Mechanism	Establishment	Health technology (primary)	Region	Type	Key Lesson / Notable Feature
29	COVAX Facility	2020	Vaccines	Global	Central purchasing and/or distribution	**Mixed result:** Scaled rapidly but exposed weaknesses in donor dependency and global equity.
30	Small Island Developing States pooled procurement initiative in the WHO African Region	2020	Medicines	Africa	Central purchasing and/or distribution	Addresses the unique challenges of small, isolated markets.
31	UNICEF Supply Division / Gavi	1962 / 2000	Vaccines	Global	Central purchasing and/or distribution	The world's largest vaccine purchaser, combining procurement with donor funding (Gavi).
32	United Nations Fund for Population Activities (UNFPA) Procurement Services Branch (PSB)	Early 1970s	Health supplies	Global	Central purchasing and/or distribution	Key central purchaser for reproductive health commodities.
33	United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)	Not specified	Medicines	Middle-East	Central purchasing and/or distribution	Provides a stable supply of medicines in a protracted humanitarian context.

2. Key considerations in establishing coordinated procurement mechanisms in the global context

Key considerations in establishing coordinated procurement mechanisms span six areas: governance; financing and pricing; regulatory and quality systems; operations and procurement processes; outcomes and equity; and other considerations. These reflect insights from the global context, while ASEAN-specific examples will be discussed in Part II: Implications for ASEAN.

2.1 Governance

Governance and leadership structures

There are different types of leadership and governance structures across existing procurement mechanisms: ranging from secretariat-led, member-led, to donor-led structures (Table 3). In a secretariat-led structure, a dedicated, independent (or semi-independent) organisation acts on behalf of participating buyers or countries[14]. The secretariat conducts procurement (tendering, contracting with suppliers), rather than each buyer individually. This structure works best when the secretariat has high technical capacity and members trust it to act on their behalf[15]. The PAHO Strategic Fund and Revolving Fund (RF) are considered institutionalised and highly successful third-party secretariat structures. In this system, PAHO acts as the central coordinating body, negotiating with suppliers, consolidating demand, overseeing logistics, providing technical support and ensuring the quality assurance and technical requirement harmonisation in the Latin America and the Caribbean (LAC) region[16]. Through this role, PAHO has secured multiple long-term agreements (LTAs) with pre-contracted suppliers, enabling more affordable pricing and sustained access to critical health products during crises[17]. According to the consultation, while PAHO establishes the governance framework, Member States retain decision-making autonomy and national sovereignty. The regional Directing Council, composed of heads of state and ministers of health, meets quarterly to resolve disputes and provide high-level guidance.

Table 3. Governance and leadership structures.

Governance and leadership structure	Key aspects	Selective examples of Mechanisms/ initiatives
Secretariat-led	• A dedicated autonomous entity/agency executes procurement on behalf of participating buyers. • Handles tendering, contracting, quality assurance, forecasting, pooled orders, payment and distribution logistics (PAHO: distribution logistics up to the port of entry; not responsible for in-country distribution).	PAHO Revolving Fund/ Strategic Fund, APPM, SIDS
Member-led	• Participating states (governments) themselves drive procurement decisions, often through committees, consensus-building or voting. • Decision-making remains with the member governments, promoting national sovereignty, autonomy, and political acceptability.	GCC, SADC, Nordic countries, ADSSR, Beneluxa, ADSSR, AVSSR
Donor-led	• Global or international alliances, donors, or multilateral agencies lead procurement, financing, and distribution. • Financing often external (donor contributions, subsidies, global funds). • Implementation often via global procurement agencies or UN partners.	Gavi, the Vaccine Alliance, COVAX, PEPFAR, Global Fund Pooled Procurement Mechanism

Member-led coordinated procurement works when participating countries collaborate directly, jointly designing governance arrangements, harmonising product needs, and conducting shared tendering, while still contracting and paying individually[14]. Success depends on buyers having sufficient technical, financial, and regulatory capacity, along with homogeneity, strong trust, alignment, and commitment to common rules[15]. This structure preserves national autonomy but is more vulnerable to heterogeneity and uneven participation. The Nordic model of coordinated procurement, where a small group of willing countries jointly negotiate and procure while financing purchases individually on a pay-as-you-go basis, with one country acting as lead and others participating through structured committees, offers a pragmatic and flexible approach for regional collaboration. The Gulf Cooperation Council (GCC) Joint Procurement Programme, Beneluxa and Nordic countries' joint procurement are member-led

governance models. For GCC purchasing programme, six Gulf countries are jointly tendering, but making payments to the supplier individually[18]. For Beneluxa, Belgium, Netherlands, Luxembourg, Austria and Ireland exchange data, share registries, coordinate assessment methodologies, conduct horizon scanning activities, and negotiate directly with pharmaceutical manufacturers to obtain lower prices on orphan products by aggregating demand[19].

Donor-led coordinated procurement mechanisms combine commodity financing with centralised coordinated procurement, enabling participating LMICs to access quality assured products at lower cost, ensuring equitable access[20]. Grant recipients rely on the donor or alliance for procurement planning, sourcing, contracting, quality assurance, and often financing[21] Examples include Gavi's donor-funded vaccine procurement model; the Global Fund Pooled Procurement Mechanism (PPM); PEPFAR's centrally managed supply chains; and COVAX, co-led by Gavi, WHO and CEPI, a time-bound global coordinated procurement mechanism established for COVID-19[22]. There are critical concerns about the lack of sustained funding in donor-led mechanisms. PEPFAR, for instance, has recently faced significant threats to its sustainability due to funding uncertainties and donor shifting priorities. Dependence on external support may diminish in the future, underscoring the need for accelerated domestic funding and self-reliance efforts by host countries. COVAX also illustrates how donor commitment can be fragile. Many high-income countries treated COVAX as a secondary option while pursuing bilateral deals with suppliers, highlighting weak long-term financial commitment and limited collective accountability[23].

Cross-cutting challenges: Political will, solidarity, and political stability

Regional coordinated procurement faces challenges related to political commitment[1][24], solidarity[2][25], institutional capacity[3][26], and regional stability[4][27]. When effectively addressed, these factors function as enabling conditions that underpin both feasibility and performance.

First, political will and solidarity are important. PAHO identified two key enablers of its success: 1. strong solidarity among Member States, which was essential for both establishing and sustaining the funds; and 2. technical cooperation, including support to help countries transition to the use of generics and biosimilars through policy and clinical advisory services, HTA-related technical cooperation, and harmonised treatment protocols, quality assurance systems, and strengthened supply chains. These enabling conditions underpin both routine coordinated

[1] Political commitment embodies a leader's pledges to policies and principles.
[2] Union or fellowship arising from common responsibilities and interests, as between members of a group or between classes, peoples, etc.
[3] The ability of an organization or government to effectively design, implement, and manage policies and programs.
[4] A state of equilibrium and security within a geographical area, where nations are able to coexist peacefully without significant conflicts or threats.

procurement and emergency response mechanisms. Specifically, during health emergencies such as COVID-19, these conditions become particularly, as regional solidarity needs to be strengthened to maintain fair and equitable access to health products. This demonstrated an urgent need to scale up regional support mechanisms capable of responding to emerging challenges[17]. Characteristics on members is also important in fostering a common purpose – participation of members who have regional, cultural similarities or systems for regulation and procurement may be able to organise themselves more easily. In addition, it is beneficial for countries that are smaller in size, who may otherwise not be able to attract suppliers to their markets, to be able to align themselves with at least one large buyer (such as in the case of the Nordic Pharmaceutical Forum). The degree of homogeneity or regional solidarity is particularly pertinent as most of the mechanisms are voluntary in nature.

Second, governance and legal capacity and design determine whether political commitments translate into action. It was noted during the consultation that the Nordic countries demonstrated that legislative backing and strong support from health ministries to ensure sustained commitment and prevent countries from seeking bilateral deals outside the mechanism are essential. The importance of involving early decision-makers and grouping countries with similar health system structures to simplify agreements and enhance governance, was stressed. In the EU, the Joint Procurement Agreement provides a legal basis for procuring across countries [28]. Complementary insights from the EU demonstrate that the degree of centralisation or decentralisation of national procurement systems has a significant impact on both access and efficiency of the coordinated procurement process.

The African Pooled Procurement Mechanism (APPM) remains in a nascent stage. Its establishment was recently approved by the African Union (AU) Assembly in 2024, supported by strong political commitment from Heads of State. Foundational support from partners such as UNICEF and UNFPA, along with coordination by Africa CDC, has helped the mechanism take shape. To strengthen its design and implementation, Africa CDC established a technical working group with PAHO to learn from the (PAHO) experience. The consultation acknowledged that building political commitment is a gradual process; thus, Africa CDC focuses on ongoing engagement with health ministers and leveraging champions such as the President of Kenya, who advocates for local manufacturing and regional self-reliance.

Finally, geopolitical stability shapes cooperation. Efforts of the WHO Eastern Mediterranean Region Office (EMRO) in 2010 collapsed due to the inability to agree on vaccine lists, ongoing conflict and political unrest in the region[18]. This experience underscores the importance of understanding regional power dynamics and political contexts to improve existing mechanisms and inform future efforts.

Across these experiences, key success factors included the presence of clear governance arrangements, sustained political will and solidarity among participating countries, and the institutional capacity to translate political commitments into action. Strong political endorsement, legislative backing, and alignment of national procurement organisations are critical to ensure effective uptake and implementation of jointly procured products. Regional homogeneity, trust among members, and geopolitical stability further enable sustained cooperation.

Stakeholder ecosystem

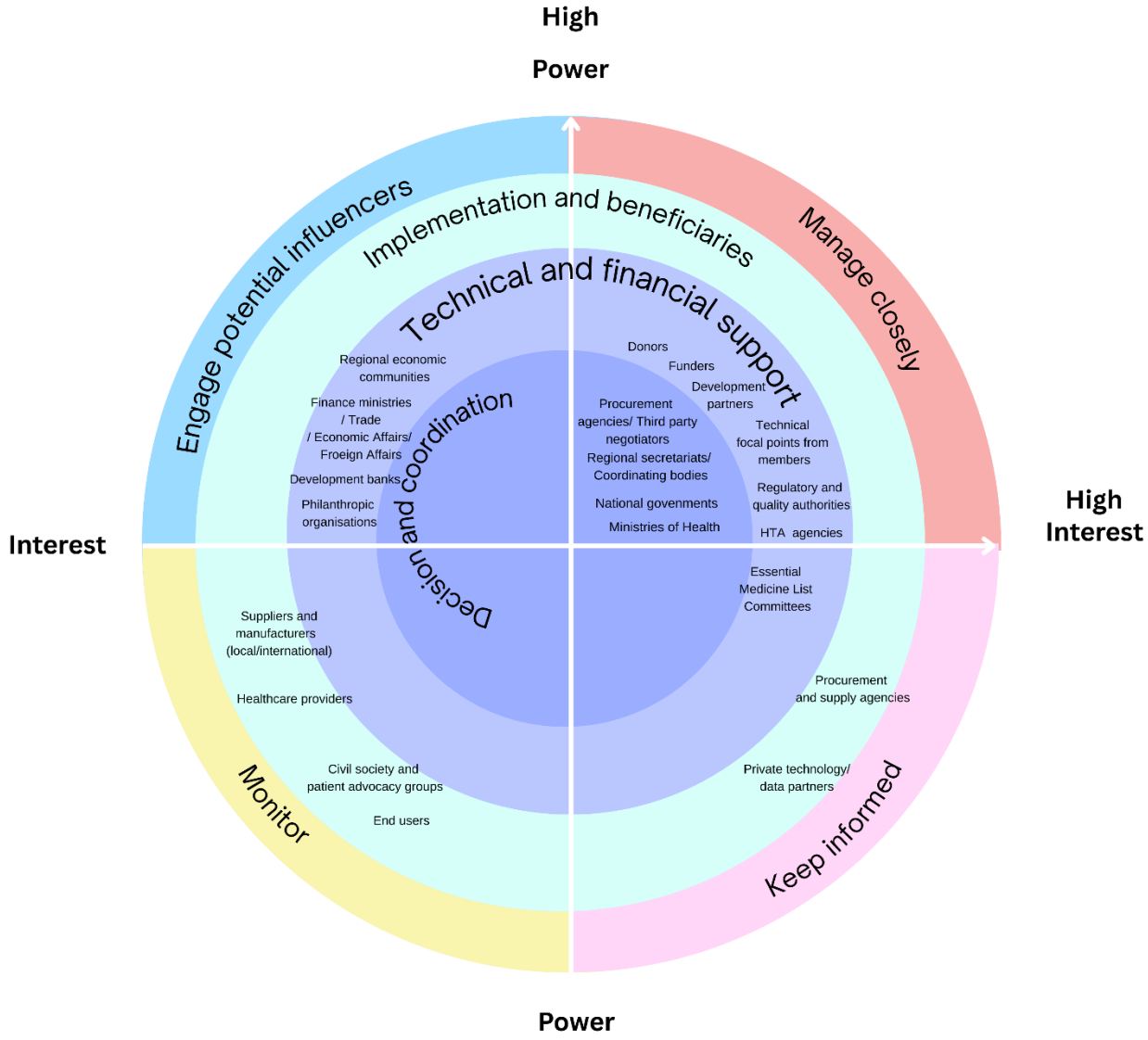


Figure 1. Stakeholder ecosystem map illustrating the multi-layered governance structure of regional coordinated procurement mechanisms, overlaid onto a Power–Interest matrix to show how different actors vary in influence and engagement needs.

Figure 1 shows the stakeholder ecosystem for coordinated procurement using a concentric model and a power-interest matrix.

Axes: power and interest: The vertical axis represents stakeholder power, with the top means higher power. The horizontal axis represents stakeholder interest, with the right means higher interest. The four quadrants indicate how to engage each stakeholder group based on their power and interest: manage closely (high power, high interest), engage potential influencer (high power, low interest), keep informed (low power, high interest), and monitor (low power, low interest).

Corecentric layers: stakeholder roles: The figure is further organised into three concentric layers, reflecting stakeholders' roles in coordinated procurement. The core layer involves decision-makers like ministers of health and third-party negotiators. The middle layer includes those providing technical and financial support, such as donors and regulatory authorities. The outer layer consists of implementers like suppliers, manufacturers, and healthcare providers.

Effective procurement requires alignment and coordination across all layers with appropriate strategies based on each actor's role. It should be noted that multiple stakeholders are involved in coordinated procurement. The list presented in Table 4 is therefore indicative and not exhaustive. Stakeholder roles differ depending on the type of coordinated procurement mechanism (i.e., Information sharing/informed buying; collective bargaining/group contracting; central purchasing and/or distribution). The table summarises common roles across mechanisms, but specific responsibilities may vary.

Table 4. Power-interest positioning and key contributions of various stakeholders in coordinated procurement.

Stakeholders	Power, Interest (Engagement approach)	Key contributions	Example from mechanisms
Core layer: Decision and coordination			
National governments & Ministries of Health	High, High (Manage closely)	Provide political mandate, approve participation, set national priorities, and endorse coordinated procurement arrangements.	Ministries of Health in PAHO Revolving Fund, Programme managers, Procurement divisions
Regional secretariats/ coordinating bodies	High, High (Manage closely)	Oversee governance, consolidate demand, coordinate among Member States, negotiate with suppliers. Draft procurement rules, MoUs, dispute resolution mechanisms, and trade regulations.	NVI, PAHO secretariat, GCC secretariat, Africa CDC, ASEAN secretariat, ACPHEED
Procurement agencies/Third-party negotiators	High, High (Manage closely)	Conduct tenders, manage supplier contracts, coordinate logistics and provide technical support.	WHO, UNICEF, CHAI, Global Fund PPM, UNFPA

Stakeholders	Power, Interest (Engagement approach)	Key contributions	Example from mechanisms
Middle layer: Technical and financial support			
Development partners and donors	High, High (Manage closely)	Provide financing, technical assistance, and catalytic funding for coordinated procurement.	Gavi, Global Fund, PEPFAR, World Bank
Development banks and philanthropic organisations	High, Low (Engage potential influencers)	Offer investment funds and innovation support to strengthen regional procurement and local manufacturing.	African Development Bank (AfDB), World Bank, Gates Foundation, Rockefeller Foundation, Afreximbank.
Regional organisations / economic communities	High, Low (Engage potential influencers)	Provide legal and policy frameworks for cooperation, regional health or trade integration, and harmonised standards.	ASEAN, African Union, WHO regional offices, Inter-American Development Bank (IDB), Caribbean Disaster Emergency Management Agency (CDEMA), Caribbean Public Health Agency (CARPHA), MERCOSUR, Organismo Andino de Salud-Convenio Hipólito Unanue (ORAS-CONHU), United Nations Economic Commission for Latin America and the Caribbean (ECLAC)
Regulatory and quality authorities	High, High (Manage closely)	Oversee product registration, inspection, and quality assurance; provide global guidance and technical support, including essential medicines lists, treatment guidelines, and quality assurance mechanisms, to support national regulatory authorities.	WHO including WHO PQ, EAC-MRH, ASEAN FDA Network, National Regulatory Authorities (NRAs) (PAHO SF&RF work very closely with the NRAs in the region and recognise eight of the NRAs as regional references of NRAs for their quality reliance protocol.)
Finance / Trade / Economic Ministries	High, Low (Engage potential influencers)	Align trade, customs, and financing regulations with pooled procurement mechanisms.	Ministries of Finance or Trade involved AVSSR and GCC joint tenders.
HTA agencies/ EML committees	Moderate to high, High (Manage closely/ Keep informed)	Conduct evidence assessment and price evaluation for product selection and reimbursement.	Beneluxa, HTAsialink

Stakeholders	Power, Interest (Engagement approach)	Key contributions	Example from mechanisms
Outer layer: Implementation and beneficiaries			
Procurement and supply agencies (National)	Low, High (Keep informed)	Implement national purchasing, manage warehousing, customs clearance, and distribution of procured goods; system integrators between ministries, clinicians and suppliers.	Public procurement organisations
Private Technology & data partners	Low, High (Keep informed)	Provide digital procurement, demand forecasting, and track-and-trace systems to enhance transparency and efficiency.	
Suppliers and manufacturers (local/international)	Low, Low (Monitor)	Produce and supply vaccines/medicines; engage in tenders and long-term agreements.	
Civil society and patient advocacy groups	Low, Low (Monitor)	Promote transparency, equity, and accountability; advocate for affordable access.	
Healthcare providers and end users	Low, Low (Monitor)	Deliver and administer procured products; provide feedback on implementation and accessibility.	National immunization/disease control programmes, social securities, provinces, states, municipalities and professional institutions

2.2 Financing

Financing refers to the availability of financial resources available or committed to operate the mechanism and/or to purchase the commodities. The level of financing required to operate the mechanism varies depending on the archetype of collaboration. For example, typically, mechanisms based on information sharing require limited additional financing. However, collective bargaining/group contracting and central purchasing require dedicated funding to manage these procurement endeavours.

Regarding financing for the mechanism, typically, initial capital is required, after which there are expenses for operational costs. In the case of the PAHO Revolving Fund, seed funding was

received from international partners such as the US Government, the Government of the Netherlands, PAHO, UNICEF, as well as contributions from countries in the region. In the case of the GCC, countries provided the initial funding source and contributed through membership fees.

In terms of financing of commodities purchased, these are typically paid for by members. This ensures that the risks of purchase are borne by the mechanism. In initiatives such as the GDF, donor subsidies have been the primary source of financing[29]. In some cases, external or strategic funding sources, such as the COVID-19 ASEAN Response Fund for mpox vaccines in ASEAN through AVSSR, were identified as one of the sources[30]. Having alternative funding sources from multilateral banks such as Afreximbank is also considered[31]. In the case of ECDS (now OECS/PPS), participating members opened bank accounts at the Eastern Caribbean Central Bank (ECCB) for making payments to suppliers, demonstrating commitment to the mechanism and also allowing for payment to suppliers; however, this approach was noted to be unique[32] .

Ensuring sustainable financing is crucial for longer term survival of such mechanisms. In the case of ARIVA, costs escalated over time, without sufficient replenishment, leading to its closure[29]. This highlights the importance of not only ensuring that operational costs are covered but that funds are set aside for strategic purposes. PAHO charges a service fee of 4.25%, with 1.75% allocated to administrative fees and 2.5% to capitalisation fee of the total value of supplies, as of 2021. This fee varies by institution – ECDS (subsequently OECS PPS) charged a 15% administration fee. The Global Fund mobilises funding in three-year cycles from donors. The African Pooled Procurement Mechanism (APPM), which is in the process of development, is, for example, establishing such a capitalisation fund[33].

2.3 Regulatory and quality systems

The need for robust national regulatory processes, aligned with internationally recognised Good Regulatory Practices (GRP), such as those promoted by the WHO, to ensure the quality, safety and efficacy of health products is fundamental to any functioning health system[34]. Streamlined and collaborative regulatory processes are a critical complement to coordinated procurement, as they ensure compliance, reduce the complexity and cost of navigating separate submissions in each country.

WHO Prequalification (PQ) helps ensure medical products are safe and effective, enabling regulatory authorities to adopt it for quicker registration[35]. Beyond the product itself, the WHO Model Quality Assurance System (MQAS) provides a standardised framework for procurement agencies to maintain consistent quality practices across the cycle[36]. These tools, alongside WHO Public Assessment and Inspection Reports, inform the purchasing decisions of UN and other global procurement agencies. Additionally, WHO Collaborative Procedure for Accelerated Registration is not a prequalification activity in itself; rather, it serves as a complementary

mechanism that helps maximise health impact by expediting the introduction of prequalified or other stringently assessed products into national markets[37].

PAHO leverages regulatory reliance and regional harmonisation by aligning NRAs with WHO-Listed Authority (WLA), coordinating joint reviews, and enabling mutual recognition to compress registration timelines, expand quality-assured product listings, and accelerate time-to-access for Member States.

East Africa's initiatives like the African Medicines Regulatory Harmonization (AMRH) initiative and the East African Community Medicines Regulatory Harmonization (EAC-MRH) faced local technical gaps with inadequate testing technologies and weak quality assurance, especially for childhood cancer medicines[38]. They aim to leverage WHO PQ to help overcome these issues and improve regulatory approval processes.

Efforts are being made to align registration processes for health technology across different jurisdictions to streamline approvals. In Europe, for example, countries such as Norway, Denmark, Poland, Estonia, and the Netherlands share comparable national systems, which can help reduce technical and regulatory friction when collaborating on coordinated procurement, making cross-country collaboration more practical and effective.

Other regional efforts including the Middle East and North Africa (MENA) region faces fragmented immunisation policies, diverse vaccine schedules, and varying national regulations which pose significant barriers to coordinated procurement[18]. Mutual recognition of product registration is rare, and countries maintain separate quality control systems. Regulatory and legal mismatches with UNICEF Supply Division (UNICEF SD) requirements (e.g., MoU-based procurement, hard currency and advance payments) further limit participation. AMRH and EAC-MRH aim to unify regulatory standards, and a locally driven harmonisation program is seen as more suitable for LMICs[38]. The African Vaccine Regulatory Forum (AVAREF) that encourages regional strategies and cooperation to improve regulatory standards, but overall, there are gaps in harmonised registration systems.

Alignment of quality assurance mechanisms across the product lifecycle —including pre-market approval, clinical trial regulation, and post-market surveillance—is essential for strengthening regulatory and quality systems for coordinated procurement. For example, PEPFAR uses the U.S. FDA’s tentative approval process (issuing notifications for drugs that meet approval requirements but cannot be marketed due to patents or exclusivities of reference listed drugs)[39] to ensure the quality of antiretroviral drugs (ARVs) prior to market entry. In addition, PEPFAR and is increasingly investing in post-market surveillance in LMICs, where regulatory oversight remains weak[40]. While LMICs, especially in sub-Saharan Africa, continue to face significant challenges in establishing effective post-market monitoring systems, upper middle-income countries often

have more robust regulatory systems and oversight capabilities. This contrast highlights the ongoing need for capacity-building initiatives aimed at improving quality monitoring and regulatory oversight, from pre-market assessment to post-market surveillance, in low-middle-income settings.

Ensuring that certain vaccines and medicines meet halal requirements can introduce additional regulatory considerations. Countries may need to balance their national immunisation responsibilities with participation in coordinated procurement mechanisms, particularly when verifying that products align with halal standards[20]. Other product-specific regulatory requirements have also been identified in the literature, including, for products such as childhood cancer medicines, increasingly complex licensing and labeling requirements-especially for medicines with both adult and pediatric indications-which can complicate regional harmonisation[38].

2.4 Operations and procurement process

In this section, the key themes have been organised around the steps of the procurement process[41], adapted for the purpose of this study, as shown in Figure 2. It may be noted that not all operational processes of the mechanisms reviewed have been summarised here - these can be found in literature[29, 32, 42, 43]; only selected issues that emerged during consultations have been highlighted.

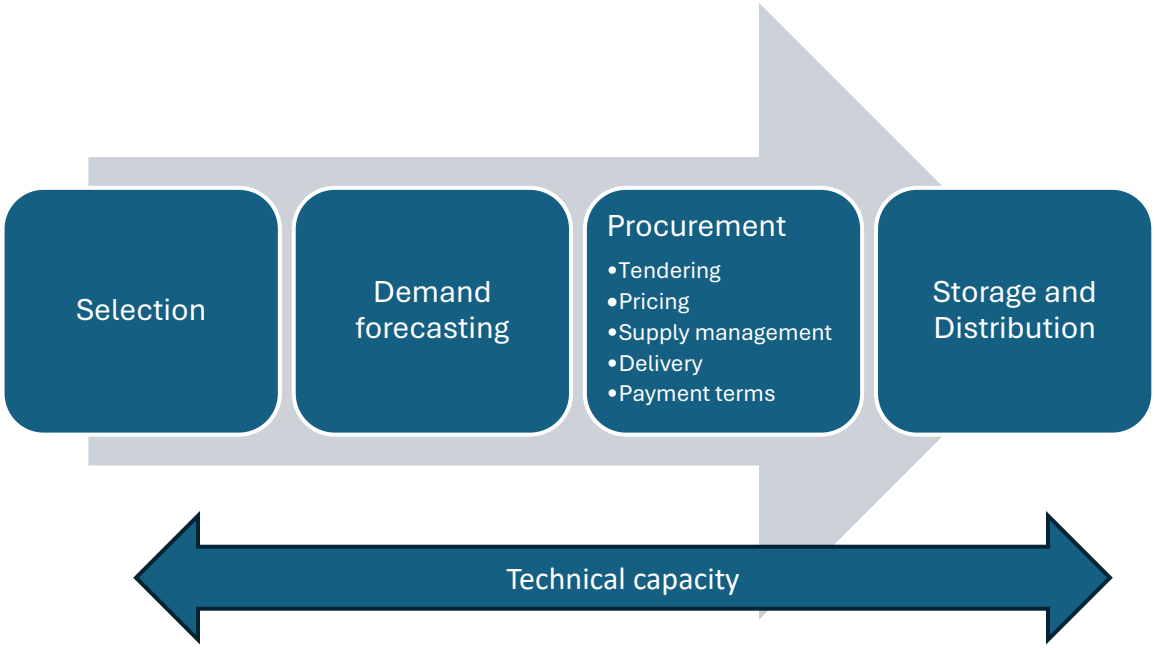


Figure 2. Components of the procurement process

Selection

Role of HTA

HTA has demonstrated its value in resource allocation and standardisation of processes which could be applied to coordinated procurement, through joint HTAs [29]. Understanding needs among members and prioritising health technologies is one of the first steps to be undertaken when establishing such a mechanism, which can draw on the mechanisms established by HTA agencies. Horizon scanning, one of the mechanisms used in HTA, has been used to identify novel health technologies in the pipeline to inform few of the countries in Europe[44]. In the case of HERA, a threat analysis is done to identify emerging trends and potential need for health technologies.

HTA, through the use of health economic evaluations, has been effectively used by national systems to negotiate prices and terms with suppliers. At the multi-country level, HTA has been principally documented in initiatives in Europe that are based on collective bargaining/group contracting. and sharing HTAs or conducting assessments together, such as the Beneluxa Initiative and the FAAP. Further, these have also facilitated collective bargaining and price negotiations[45]. In terms of antibiotics, there is currently limited literature on economic evaluations in LMICs and there are also challenges conducting assessments[46, 47]. In terms of attitudes towards collaborating on HTA across countries, a study in Europe showed that the public sector was more interested in taking a voluntary approach towards collaboration {Vella Bonanno, 2021 #119}. Limited resources, perceived benefit from collaboration in terms of power or outputs, were recognised as potential reasons for collaborating among members, and communication among members and networking over time were identified as facilitating factors for coordinated action between countries {Vella Bonanno, 2021 #119}.

The scope of health technologies to be prioritised varies, for example, in the EU, the scope of the Joint Procurement Agreement is only for medical countermeasures in the case of cross-border health threats and does not apply to routine purchases such as high-cost medicines for rare diseases[28]. It is vital to consider the patent status when planning for coordinated procurement, as there are implications in terms of suppliers, price, and regulations. It has been noted that most new antibiotics would be single source and under patent.

Demand forecasting

Demand forecasting is one of the fundamental capabilities required to conduct coordinated procurement, especially when there is a centralised approach. This can ensure predictable demand for suppliers. Tools such as QUANT-TB and FORxECAST have been developed for specific purposes[17]. However, there is variation in availability of these capacities across countries. In some cases, there is a guaranteed amount that will be purchased, placing the risk on the buyer – for example, in the GCC, countries must buy at least 60% of their vaccine needs through the

programme[42]. In the ECDS (now OECS/PPS), a review in 1994 showed that there was substantial variation in the forecasted versus actual purchased amount, ranging from 25%-150%[32]. Demand forecasting needs may vary depending on routine use (for which estimates must be shared on a regular basis) or for emergencies, where existing stockpiles may be drawn on (e.g. iCAPS).

For antibiotics, it is particularly challenging to forecast demand for antitbiotics due to inadequate surveilanace of antibiotic use, limited mechanisms to track stocks and understanding epidemiology and rates of AMR[48, 49]. SECURE has also developed a tool to facilitate forecasting for antibiotics.

For both, selection and demand forecasting, the importance of data sharing protocols

Procurement

Tendering

Mechanisms where there is collective bargaining/group purchasing or centralised purchasing will establish a contract review process. In the case of the PAHO Revolving Fund for Vaccines, for example, a Contract Review Committee comprising technical, financial and procurement staff is set up. Tendering processes may vary across different types of mechanisms – in the case of PAHO, international tenders are placed[42]. However, it has been noted that there could be benefits to restricted tendering or pre-screening of suppliers to ensure quality of the participating manufacturers and to account for their performance; these processes can improve quality and reduce differences in the product available in different countries [32]. In the case of Europe, it was noted that even though tendering is open to suppliers across countries, the response is national (i.e., through a local subsidiary) due to other regulatory processes, which tends to lead to fragmentation of markets.

Pricing

One of the chief benefits of financing through coordinated procurement is to aggregate demand and negotiate a competitive price. When open tendering is used, as in PAHO Strategic Fund, the committee selects the lowest price[42]. In the case of the PAHO Strategic Fund, a single price, CIF (Incoterms), which includes shipping and insurance, is negotiated for all members. However, when there are countries with different income levels or country size, having one price for all can be a challenge given the level of economic attractiveness. Having tiered or differential pricing across countries was found to be more expensive compared to generic purchases, though this can vary across product categories[50].

Additionally, in mechanisms based on information sharing, sharing price data can be a challenge *[4]***.** Due to confidentiality clauses, rebates and discounts negotiated with pharmaceutical

companies are rarely disclosed, whether in Europe or globally[4]. This limits the ability of countries to make informed comparisons or negotiate lower prices. Pricing sharing platforms such as the Price Information Exchange for Medicines (PIEMEDS) have been developed by the WHO, though few countries participate in this process for various reasons [51]. The Global Fund, which procures centrally, has made its prices also available[52]. Evidence suggests that when true prices are publicly disclosed, it strengthens bargaining power, reduces medicine prices, and improves affordability for health systems and patients[53].

Payment terms

Prompt payment to suppliers is one of the key benefits for suppliers participating in such mechanisms[29]. In the case of the PAHO Strategic Fund, members pay in advance or must pay any deficit within 60 days. Amounts due are charged in US Dollars with the option to pay in local currency, with coordination between country offices and headquarters. In the case of GCC, payment is typically made after delivery. However, it has been noted that in some cases, up-front payment can be a challenge for countries and they prefer payment after delivery[38].

Supply management

The contracting process with suppliers is critical. Identifying multiple suppliers for products, as in the case of PAHO Strategic Fund, was observed to ensure competition and longer-term viability of the market[42]. Further, having multiple products from a supplier can ensure that the supplier continues to value the mechanism as a viable market[32]. Evaluation criteria for selecting bids typically focus on price but may also revolve around other considerations such as potential for domestic production, environmental aspects of procurement (e.g., the Most Economically Advantageous Tender or MEAT criteria used in the Nordic countries)[54]. There is a distinction between manufacturers and distributors: there are advantages of engaging directly with the manufacturer, for example, in terms of price negotiation, though in the case of distributors, a wider range of products may be available[32]. Awarding multi-year or long-term agreements is critical to provide predictable demand. In Europe, framework contracts have also been established, allowing for flexibility, as has the Global Fund for 2-5 years [28, 55]. Enforcement of contract terms and having an adjudication process are other critical procurement functions that need to be carried out in such mechanisms. It is imperative that key elements such as participation of suppliers, allocation and availability of health technologies are contractually secured and are enforceable.

Storage and distribution

Delivery

Delivery of health technologies, when contracted centrally, is handled by procurement service agents, as observed in the case of the Global Fund[56]. Procurement agents are hired by the

Global Fund, who are paid a fee of 1.5-5% of the value of the supplies delivered. UN agencies may also serve as procurement agents, maintaining stockpiles of essential medicines and charging a 3%–8% handling fee in the case of UNICEF and a 5% administrative fee for UNFPA[57]. Typically, members must manage once delivery is made in the country.

Technical capacity and knowledge exchange

To conduct the activities outlined above, having a full-time secretariat that can coordinate processes all through the various stages is critical[29]. UN agencies such as PAHO, UNICEF or UNFPA seem to be well-placed to provide such services. However, there is a need for sustainable financing and technical expertise to ensure its continued use. In some cases, such functions were transferred to member countries, as in the case of SIDS. Technical support by multilateral agencies across the process and knowledge sharing can be beneficial. Peer-to-peer learning has been identified a way to raise awareness.

2.5 Outcomes and equity

Coordinated procurement generates several important outcomes that contribute directly to equity in access to health technologies (Table 5).

Table 5. Outcomes and equity impact of coordinated procurement.

Dimension	Key outcomes	Equity implications	Challenges
Demand-side	• Sustainable pricing • Timely access to technologies • Effective third-party negotiation • More professionalised procurement	• Benefits small-market countries • Access to niche/small-volume products (e.g., NTDs) • Improved emergency access (e.g., stockpiling) • Stronger collective bargaining power	• Weak demand forecasting may reduce uptake or cause wastage
Supply-side	• Predictable, consolidated demand and typically, timely payments • Increased competition	• Encourages suppliers to serve smaller markets	• Competition and price pressure may deter suppliers

Dimension	Key outcomes	Equity implications	Challenges
	• Technology transfer could be facilitated (eg PIP Framework) • Fewer, larger, and simpler contracts • Incentives for capacity and innovation (potentially build into tender requirements)	• Potential to broaden supplier base	• Risk of low supplier participation (e.g., ADF)
Regional	• Stronger regional collaboration	• Greater solidarity and reduced disparities	• Slow establishment and initially limited activity

From a demand-side perspective, coordinated procurement enables reduced prices for buyers, supports suppliers capable of maintaining sustainable production, and improves timely access to health technologies, including new and emerging ones. In terms of price reduction, a third-party negotiation approach seems to be significantly effective compared to central procurement and tiered pricing[50], while also professionalising procurement services and reducing opportunities for rent-seeking[29].

Pooling demand is especially beneficial for countries with small market size, ensuring equity among members. This could be the case for high cost-medicines such as cancer medicines[38]. There is also an opportunity for new, low volume antibiotics to be considered for coordinated procurement[58]. Pooled demand further helps address persistent inequities related to small-volume or niche health technologies, such as those for neglected tropical diseases (NTDs)[59], where individual markets are too small to attract supplier interest. Coordinated mechanisms also improve outcomes during public health emergencies, allowing countries to secure timely access to medical countermeasures or establish stockpiles such as influenza vaccines. Strengthening coordinated procurement regionally can enhance collective bargaining power, thus reducing costs, and achieving greater predictability of the health technology supply[38].

From a supply-side perspective, coordinated procurement can help increase competition among suppliers to participate in mechanisms with larger volumes. To ensure a healthy supply side market, other criteria for sustainability of procurement could also be considered, such as the MEAT criteria[54]. It can also facilitate technology transfer through closer collaboration between countries and suppliers, through mechanisms such as the Pandemic Influenza Preparedness Framework. Coordinated procurement also offers clear benefits for suppliers: consolidated orders reduce transaction and operational complexity, create fewer but larger contracts, and provide greater market security and demand stability[60]. These conditions can incentivise vendors to

invest in production capacity, product development, and innovation and could potentially be built into tender requirements.

Beyond both demand and supply outcomes, coordinated procurement can strengthen regional collaboration and solidarity, as seen in the PAHO Revolving Fund for vaccines and the PAHO Strategic Fund[61], contributing to more equitable access over the long term. Through consultations, it was emphasised that there are benefits beyond having stronger negotiating power, to strengthen expertise in regulation and HTA. Potential drawbacks are that while these mechanisms show promise, they also take time to be established and, if not actively managed, coupled with external factors, could have limited activities or be discontinued, as in the case of the Asthma Drug Facility (ADF), which closed due to the limited number of suppliers participating in the process[12, 62]. In addition, limited capacity or ability to accurately forecast demand may lead to lower levels of purchases or also lead to wastage[12]. To make such an arrangement successful, it was noted during consultations that members need to be willing to compromise to achieve a joint position that enhances benefits for all. Moreover, suppliers may face challenges such as increased competition and pressure to reduce prices, which may affect long-term market participation[60].

2.6 Other considerations

Intellectual property (IP) and patent protections, which often lead to high medicine prices, restrict access to essential health products in many countries. To address these barriers, countries can use TRIPS flexibilities, such as compulsory licensing, to enable access to more affordable generic medicines[63]. Moreover, using TRIPS flexibilities has been mentioned in the context of reducing prices. Additional input received from stakeholders highlighted other considerations for coordinated procurement, including supporting the transition to the use of generics and biosimilars, improving price and information transparency, facilitating market registration, aligning national essential medicines lists (NEMLs) with treatment protocols, harmonising treatment protocols within and across countries, and promoting regulatory reliance and harmonisation. Further, while management of coordinated procurement mechanisms can be similar, having specialists for different health technologies can be beneficial for technical assessments, highlighting the preponderance of mechanisms focusing on single technology or disease area[63].

3. Lessons learned

The following section synthesises key lessons learned from the review and consultation of regional and global coordinated procurement mechanisms. These lessons highlight recurring enablers, challenges, lessons learned and case studies across different models, providing insights that can inform the development of future mechanisms in the ASEAN or other contexts. They are summarised in Table 6 to support a clearer understanding of cross-cutting themes and practical implications.

Table 6. Key enablers, barriers and lessons learned for coordinated procurement.

Themes	Enablers	Barriers	Lessons learned	Case studies
Governance and membership	• Strong political will • Clear governance structure • Homogeneity, regional solidarity and shared goals. • Similar health system structures and economic status • A permanent, autonomous secretariat with dedicated responsibility for the technical and operational management.	• Insufficient political will and symbolic commitment. • Representatives lack authority to make binding decisions during meeting among Member States. • Political instability or historical/geopolitical tensions between members. • Heterogeneity • Low trust, preference for bilateral deals • Fear of losing sovereignty or unequal benefits. • Lack of accountability.	• Strong political commitment and solidarity are essential. • While initial goodwill and promises are valuable, ensuring these translate into actual participation and procurement can be challenging. • Early involvement of health ministers or senior decision-makers is essential. • Those participating in the process should have the authority to commit to volumes to be purchased and budgets required. • Dedicated secretariats in secretariat-led models ensure coordination and neutrality.	• PAHO RF and SF were built on regional trust and commitment, while in ASEAN, AVSSR faced weak political will • PAHO serves as a secretariat that delivers benefits to Member States while maintaining trust and preserving national sovereignty. • The Nordic countries' joint procurement shows that early involvement of high-level decision-makers is essential, whereas ASEAN's AVSSR continues to struggle due to limited commitment and engagement from health ministries.

Themes	Enablers	Barriers	Lessons learned	Case studies
			• Donor-led models offer funding but may risk sustainability and national ownership. • Strong partnerships and advocacy with global procurement agencies such as UNICEF and existing mechanisms are instrumental in supporting setup and ongoing improvements. • Continuous engagement like organising side meetings at major global health events helps sustain commitment from stakeholders. • A needs-driven and pragmatic approach was recommended, starting with a small group of willing and ready countries and prioritising high-impact products where regional strengths exist, such as antivenoms and CAPD solutions. • A 'champions brief' at political level could help align diagnostics, drugs, and vaccines under a single strategic vision.	• COVAX demonstrated challenges due to insufficient long-term financing and weak collective accountability. • A joint APPM-PAHO technical working group was formed to share lessons from PAHO's regional procurement experience. • The Nordic model started with a group of willing countries.
Financing and pricing	• Financing and market incentives	• Lack of funding availability • Irregular financing & low purchasing power (limited	• Need for initial capital and member payments for services and products.	• APPM's is in the process of establishing a capital fund to ensure

Themes	Enablers	Barriers	Lessons learned	Case studies
	• Sustainable financing models • Flexible payment terms, local currency options. • Donor or catalytic funds during emergencies	effective risk-sharing policy; hard-currency needs) • Limited supplier incentives/participation (few vendors; confidentiality; side deals) • Upfront payment, hard currency (i.e., stable, internationally accepted currencies), and pre-delivery payment requirements. • Over reliance on donors	Strategic reserves for emergencies are beneficial. • Single price approach reduces unit costs for large countries and allow small countries to have access to health technologies. • Payment from members in advance, with flexibilities when needed, can ensure prompt payments to suppliers and ensure sustainability of the funds • Financing is persistent challenge and can be a decisive factor in the success of the mechanism. Proactive fund management is therefore critical.	sustainability, similar to the PAHO Revolving Fund which has maintained long-term financial stability in budgeting and planning through pooled country contributions and a revolving credit line.
Regulatory and quality systems	• Harmonised policy and legal framework • National laws supporting coordinated procurement. • Existing channels that promote reliance and/or information sharing between	• Regulatory fragmentation e.g. no/inadequate National Administrative Procurement guidelines and regulations, non-harmonised regulations. • National procurement law conflict with pooled/coordinated mechanisms. • IP/patent barriers, halal and cultural certification requirements.	• Regulatory harmonisation accelerates coordinated procurement. However, national systems and rules for registration, liability, reimbursement and tenders can often not be bypassed. • Technical assistance is critical to support countries to meet international standards e.g., use of WHO PQ	• ASEAN, EAC-MRH, MENA and AMRH still rely on fragmented regional mutual recognition and national approvals. • e.g., WHO, PAHO, FDA support technical and technology transfer. • UNICEF SD requirements can conflict with national procurement laws. • Halal certification, IP/patent restrictions

Themes	Enablers	Barriers	Lessons learned	Case studies
	regulatory authorities.		• Legal/regulatory misalignment can exclude countries. • Collaborate with regulators to establish reliance and expedited pathways for faster, harmonised market approvals.	and TRIPS added challenges in procurement and manufacturing.
Operations and procurement process	• Shared databases on prices, suppliers, HTA reports (e.g. Beneluxa). • Horizon scanning and joint assessments	• Data/forecasting deficits → small, unpredictable markets • Price confidentiality prevents comparison and negotiation. • Limited sharing of safety, efficacy, or supplier performance data. • Lack of formal information-sharing platforms. • Operational/logistics heterogeneity & stockout-prone supply chains • Limited human resources and capacity during the procurement process can be a challenge and could impede demand forecasting and supply chain management. • Fragmented national procurement systems may impede alignment with regional mechanisms	• Identifying the technology to be jointly procurement. • Having accurate demand forecasting is critical; a commitment to buy minimum proportion of total value of product needs in a category. • Having multiple suppliers, with long term contracts can ensure market viability, with framework contracts. • Framework contracts allow flexibility for purchase and ensure availability of multiple sources of health technology, with reliance on single suppliers. • Technical support for demand forecasting, procurement and supply chain management to members is beneficial. • Understanding the motivations and	• Framework contracts were used in the EU during the COVID-19 pandemic and have also been adopted by the APPM.

Themes	Enablers	Barriers	Lessons learned	Case studies
			willingness of private companies to participate and continue to do so in such initiatives is important. • Securing contractual obligations with suppliers and ensuring enforceability is critical.	
Outcomes & equity	• Strengthens equity for small countries to gain access as larger ones. • Builds regional self-reliance and resilience. • Third-party negotiation mechanisms achieve more effective price reductions and professionalise procurement processes. • Predictable, consolidated demand encourages supplier participation, investment, and innovation. • Regional solidarity and collaboration improve long-term resilience and equitable access. • Use in emergencies enables timely access to medical countermeasures and supports stockpiling.	• HICs bypass mechanisms (e.g., COVAX). • Inequitable distribution or delivery delays. • Limited transparency and price disclosure hinder accountability and equitable distribution • Limited demand forecasting capacity reduces purchasing efficiency or leads to wastage. • Low supplier participation, especially for small-volume or niche technologies (e.g., NTDs), undermines market viability. • Mechanisms take time to establish and may initially have low activity. • Supplier risks including increased competition and pressure to lower prices may discourage participation.	• Equity requires both financial and political solidarity to ensure smaller or lower-income members are not left behind. • Building local manufacturing capacity and using pooled demand can sustain equitable supply and reduce dependency. • Pooling strengthens equity, especially for small markets and niche products that cannot independently attract suppliers.	• PAHO RF/SF and APPM enable smaller countries to access the same low prices as larger ones, helping reduce inequities. • Regional cooperation frameworks (e.g., PAHO) demonstrate that trust-building and shared norms are as crucial as financing or contracts. • APPM prioritises African manufacturers, using demand consolidation to attract investment and stimulate production of health technologies not yet available within the continent • ADF illustrates risks when supplier participation is low or demand is insufficient; ultimately discontinued.

PART II: Implications for ASEAN

1. Background of ASEAN

The ASEAN region comprises 11 countries in Southeast Asia, each exhibiting diverse economic, social and health-system characteristics. ASEAN was established in 1967 to promote regional peace, stability and shared prosperity and its decision-making framework is based on consultation and consensus, with most decisions being non-binding in nature[64]. In the sphere of health, ASEAN members are spread across two WHO regional offices - WHO Southeast Asia Regional Office (SEARO) for Myanmar, Thailand and Timor Leste, and WHO Western Pacific Regional Office (WPRO) for the rest of the ASEAN Member States.

The ASEAN region's wide variation in population size, income levels, political systems, and religious affiliations has significant implications for any coordinated procurement initiative. Population ranges from very small states to populous nations (Table 7). In terms of income classifications, as defined by the World Bank, countries span from lower-middle income to high-income economies, reflecting very different capacities for procurement and health-system financing. Political systems vary across ASEAN—from constitutional monarchies and parliamentary democracies to socialist republics and military—influenced states-affecting governance, accountability, and regulatory oversight for procurement. Religious diversity adds further complexity: in countries where Islam is the major religion, halal certification requirements may apply to pharmaceuticals or medical products, while other states have predominantly Buddhist, Christian or other religious majorities, which may shape ethical, regulatory, and cultural expectations.

Table 7. Key characteristics of ASEAN member states

Country	Population (2024)	Income Level	Political System	Major Religion	Mandate to do HTA for reimbursement of medicines
Brunei Darussalam	~0.46 million	High	Absolute monarchy	Islam	Yes*
Cambodia	~17.64 million	Lower-middle	Constitutional monarchy; Parliamentary	Buddhism	Yes*
Indonesia	~283.49 million	Upper-middle	Presidential republic	Islam	Yes
Lao People's Democratic Republic	~7 million	Lower-middle	One-party socialist republic	Buddhism	Yes*
Malaysia	~35.56 million	Upper-middle	Constitutional monarchy; Parliamentary	Islam	Yes
Myanmar	~54.5 million	Lower-middle	Military regime	Buddhism	No
Philippines	~115.84 million	Lower-middle	Presidential republic	Christianity	Yes
Singapore	~6.04 million	High	Parliamentary republic	Multireligious (Buddhism, Christianity, Islam, Taoism)	Yes
Thailand	~71.67 million	Upper-middle	Constitutional monarchy; Parliamentary	Buddhism	Yes
Timor-Leste	~1.4 million	Lower-middle	Unitary semi-presidential representative democratic republic	Christianity	No
Vietnam	~100.99 million	Lower-middle	Socialist republic	Buddhism	Yes

Population size (2024) is based on the United Nations Population Division data.
Country income level is based on 2024 World Bank data.
*in the process of establishing HTA

2. ASEAN Governance and Health Sector Structure

The governance of ASEAN functions through a hierarchical structure led by the ASEAN Summit for Heads of State, supported by the ASEAN Coordinating Council and three distinct Community

Councils: the Political-Security (APSC), Economic (AEC), and Socio-Cultural (ASCC) communities. Central to this framework is the ASEAN Secretariat based in Jakarta, Indonesia, which facilitates operations under the fundamental tenet that decision-making be based on consultation and consensus.

Within this broader context, the ASEAN Health Sector Governance is situated under the ASCC and is organised into three strategic tiers. The policy-making apex is the AHMM, which convenes every two years to determine health policies and endorse decisions, with provisions for special meetings to address urgent matters. The ASEAN Senior Officials' Meeting on Health Development (SOMHD) directly supports the Ministers by providing strategic management and annual guidance for the implementation of the ASEAN Post-2015 Health Development Agenda (APHDA). Finally, the operationalisation of the APHDA is executed through four specific ASEAN Health Clusters managing work programmes from 2021 to 2025, as shown below (**Error! Reference source not found.**)

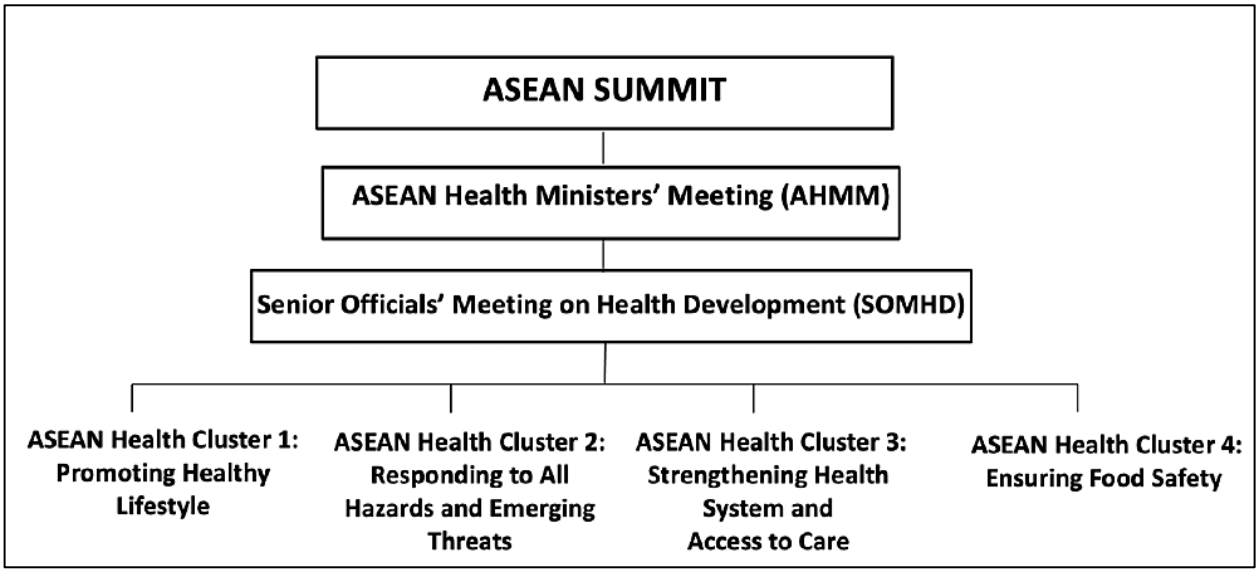


Figure 3. ASEAN governance for the health sector

The Health Clusters have their own Chairs and Vice-Chairs. The Chairs of these Health Clusters are designated by SOMHD, and these positions follow a rotation. Combatting antimicrobial resistance (AMR) is a health priority under Cluster 2, which is operationalised through the ASEAN Strategic Framework to Combat Antimicrobial Resistance through One Health Approach (2019-2030).

3. Current mechanisms for coordinated action on health in ASEAN

Over the past decade, ASEAN has strengthened regional cooperation to address shared health challenges and ensure equitable access to essential medicines and supplies. Gaps in production

capacity, fragmented procurement systems, and lessons from the COVID-19 pandemic have highlighted the need for coordinated action to build preparedness, self-reliance, and supply chain resilience. In response, ASEAN has established several regional mechanisms focused on coordinated procurement, stockpiling, trade facilitation, and regulatory harmonisation.

In ASEAN, several mechanisms support regional collaboration efforts across essential domains. For medicines, vaccines, and antidotes, key mechanisms include the ASEAN Drug Security and Self-Reliance (ADSSR), the ASEAN Vaccine Security and Self-Reliance (AVSSR), and the Initiative for Coordinated Antidotes procurements in Southeast Asia Region (iCAPS). In the regulatory sphere, collaboration is facilitated through the ASEAN Pharmaceutical Regulatory Framework (APRF), the Pharmaceutical Product Working Group (PPWG) and relevant ASEAN trade agreements. For public health emergencies, regional coordination is enabled by the Regional Reserve of Medical Supplies (RRMS), the ASEAN Strategic Framework on Public Health Emergencies, ACPHEED, and the COVID-19 ASEAN Response Fund. The relevant mechanisms are summarised in Table 8 below, outlining their purposes, key features, and implications.

Table 8.Coordinated Procurement mechanisms in ASEAN

Initiative/ Mechanism	Purpose/Focus	Key Features	Implications
ASEAN Drug Security and Self-Reliance (ADSSR)	Strengthen regional drug security and self-reliance	Joint procurement, local manufacturing, regulatory alignment	Addresses fragmented procurement; supports affordable and sustainable medicine production
ASEAN Vaccine Security and Self-Reliance (AVSSR)	Ensure sustainable regional vaccine access	Regional production capacity, harmonised regulation, coordinated procurement	Strengthens vaccine resilience; reduces reliance on external suppliers
Initiative for Coordinated Antidotes Procurement in Southeast Asia Region (iCAPS)	Improve access to essential antidotes	Coordinated procurement for low-demand items; emergency stockpiles; shared quality assurance	Demonstrates feasibility of regional Coordinated procurement; improves emergency access
ASEAN Pharmaceutical Regulatory Framework (APRF)	Harmonise pharmaceutical regulatory	Common technical requirements, regulatory convergence	Enhances the quality and safety of medicines, reduces regulatory barriers,

Initiative/ Mechanism	Purpose/Focus	Key Features	Implications
	standards across ASEAN countries.	pathways, and cooperation among national regulatory authorities.	and supports regional supply chain efficiency.
ASEAN Pharmaceutical Product Working Group (PPWG)	Regulatory harmonisation for pharmaceuticals	ACTR & ACTD standards; mutual recognition; expanded to biologicals	Reduces regulatory duplication; enables faster approvals; supports regional manufacturing & procurement
ASEAN Trade in Goods Agreement (ATIGA)	Facilitate free flow of goods, including pharmaceuticals	Reduced tariffs; simplified customs; rules of origin	Enhances distribution efficiency; foundational for coordinated procurement
ASEAN Regional Reserve of Medical Supplies (RRMS)	Shared emergency medical stockpile	Coordinated procurement; shared storage; activation protocols	Improves emergency response; avoids individual stockpile inefficiencies
ASEAN Strategic Framework on Public Health Emergencies	Integrated regional emergency preparedness	One Health approach; joint response; links to RRMS & ADSSR	Strengthens cross-sector coordination and crisis preparedness
ASEAN Centre for Public Health Emergencies & Emerging Diseases (ACPHEED)	Regional coordination hub for emergency response	Works through ASEAN Strategic Framework on Public Health Emergencies: collaborates with UN & partners	Enhances coordination and supports Member States' frontline response
COVID-19 ASEAN Response Fund	Regional financing for pandemic response	Coordinated procurement, capacity building, research support; transparent financial governance	Strengthens region-wide prevention, detection, and control during health crises

ACTD= ASEAN Common Technical Dossier

ACTR= ASEAN Common Technical Requirements

Further descriptive summaries for each of the mechanisms are presented in Appendix 4-6. Follo

initiatives operate in practice. iCAPS and PPWG, presented in Boxes 1 and 2, respectively, provide examples of regional efforts for coordinated mechanism and pharmaceutical regulatory framework.

iCAPS serves as a case example of a collaborative procurement model applied to address observed shortages and supply variability of antidotes. Its approach, which involves aggregating demand and coordinating procurement processes across participating countries.

Box 1. Initiative for Coordinated Antidotes Procurement in South-East Asia Region (from [65])

The operational design of iCAPS consists of two procurement pathways that function in a complementary manner. The first is a planned joint annual procurement modality, under which participating countries estimate their annual antidote requirements and submit consolidated requests to Thailand's National Health Security Office (NHSO). NHSO then conducts pooled purchasing on behalf of the group through a collective contract, enabling more predictable demand planning and improved procurement efficiency for an initial set of priority antidotes. The second pathway provides an emergency response mechanism, allowing national focal points to request urgent antidote supplies for specific patients from the Ramathibodi Poison Center, which facilitates expedited coordination and delivery.

The initiative is supported by a broad partnership network that includes national procurement authorities, poison centres, emergency medicine specialists, regulatory bodies, Thailand's NHSO, the Ramathibodi Poison Center, and the WHO Regional office for South-East Asia. Leveraging Thailand's well-established national antidote programme, iCAPS adopts a phased approach-starting with a small portfolio of essential antidotes and aiming to expand coverage as regional capacity and participation grow. National and state procurement agencies also play a critical role in ensuring that products are appropriately registered within their respective countries, thereby facilitating legal procurement and distribution. Taken together, the mechanism represents a pragmatic model for strengthening access to critical medical products, enhancing regional preparedness for poisoning emergencies, and advancing coordinated procurement efforts within Southeast Asia region.

Box 2. ASEAN Pharmaceutical Regulatory Framework (APRF) and Pharmaceutical Working Group (PPWG)

The ASEAN Pharmaceutical Regulatory Policy provides the overarching principles guiding Member States in strengthening the pharmaceutical sector and ensuring the availability of safe, effective, and high-quality medicines. It establishes a shared direction for regulatory development and supports closer cooperation among health and regulatory authorities as ASEAN progresses toward deeper pharmaceutical integration.

Building on this policy foundation, the ASEAN Pharmaceutical Regulatory Framework (APRF) seeks to create an integrated and coherent regulatory system by linking existing initiatives within a legally binding structure. The APRF aims to close regulatory gaps and ensure consistent quality, safety, and efficacy standards across the pharmaceutical lifecycle. Its implementation will follow the adoption of the APRF Agreement and will be supported by an implementation plan developed through consultations involving the PPWG, AHC3, and other stakeholders. These discussions will define the governance, operational mechanisms, and legal instruments needed to operationalise the framework.

Within this architecture, the PPWG-operating under the ASEAN Consultative Committee for Standards and Quality (ACCSQ)-serves as the main technical body driving regulatory harmonisation. Its mandate is to reduce technical barriers to trade while ensuring the safety, efficacy, and quality of pharmaceuticals across ASEAN. The PPWG has led the development of key harmonisation tools, including the ACTD and the ACTR, which streamline product registration processes. Comprising representatives from national drug regulatory authorities, the PPWG plays a central role in implementing the APRF and promoting more consistent and coordinated pharmaceutical regulation across the region.

4. Pilot case study on antibiotic access within ASEAN

Regulation has been identified as one of the main factors influencing the uptake of coordinated procurement. Given the priorities of stakeholders during a consultation meeting held in July 2025 in Bangkok, Thailand, an antibiotic was identified as a case study for coordinated Antibiotics represent a compelling case for coordinated procurement among nations due to a unique convergence of economic, supply chain, and critical public health imperatives whilst addressing the global threat posed by antimicrobial resistance. Furthermore, antibiotics, particularly older, off-patent compounds, often suffer from market failures that result in unstable supply chains and frequent shortages. By stabilising and predicting demand through a unified mechanism, coordinated procurement can incentivise manufacturers to maintain production, thereby

securing the supply of these essential, life-saving medicines and mitigating the risk of national stock-outs.

In order to facilitate a coordinated procurement of antibiotics among ASEAN Member States. Table 9 below summarises and compares the regulations for importing antibiotics in ASEAN for sale and/or distribution, such as product registration, import permits/licences, importer requirements, and whether personal imports are allowed. Antibiotics, in this context, refer to therapeutic pharmaceutical products for human use only. To explore the feasibility of coordinated procurement of antibiotics among ASEAN Member States, the following should be considered: (i) whether a centrally procured antibiotic must be registered locally before import; (ii) whether an import license and local authorised importer/distributor are required, and (iii) whether there are special routes (e.g., emergency /patient-use exemptions) that allow importing an unregistered product temporarily).

Table 9. Regulations for importing antibiotics among ASEAN Member States.

Member State	Regulator/legal basis	WHO Maturity Level (GBT) and WLA status of the National Regulatory Authority*	Are antibiotics prescription-only?	Is product registration required before import?	Type of import permit/licence required	Importer/local rep requirements	Key additional import rules/ special routes	Fiscal year
Brunei Darussalam	Department of Pharmaceutical Services/ Medicines Control Authority, Ministry of Health	Unrated/ Developing Not WLA	Yes, antibiotics regulated as medicinal products (prescription status enforced)	Yes, registration is required for medicinal products intended for sale/ distribution (exemptions strictly defined)	Import licence required for medicinal products (unless specific exemptions e.g., personal use with permission)	Importer/ wholesaler must hold import licence/ wholesaler licence; supporting documents per guidance	Guidance exists for importation of unapproved medicines (application for permission) and for importer licencing; GDP/ GMP expectations apply	April to March
Cambodia	Food & Drug Department, Ministry of Health. Import permit required.	Unrated/ Developing Not WLA	Yes, antibiotics regulated as therapeutic drugs.	Yes, registration is generally required before distribution.	Import permit from Food & Drug Department required for pharmaceuticals.	Importer must apply for registration/ permit with MoH; customs enforcement references the MOH permit.	Administrative measures list drugs as permitted only with MoH permits; enforcement noted in national trade repository.	January to December
Indonesia	National Agency of Drug and Food Control (BPOM). Regulations require registration and importer credentials.	ML3 WLA (as of Dec 2025 in vaccines)	Yes, antibiotics are regulated as prescription medicines.	Yes, BPOM product registration is required for market access; imported pharmaceuticals	Importers must have Importer Identification, distribution license (PBF or equivalent); import certificate/ process per BPOM regs.	Importers often need local legal entity and distribution licence; API/ raw material imports have separate dossier rules.	Registration timelines and local representation requirements can be substantial; unregistered imports permitted via specific	January to December

Member State	Regulator/legal basis	WHO Maturity Level (GBT) and WLA status of the National Regulatory Authority*	Are antibiotics prescription-only?	Is product registration required before import?	Type of import permit/licence required	Importer/local rep requirements	Key additional import rules/ special routes	Fiscal year
				normally must be registered.			channels but limited.	
Lao PDR	Department of Food & Drug, Ministry of Health.	Unrated/ Developing Not WLA	Yes, antibiotics are regulated medicines.	Yes, products imported for distribution must be registered or notified to DFD/MOH.	Import certificate/ import permit required; inspection by health sector prior to customs release.	Importers must obtain MOH certificate/ authorisation and comply with GMP/ GDP principles.	Registration/ notification plus health inspection prior to import; local authorised business units required for wholesale.	October to September
Malaysia	National Pharmaceutical Regulatory Agency (NPRA)/ Drug Control Authority (MoH). Licensing guidelines for importers.	ML3/4 candidate Not WLA	Yes, antibiotics regulated as prescription medicines.	Yes, product registration with NPRA (or special approval for unregistered in emergency).	Importer's Import Licence/ Wholesaler's Licence required for distribution of registered products; specific import licences for unregistered/ emergency supply also exist.	Importers must hold the appropriate licences; GDP/ GMP requirements applied for distributors.	Guidelines for import/ manufacture of unregistered products (life-threatening exemptions) exist.	January to December
Myanmar	Food & Drug Administration (FDA), Ministry of Health.	Unrated/ Developing Not WLA	Yes, antibiotics regulated; registration/ approval	Yes, registration required and authorisation for import; importation	Drug Importation Approval Certificate (DIAC)/ import recommendation	Local representative/ authorised importer required; dossier and sample	Prior approval is often required for samples and imports; recent tightening of	April to March

Member State	Regulator/legal basis	WHO Maturity Level (GBT) and WLA status of the National Regulatory Authority*	Are antibiotics prescription-only?	Is product registration required before import?	Type of import permit/licence required	Importer/local rep requirements	Key additional import rules/ special routes	Fiscal year
			generally required.	normally follows registration.	issued by FDA required before import/ marketing.	submissions generally required for registration.	import licence enforcement noted.	
Philippines	Food and Drug Administration (FDA-DOH). Various Administrative Orders govern import permits and batch certification.	ML3/4 candidate Not WLA	Yes, antibiotics regulated; many rules specifically address antibiotic handling/ batch certification.	Yes, registration is normally required.	Import Permit is required (valid typically 3 months, single entry); importers must obtain FDA clearance for regulated products.	Importer should be a registered drug manufacturer/ trader or authorised agent; batch certification/ notification rules apply.	Limited quantities for personal use allowed under joint circulars; special import rules for life-saving/ unregistered drugs exist.	January to December
Singapore	Health Sciences Authority (HSA). Medicines classified as Prescription-Only Medicines (POM).	ML4 WLA (Medicines)	Yes, antibiotics are POM.	Yes, marketed therapeutic products must be registered; unregistered imports allowed only under tightly controlled special access routes.	Import declaration must include HSA licence/ approval; hospitals/ clinics may apply for approval to import unregistered products for patient use.	Importer must be licensed/ provide HSA product codes and licence info on import declarations.	Special Access/ import-for-patients route exists (approval needed). Personal carriage has specific rules.	April to March
Thailand	Thai Food and Drug Administration (TFDA / FDA-MoPH). Drugs Act requires licenses for	ML3 Not yet WLA (candidate)	Yes, modern antibiotics are regulated medicines (prescription	Yes, registration ordinarily required; importer must follow TFDA	Import license/ License per Invoice (LPI) must be obtained for each import; import	Importer or agent must register/ hold business license and obtain LPI for shipments;	Personal/ parcel import of drugs is restricted; special import procedures for clinical/	October to September

Member State	Regulator/legal basis	WHO Maturity Level (GBT) and WLA status of the National Regulatory Authority*	Are antibiotics prescription-only?	Is product registration required before import?	Type of import permit/licence required	Importer/local rep requirements	Key additional import rules/ special routes	Fiscal year
	manufacture/ sale/ import.		required for sale).	import procedures.	declaration to Customs plus contact Food & Drug checkpoint.	personal/ parcel imports of drugs generally restricted.	emergency use exist but require prior approval.	
Timor-Leste	National Directorate of Pharmacy & Medicines (DNFM) / Ministry of Health; Decree-Law No.12/2004 (Pharmaceutical Activities) and subsequent regulations (new decree-law approved Dec 2024 updating the import/ distribution regime).	Unrated/ Developing Not WLA	Yes, antibiotics are regulated as medicinal products and dispensed under prescription requirements.	Yes, products must be registered/ approved by DNFM for routine market access; the MoH accepts only EML-listed & registered medicines for regular supply (donations/ emergency exceptions described in national policy).	Import permit/ import authorisation required (importer must obtain licence from the Regulating Commission/ National Drug Administration; fees apply). DNFM handles registration + import authorisations.	Importer must be a licensed business (commercial registration) and licenced by the Regulating Commission/ National Drug Administration; must meet storage/ quality/ GDP conditions; documentation typically required: GMP evidence, Certificate of Pharmaceutical Product (COPP), Certificate of Analysis (CoA).	Recent regulatory reform (Dec 2024) formalised separating import/ storage/ distribution from retail -potential for clearer licensing but still requires either local registration or official import authorisation for unregistered products; Ministry may centrally manage or restrict certain imports (authorities/ Autonomous Service may hold import powers for some categories).	January to December

Member State	Regulator/legal basis	WHO Maturity Level (GBT) and WLA status of the National Regulatory Authority*	Are antibiotics prescription-only?	Is product registration required before import?	Type of import permit/licence required	Importer/local rep requirements	Key additional import rules/ special routes	Fiscal year
							Emergency/ personal-use exceptions exist but are limited and require MoH approval.	
Vietnam	Drug Administration of Vietnam (DAV) under MOH.	ML3 (vaccine-production) Not WLA	Yes, antibiotics are prescription medicines.	Yes, DAV requires product approval/ registration prior to commercial import; additionally, a separate import permit is required.	Import permit(s) required in addition to product approval; import permits may be product-specific or cover multiple items depending on filing.	Importer must have authorised local representative; dossiers normally require reference approvals (SRA/EMA/FDA) for expedited routes.	DAV enforces both product approval and separate import permit; expedited/ tech transfer routes exist but require documents.	January to December

*as benchmarked against WHO Global Benchmarking Tool (GBT) which evaluates national regulatory systems by assessing functions like registration, surveillance, and laboratory testing, helping countries identify strengths and weaknesses to develop improvement plans, with Maturity Levels (ML) indicating system maturity. The WHO GBT classifies NRAs from ML1 (lowest) to ML4 (highest), and WHO-Listed Authority (WLA)[66] status is granted only after further performance evaluation beyond basic maturity, typically to advanced regulators.

All 11 ASEAN Member States require product registration/approval and an import licence or import approval for pharmaceutical antibiotics intended for sale or distribution. Local licenced importers or official government agencies must execute these imports. The key operational barriers for a single central tender are registration timelines and local authorised importer requirements. Even if antibiotics are procured centrally, each country normally requires either (a) the product to be locally registered, or (b) a specific import permit for an unregistered product plus a licenced local importer/distributor. This creates administrative and time barriers for coordinated procurement. The workarounds often used are emergency/special access/patient-use import pathways (Singapore special access, Malaysia/Philippines/Thailand emergency or life-saving unregistered import approvals, etc.), but these are typically limited, case-by-case, and require local regulatory approvals in advance. Regional reliance mechanisms (e.g., ASEAN Mutual Recognition Arrangement on Good Manufacturing Practices, ASEAN Common Technical Dossier) can be leveraged to speed up registration in the medium term.

To plan for a coordinated procurement of antibiotics within ASEAN Member States, the regulatory checklist below summarises the key documents needed and the typical processing steps.

Table 10. Core required documents (common across Member States).

Category	Required Documents	Notes/Remarks
Product Information	- Certificate of Pharmaceutical Product (COPP)* issued by SRA country- Certificate of Analysis (CoA)- the Good Manufacturing Practices (GMP) certificate issued by the Pharmaceutical Inspection Cooperation Scheme (PIC/S) network- Manufacturing Licence	Must be legalised/apostilled in several AMS (e.g., Indonesia, Vietnam).
Regulatory Dossier	- Product Registration Dossier (CTD or ACTD format)- Labeling, package insert, stability data	Required for registration route; simplified dossier for emergency/unregistered imports.
Importer Credentials	- Import Licence or Wholesaler Licence- Business Registration Certificate- GDP/GMP compliance evidence	Importer must be a locally registered legal entity with storage facilities inspected by regulator.
Authority Letters	- Power of Attorney / Letter of Authorisation from manufacturer to local representative	Mandatory for registration filings in most AMS.
Quality & Logistics	- Batch release certificate- Cold-chain validation (if required)- Shipping documentation (invoice, packing list, airway bill, bill of lading)	For customs clearance and post-import inspection.
Other (Conditional)	- Free Sale Certificate (for non-SRA manufacturer)- Pharmacovigilance agreement	Needed for registration or for donation/emergency imports in some countries.

*CPP requirements vary across ASEAN, with some countries accepting PIC/S-issued GMP certificates as alternative regulatory evidence.

Table 11. Tender process for public sector procurement in ASEAN [16](from ADSSR report).

Country	Type of tender process: Local & National competitive tender	Type of tender process: International competitive tender	Type of tender process: Negotiation direct purchasing	Tender board/committee overseeing public sector procurement	Separation of key functions of procurement office and tender committee
Brunei Darussalam	√	X	X	√$^{\alpha}$	√
Cambodia	√	√	√	√	√
Indonesia	√	X	√	√$^{\beta}$	√
Lao PDR	N/A	N/A	N/A	N/A	N/A
Malaysia	√	X	√	√	√
Myanmar	N/A	N/A	N/A	N/A	N/A
Philippines	√	√*	√$^{\#}$	√	√
Singapore	√	√	√	√	√
Thailand	√	X	√	√	√
Vietnam	√	X	√	√	√

Note:
* only for selected essential medicines procured through UN agencies;
# for single-sourced and patented products;
α Main Tender Board, MOF/Mini Tender Board, MOH/Quotation Committee, MOH;
β Inspectorate General Audit Board of the Republic of Indonesia Financial and Development Supervisory Agency
(Source: Baseline Pharmaceutical Situational Analysis Survey)[51]. This table is reproduced from the Situational Analysis and Feasibility of Regional Collaboration to Improve ASEAN Drug Security and Self-Reliance (ADSSR) (2023). Timor-Leste is not included, as it had not yet been admitted as a member state of ASEAN at the time the report was produced.

Source: Situational Analysis and Feasibility of Regional Collaboration to Improve ASEAN Drug Security and Self-Reliance (ADSSR). ASEAN Secretariat; 2023[51].

Public sector pharmaceutical procurement across ASEAN exhibits substantial heterogeneity, though several regional patterns emerge. Most ASEAN Member States use local and national competitive tendering as a core procurement mechanism, reflecting a shared reliance on competitive bidding to ensure transparency and value for money. International competitive tendering is also widely practiced, except in Brunei, Indonesia, Malaysia, Thailand and Viet Nam, where its use is more selective.

Negotiation or direct purchasing is permitted in nearly all reporting countries, often for specialised, single-sourced, or patented products, while Cambodia, the Philippines apply all three procurement modalities. Oversight arrangements similarly differ: most AMS maintain a tender board or procurement committee, although Brunei and Indonesia report partial or differentiated structures. The separation of procurement and tender functions—a key safeguard for governance and accountability—is fully implemented most AMS.

Countries with no reported data (Lao PDR and Myanmar) indicate gaps in available information rather than absence of mechanisms.

Overall, it demonstrates shared reliance on competitive processes across AMS, and also reveals variation in governance structures and safeguards, underscoring the challenges of harmonising procurement systems within the region.

Box 3. Overview of Malaysia's public sector pharmaceutical procurement mechanism*

Insights informed by stakeholder consultations indicate that Malaysia's public sector pharmaceutical procurement system employs a tiered approach based on the value and nature of required products. Low-value purchases (below RM50,000) are acquired through direct procurement to enable timely access, while medium-value procurement (RM50,000-RM500,000) uses a quotation process to promote fair competition. High-value procurement (above RM500,000) is conducted through central contracts at the national level to ensure transparency, standardised pricing, and quality assurance. In addition, certain recurring supplies are managed through concession agreements with designated government-linked companies.

The coordinated procurement mechanism-coordinated by the Pharmaceutical Services Programme, Ministry of Health and overseen by the Ministry of Finance-standardises tender processes, harmonises contract terms, and leverages combined purchasing volumes to secure cost savings and strengthen supply security. While each ministry retains control of its own budget, all procurements are channeled through a joint tender platform at negotiated prices.

Key operational challenges include forecasting multi-year medicine requirements across diverse facilities, variations in procurement systems used by universities, inconsistent willingness of smaller institutions to participate, and ensuring that all procured products meet national registration requirements. Despite these challenges, the mechanism has generated substantial financial savings through economies of scale and improved procurement efficiency.

*From the Ministry of Health Malaysia, Pharmaceutical Services Programme. Impact of Pooled Procurement on Medicines Pricing in the Public Sector 2024 [Internet]. 2025 Jun 26 [cited 2025 Dec 03]. Available from: https://pharmacy.moh.gov.my/en/documents/impact-pooled-procurement-medicines-pricing-public-sector-2024.html

The steps required in importing antibiotics is shown in **Error! Reference source not found.**.

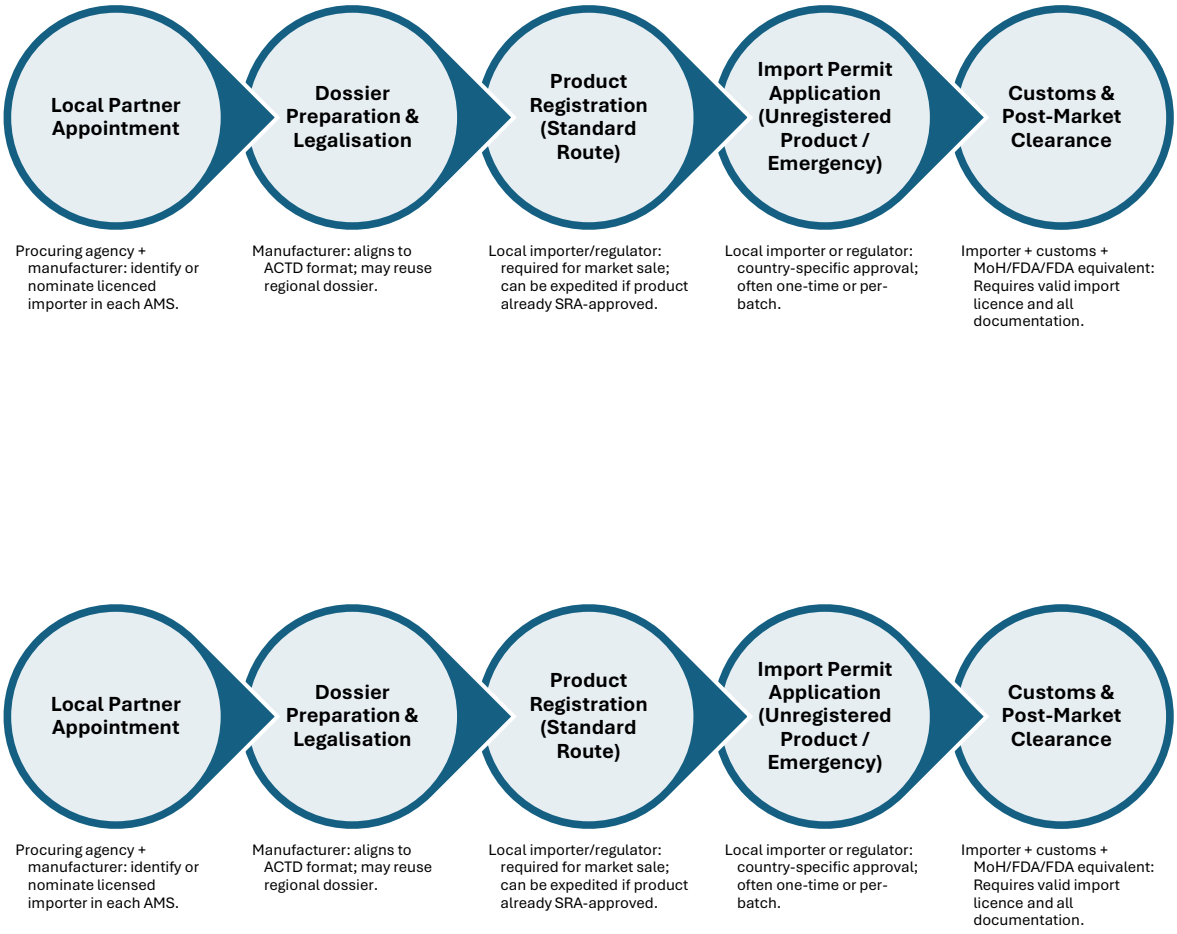


Figure 4. Typical regulatory steps for importing antibiotics

5. Key considerations in establishing coordinated procurement mechanisms for ASEAN

5.1 Governance

Within ASEAN, the AVSSR and the ADSSR are member-led but remain at a formative stage. For AVSSR, Thailand's NVI currently leads coordination efforts. According to the consultation, the initiative is still focused on collecting information and exploring feasible mechanisms, rather than

implementing procurement activities. The ADSSR was initiated under the AHC 3, with Malaysia mandated as the lead country and focal point. Governance arrangements emphasise regional collaboration underpinned by shared information tools[51]. Specifically, ASEAN Member States explicitly expect regional collaboration to yield more competitive prices and improved availability. The next steps identified for governance priorities include regulatory harmonisation, sharing of supplier information, price data sharing, and maintaining political commitment to sustain these efforts. More details of the mechanisms are in the next section. As part of the study, a survey, shared with HTA agencies and ASEAN representatives, revealed that information sharing/price transparency was proposed, and the expectation was that all countries would share and participate in the mechanism.

A key governance barrier identified during the consultation is the lack of political will. While Member States have expressed commitment in principle, this has not translated into concrete operational structures or coordinated procurement arrangements, as countries remain cautious about ceding authority over national procurement decisions. Differences in priorities, regulatory maturity, and concerns about unequal benefits make Member States hesitant to institutionalise shared mechanisms. As a result, political commitments remain largely rhetorical, without the operational structures or long-term mandates needed to enable sustained coordinated procurement. Progress is also stalled by the limited involvement of health ministries in decision-making. There is consideration of starting with “Willing Countries” (a smaller group of countries) to pilot a pooled approach, but previous efforts did not progress far because operational-level representatives lack the authority to commit nations.

5.2 Financing

The current financing landscape in ASEAN shows that while strategic funding is available for public health emergencies, several challenges remain. These include limited and often short-term financial commitments, as well as wide variations in income levels across Member States, which affect the capacity for sustained collective investment.

Despite these constraints, there is a significant opportunity to strengthen regional preparedness by establishing a more predictable and equitable funding mechanism, such as a structured system for Member State contributions or a regional revolving fund, to support coordinated action and long-term resilience.

5.3 Regulatory and Quality Systems

Most ASEAN countries are also members of the Indo-Pacific Regulatory Strengthening Program (RSP), which is funded by the Australian Department of Foreign Affairs and Trade (DFAT) led by the Australian Therapeutic Goods Administration (TGA), which has been another important platform for information sharing, reliance, and coordinated regulatory action[67, 68]. RSP partners within ASEAN include Cambodia, Indonesia, Lao PDR, Myanmar, Vietnam, and Thailand.

Through this collaboration, the RSP supports capacity building of NRAs thereby strengthening their ability to assess, register, and monitor medicines and medical devices, boosting regulatory quality, safety and effectiveness, and ultimately improving access to high-quality health products across the region. In addition, three countries (Myanmar, Thailand, Timor-Leste) are members of the South-East Asia Regulatory Network (SEARN), a volunteer association of NRAs for medical products within the WHO South-East Asia Region. The rest of the eight Member States are members of the WHO WPRO regulatory network. Another relevant network is the Pharmaceutical Inspection Co-operation Scheme (PIC/S), which is a non-binding agreement of regulatory authorities seeking to harmonise inspection efforts for Good Manufacturing Practice (GMP), and could be relevant when informing the regulatory process[69, 70]. Capacity strengthening initiatives in the region such as the Centre of Regulatory Excellence (CoRE) at Duke-National University of Singapore Medical School have courses and resources on health products and health services regulation[71]. The Centre for Innovation in Regulatory Science (CIRS) is a not-for-profit organisation that seeks to facilitate development of regulatory and HTA processes to increase pharmaceutical access, convening meetings and conducting research[72]. These collaborations could be leveraged for coordinated procurement. As such, regional partners such as WHO WPRO and SEARO are critical stakeholders to operationalise a coordinated procurement mechanism in ASEAN.

At present, the ASEAN PPWG and ASEAN FDAs are working on harmonising regulatory standards. However, there are challenges in regulatory harmonisation due to limited mutual recognition, and fragmented registration processes across countries. Refer to Box 2 for more information on the ARPF.

The feasibility of relying on the WHO PQ depends on the decisions of individual manufacturers or product owners on whether they pursue WHO PQ for their vaccines. Currently, vaccine approval is mainly through emergency pathways (i.e., during mpox), while routine processes remain fragmented due to differing national rules.

5.4 Operations and procurement process

The current situation in operations and procurement reflects a shared need among countries for access to low-volume, high-value or high-priced products. However, progress is hindered by limited harmonisation of supranational procurement processes, which makes coordination and collective purchasing more complex.

Nonetheless, opportunities exist. Coordinated procurement has already been identified as a priority area under both the ADSSR and AVSSR initiatives, providing a foundation for future alignment and collaborative action across Member States. However, the host institutions for initiatives such as AVSSR do not have dedicated personnel to manage the procurement processes for these initiatives.

In a survey shared with HTA agencies, respondents suggested using coordinated procurement for high-cost medicines (e.g., rare diseases) or for antibiotics that are not accessible.

5.5 Outcome and equity

ASEAN Member States are diverse in terms of population size, economic development, health system capacity, and market maturity. As a result, there is considerable variation across countries, with several Member States characterised by relatively small markets and modest economic size.

Given this diversity, regional collaboration presents important opportunities. These include improved and more timely access to essential health technologies, particularly for smaller markets that may struggle to secure products independently, as well as strengthened regional solidarity and collective resilience in addressing shared health challenges.

6. Recommendations for ASEAN

Based on the review, consultations, and survey inputs, and the opportunities identified in the previous section, it is recommend that ASEAN establish a collective bargaining or group contracting model, through a third-party negotiator based at ACPHEED (suggested). We propose starting with a few interested Member States that have common needs and systems, so as to demonstrate the concept to decision makers. This presents an opportunity for taking an incremental approach.

Given that one of the main factors facilitating the uptake of coordinated procurement is political will, it is recommended to engage with ministers of health from ASEAN Member States. Importantly, existing platforms and initiatives such as ADSSR, AVSSR and ASEAN RRMS as well as regulatory and on-going efforts for HTA harmonisation should be leveraged. It is recommended to focus on high-value or high-price and low-volume health technologies, including high-price, low-volume antibiotics, and utilising HTA to identify cost-effective, optimal interventions and inform joint negotiations. Other health technologies, including those being transitioned from donor support (e.g., Gavi or the Global Fund). Novel single-source health technologies could be prioritised for these assessments. Designing a financing model that is based on member contributions and can be developed into a revolving fund could be advantageous in the long term. Operational aspects of the mechanism will need to be developed further, attuned to current practices. These recommendations, as well as specific actions that can be undertaken, are summarised in Table 12.

A step-wise approach should be taken, with **the following actions to be implemented in the next 12 months:**

- Political commitment: Secure formal statement of ASEAN Health Ministers to endorse the principle of coordinated procurement and include in the priorities of the next APHDA.
    - Host informal meeting(s) alongside ASEAN or global health events to raise awareness and initiate action
    - Create a concise policy brief, a "Champion's Brief”, for Health Ministers and Finance Ministers with a request to endorse
    - Announce endorsement at a high-level platform such as the AHMM
- Pilot model: Draft a Pilot Project Memorandum of Understanding (MoU) or agreement focused on a single, high-value, low-volume product category (e.g., a specific group of antibiotics or another health technology identified as a regional priority) among selected, committed members of ASEAN.
- Peer-to-peer learning: Organise structured learning opportunities, either through virtual meetings or in-person visits, for key representatives from ASEAN and other mechanisms on priority topics such as establishing a Secretariat to manage coordinated procurement,

demand forecasting, regulatory and procurement processes, stakeholder management (including industry) among others.

Table 12. Recommendations for ASEAN.

Themes	Recommendations	Specific actions for implementation
Conceptual model and governance	• Launch a collective bargaining or group contracting model, focusing on high-value, low volume health technologies (e.g., specific antibiotics) with a small group of committed Member States. • Establish a neutral, third-party secretariat to manage the mechanisms, such as at ACPHEED or United Nations agencies such as WHO and UNICEF; • Formalise commitment through a Ministerial-endorsed agreement or MoU;	• Pilot model with 2-3 willing countries ○ Draft a Pilot Project MoU or agreement focused on a single, high-price/value, low-volume product category (e.g., a specific group of antibiotics or another health technology identified as a regional priority) among 2-3 selected, willing and committed members of ASEAN. Members could be relatively homogenous, with relatively homogenous needs, regulatory systems, and a history of collaboration. ○ Outline governance structure that protects sovereignty, highlighting that participation is voluntary and final decision-making authority rests with national agencies. ○ Set-up a Working Group involving representatives from each participating country to oversee the pilot, ensuring all voices are heard. Leverage on-going efforts under AVSSR, ADSSR and the ASEAN RRMS. ○ Mandate a neutral third party such as ACPHEED to act as the Secretariat and negotiator. • Secure a formal statement of support from ASEAN Health Ministers to endorse the principle of coordinated procurement. ○ Potentially have an initial meeting at ASEAN fora or the Prince Mahidol Award Conference (PMAC), which is held every year at the end of January, to initiate discussions among relevant partners; ○ Create a concise policy brief or a "Champion's Brief“, for Health Ministers and Finance Ministers, highlighting benefits from the proposed process financially, articulating the argument for regional security and

		sharing success stories, with a clear request to endorse the proposal ○ Utilise high-level platforms such as AHMM or host a dedicated side-event at ASEAN meetings or other global health meetings such as PMAC. Having a joint signing ceremony creates public accountability and momentum, turning individual interest into a collective regional initiative.
Regulations and Operations	• Streamline efforts for regulatory harmonisation with APRF to create a fast-track regulatory pathway for jointly procured health technologies; • Leverage existing mechanisms such as ADSSR and AVSSR.	• Establish an ASEAN Joint Procurement Regulatory Fast-Track that mandates the use of WHO PQ or WHO WLA or SRA approval for all jointly procured products. • Building on ongoing efforts on regulatory harmonisation, implement a synchronised submission and review process using the ACTD, with a defined timeline (for example, not exceeding 120 days), to ensure timeliness.
Financing	• Design a sustainable financial model for the mechanism with dedicated funding • Utilise evidence such as HTA to identify cost-effective, optimal interventions and inform negotiation strategies;	• Enlist financial advisors to design financing mechanism such as a revolving fund with member contributions for operational costs, and provide adequate flexibility and support to Member States; • Continue to advance harmonisation of HTA in ASEAN, building on activities in the current APHDA
Impact	• Monitor and evaluate the progress and effectiveness of the mechanism by identifying core indicators • Demonstrate value through regular reports; • Use data for advocacy	• Identify metrics and mechanisms to track impact from the start, with a baseline assessment: core metrics on number of joint procurement activities, percent of price reduction, percent of stock-out reduction and percent of on-time delivery, user satisfaction and supplier satisfaction.

Conclusion

Coordinated procurement is a powerful, proven strategy to improve access to affordable medicines and enhance regional health security. This study shows that there are several lessons to be drawn from experiences in other mechanisms. The ASEAN region is well-placed to utilise this mechanism and leverage on-going regional efforts to sustainably improve access to affordable health technologies, including priority antibiotics, and achieve UHC.

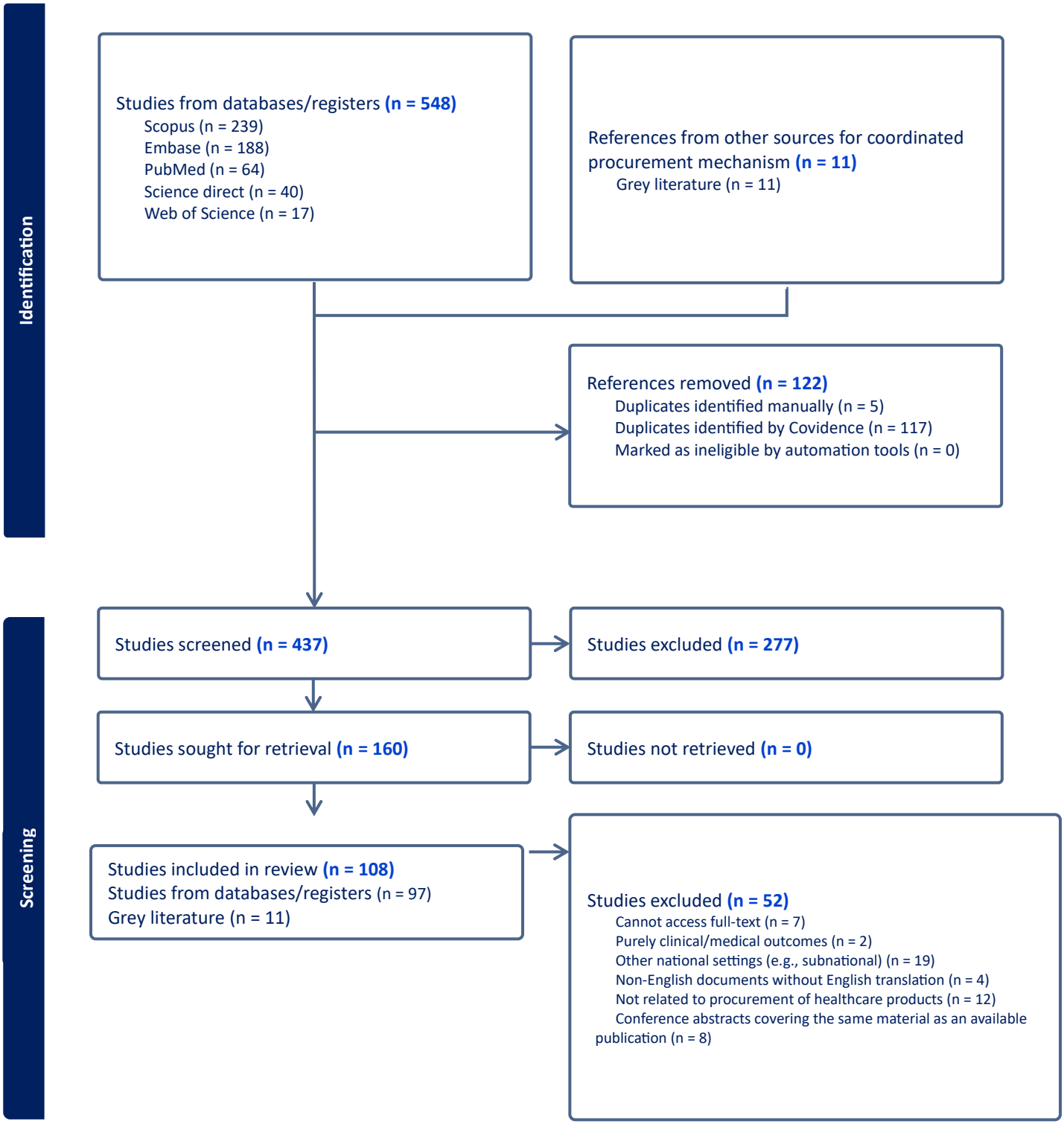
Appendix

1. Scoping review

1.1 Inclusion and Exclusion Criteria

Criteria	Included	Excluded
1. Context	• Global/Regional	• Other national settings (e.g., subnational)
2. Topic	• Coordinated/pooled procurement, regulatory policies, and regional cooperation in procurement	• Procurement or regulation unrelated to healthcare products
3. Outcomes	• Regulations • Implementation experiences • Enablers • Constraints • Funding mechanisms • Lessons learned • Case studies	• Purely clinical/medical outcomes • Not related to the procurement of healthcare products
4. Source type	• Peer-reviewed articles • Policy reports • Technical reports • Policy briefs	• Audio/video reports • Conference abstracts covering the same material as an available publication • Social media, blogs, media articles
5. Time-period	• Unrestricted	• Not applicable
6. Language	• Documents in English	• Non-English documents without English translation
7. Study design	• Any	• Not applicable
8. Participants	• Any	• Not applicable

1.2 Selection of studies



1.3 List of articles

Peer-reviewed literature identified through databases

Sr. No.	Title	Authors	Year of Publication
1	The main lines of cooperation among developing countries in pharmaceuticals	Balasubramaniam, Kumariah	1983
2	Major issues concerning pharmaceutical policies in the third world	Von Wartensleben, Aurelie	1983
3	Third World Initiatives on Pharmaceuticals: a documentation for the record	Patel, S.J.	1983
4	A global view of immunisation	Poore, P.	1987
5	Cost containment through pharmaceutical procurement: A Caribbean case study	Huff-Rousselle, M.; Burnett, F.	1996
6	Pricing of drugs and donations: options for sustainable equity pricing	PÃ©rez-Casas, C; Herranz, E; Ford, N	2001
7	Group purchasing of pharmaceuticals and medical supplies by the Gulf Cooperation Council states	Khoja, T.A.M.; Bawazir, S.A.	2005
8	Regional immunization programs as a model for strengthening cooperation among nations	Tambini, G.; Andrus, J.K.; Fitzsimmons, J.W.; Roses-Periago, M.	2006
9	Regional group purchasing of vaccines: Review of the Pan American Health Organization EPI revolving fund and the Gulf Cooperation Council group purchasing program	DeRoeck, D.; Bawazir, S.A.; Carrasco, P.; Kaddar, M.; Brooks, A.; Fitzsimmons, J.; Andrus, J.	2006
10	The Doha round's public health legacy: Strategies for the production and diffusion of patented medicines under the amended trips provisions	Abbott, FM; Reichman, FH	2007
11	Access to inhaled corticosteroids is key to improving quality of care for asthma in developing countries	AÃ¯t-Khaled, N.; Enarson, D.A.; Bissell, K.; Billo, N.E.	2007
12	Procurement of prescriber support systems	Kajbjer, K.	2008
13	Global strategies to reduce the price of antiretroviral medicines: Evidence from transactional databases	Waning, B.; Kaplan, W.; King, A.C.; Lawrence, D.A.; Leufkens, H.G.; Fox, M.P.	2009
14	The logical underpinnings and benefits of pooled pharmaceutical procurement: A pragmatic role for our public institutions?	Huff-Rousselle, M.	2012
15	New vaccine adoption in lower-middle-income countries	Makinen, M.; Kaddar, M.; Molldrem, V.; Wilson, L.	2012
16	Implementation of human papillomavirus immunization in the: Developing world	Kane, M.A.; Serrano, B.; de SanjosÃ©, S.; Wittet, S.	2012

Sr. No.	Title	Authors	Year of Publication
17	Strengthening Medical Product Regulation in Low- and Middle-Income Countries	Preston, C.; Valdez, M.L.; Bond, K.	2012
18	Benzathine Penicillin G for the Management of RHD: Concerns About Quality and Access, and Opportunities for Intervention and Improvement	Wyber, Rosemary; Taubert, Kathryn; Marko, Stephen; Kaplan, Edward L.	2013
19	Regional and temporal trends in malaria commodity costs: An analysis of Global Fund data for 79 countries	Wafula, F.; Agweyu, A.; MacIntyre, K.	2013
20	Part I - State of Play and Review of Major Cooperation Initiatives	Lezotre, Pierre-Louis	2014
21	Strategic contracting practices to improve procurement of health commodities.	Arney L; Yadav P; Miller R; Wilkerson T	2014
22	Comparative assessment of medicine procurement prices in the United Nations Relief and Works Agency for Palestine refugees in the Near East (UNRWA)	Ewen, M.; Al Sakit, M.; Saadeh, R.; Laing, R.; Vialle-Valentin, C.; Seita, A.; Bunders, J.	2014
23	Trends in procurement costs for HIV commodities: A 7-Year retrospective analysis of global fund data across 125 countries	Wafula, F.; Agweyu, A.; MacIntyre, K.	2014
24	Mapping HPV vaccination and cervical cancer screening practice in the Pacific Region-strengthening national and regional cervical cancer prevention	Obel, J.; McKenzie, J.; Buenconsejo-Lum, L.E.; Durand, A.M.; Ekeroma, A.; SouarÃ¨s, Y.; Hoy, D.; Baravilala, W.; Garland, S.M.; Kjaer, S.K.	2015
25	Advocating for efforts to protect African children, families, and communities from the threat of infectious diseases: Report of the first international African vaccinology conference	Wiysonge, C.S.; Waggie, Z.; Hawkridge, A.; Schoub, B.; Madhi, S.A.; Rees, H.; Hussey, G.	2016
26	Essential medicines for universal health coverage	Wirtz, Veronika J; Hogerzeil, Hans V; Gray, Andrew L; Bigdeli, Maryam; de Joncheere, Cornelis P; Ewen, Margaret A; Gyansa-Lutterodt, Martha; Jing, Sun; Luiza, Vera L; Mbindyo, Regina M; MÃller, Helene; Moucheraud, Corrina; PÃ©coul, Bernard; RÃgo, Lembit; Rashidian, Arash; Ross-	2017

Sr. No.	Title	Authors	Year of Publication
		Degnan, Dennis; Stephens, Peter N; Teerawattananon, Yot; 't Hoen, Ellen F M; Wagner, Anita K; Yadav, Prashant; Reich, Michael R	
27	Strategic procurement and international collaboration to improve access to medicines	Ferrario, A.; Humbert, T.; Kanavos, P.; Pedersen, H.B.	2017
28	Can voluntary pooled procurement reduce the price of antiretroviral drugs? a case study of Efavirenz	Kim, S.W.; Skordis, J.	2017
29	Achievements and challenges for the use of killed oral cholera vaccines in the global stockpile era	Desai, S.N.; Pezzoli, L.; Alberti, K.P.; Martin, S.; Costa, A.; Perea, W.; Legros, D.	2017
30	Do changes to supply chains and procurement processes yield cost savings and improve availability of pharmaceuticals, vaccines or health products? A systematic review of evidence from low-income and middle-income countries	Seidman, G.; Atun, R.	2017
31	The pandemic influenza preparedness framework: A viable procurement option for developing states?	Eccleston-Turner, M.	2017
32	Patent challenges in the procurement and supply of generic new essential medicines and lessons from HIV in the southern African development community (SADC) region.	t Hoen, EFM; Kujinga, T; Boulet, P	2018
33	Chapter 5 - Setting a Public Health Agenda to Support Access to High-Cost Medicines	Yamabhai, Inthira	2018
34	Essential cancer medicines in the national lists of countries of the WHO South-East Asia Region: a descriptive assessment	Chivukula, M.V.; TisÃ³cki, K.	2018
35	Pathways to ensure universal and affordable access to hepatitis C treatment	Douglass, C.; Pedrana, A.; Lazarus, J.V.; T'Hoen, E.F.; Hammad, R.; Baptista-Leite, R.; Hill, A.; Hellard, M.	2018
36	Public health-oriented intellectual property and trade policies in Africa and the regional mechanism under Trade-Related Aspects of Intellectual Property Rights amendment	Adekola, TA	2019
37	Vaccine procurement in the Middle East and North Africa region: Challenges and ways of improving program efficiency and fiscal space	Kaddar, M; Saxenian, H; Senouci, K; Mohsni, E; Sadr-Azodi, N	2019

Sr. No.	Title	Authors	Year of Publication
38	Blood glucose meters and test strips: global market and challenges to access in low-resource settings	Klatman, E.L.; Jenkins, A.J.; Ahmedani, M.Y.; Ogle, G.D.	2019
39	Exploring barriers to an effective supply of leishmaniasis drugs and diagnostics in Eastern Africa: A qualitative study	Sunyoto, T.; Potet, J.; Den Boer, M.; Ritmeijer, K.; Postigo, J.A.; Ravinetto, R.; Alves, F.; Picado, A.; Boelaert, M.	2019
40	Together working to improve access to medicines: Analysis of cross-country collaborations in Europe	Van Den Ham, R.; Vogler, S.; Haasis, M.A.; Suleman, F.	2019
41	How to address medicines shortages: Findings from a cross-sectional study of 24 countries	Vogler, Sabine; Fischer, Stefan	2020
42	The role of the joint procurement agreement during the COVID-19 Pandemic: Assessing its usefulness and discussing its potential to support a European health union	McEvoy, E.; Ferri, D.	2020
43	A situation analysis of the state of supply of in vitro diagnostics in Low-Income Countries	Stevenson, M.	2020
44	Transferability of Economic Evaluations of Treatments for Advanced Melanoma	Gorry, C.; McCullagh, L.; Barry, M.	2020
45	Facilitating Access to Cross-Border Supplies of Patented Pharmaceuticals: The Case of the COVID-19 Pandemic	Abbott, F.M.; Reichman, J.H.	2020
46	The role of vaccine banks in resilience, response, and recovery in respect of animal diseases	Dungu, B.	2020
47	The 'Netflix plus model': can subscription financing improve access to medicines in low- and middle-income countries?	Cherla, A; Howard, N; Mossialos, E	2021
48	Childhood cancer medicines: understanding barriers to access	Yadav, Prashant	2021
49	Impact of the European Union on access to medicines in low- and middle-income countries: A scoping review	Perehudoff, Katrina; DurÃ¡n, Carlos; Demchenko, Ivan; Mazzanti, Valentina; Parwani, Pramiti; Suleman, Fatima; de Ruijter, Anniek	2021
50	Determinants of access to childhood cancer medicines: a comparative, mixed-methods analysis of four Caribbean countries	Boateng, Rhonda; Petricca, Kadia; Tang, Brandon; Parikh, Supriya; SinQuee-Brown, Corrine; Alexis, Cheryl; Browne-Farmer, Chantelle;	2021

Sr. No.	Title	Authors	Year of Publication
		Reece-Mills, Michelle; Salmon, Sharon McLean; Bodkyn, Curt; Gupta, Sumit; Maguire, Bryan; Denburg, Avram E	
51	The politics of COVID-19 vaccination in middle-income countries: Lessons from Brazil	Fonseca, Elize Massard da; Shadlen, Kenneth C.; Bastos, Francisco I.	2021
52	The European Union and Public Health Emergencies: Expert Opinions on the Management of the First Wave of the COVID-19 Pandemic and Suggestions for Future Emergencies.	Gontariuk M; Krafft T; Rehbock C; Townend D; Van der Auwermeulen L; Pilot E	2021
53	Assessing the potential impact on health of the UK's future relationship agreement with the EU: analysis of the negotiating positions.	Fahy N; Hervey T; Dayan M; Flear M; Galsworthy M; Greer S; Jarman H; McKee M	2021
54	A review of prospective pathways and impacts of COVID-19 on the accessibility, safety, quality, and affordability of essential medicines and vaccines for universal health coverage in Africa	Amimo, F.; Lambert, B.; Magit, A.; Hashizume, M.	2021
55	COVID-19 preparedness: capacity to manufacture vaccines, therapeutics and diagnostics in sub-Saharan Africa	Bright, B.; Babalola, C.P.; Sam-Agudu, N.A.; Onyeaghala, A.A.; Olatunji, A.; Aduh, U.; Sobande, P.O.; Crowell, T.A.; Tebeje, Y.K.; Phillip, S.	2021
56	Access to fludrocortisone and to hydrocortisone in children with congenital adrenal hyperplasia in the WHO Eastern Mediterranean Region: It takes a village...	Rowlands, A.; Deeb, A.; Ladjouze, A.; Hamza, R.T.; Musa, S.A.; Raza, J.; Jennane, F.; Abu-Libdeh, A.; Chanoine, J.-P.	2021
57	European collaborations on medicine and vaccine procurement	Vogler, S.; Haasis, M.A.; van den Ham, R.; Humbert, T.; Garner, S.; Suleman, F.	2021
58	Global access to affordable direct oral anticoagulants	Neumann, I.; Schunemann, H.J.; Bero, L.; Cooke, G.; Magrini, N.; Moja, L.	2021
59	The European framework for intellectual property rights for biological medicines	Sciberras, J.; Zammit, R.; Vella-Bonanno, P.V.	2021
60	Fighting excessive pharmaceutical prices: Evaluating the options	den Exter, A.	2021

Sr. No.	Title	Authors	Year of Publication
61	From the first mile to the last: Challenges of the global surgical supply chain	Nazir, A.; Vervoort, D.; Reddy, C.L.	2021
62	Leveraging a matrix of stakeholders to facilitate access to chemotherapy for women's cancers in the Democratic Republic of the Congo	YouYou, T.G.; Mathieu, K.M.; Hicks, M.L.; Henry-Tillman, R.; Mutombo, A.; Anaclet, M.M.; Sylvain, M.K.; Hicks, M.M.; Pinder, L.; Kanda, L.; Kanda, M.; Parham, G.P.	2021
63	Minimizing COVID-19 disruption: Ensuring the supply of essential health products for health emergencies and routine health services	Lal, A; Lim, C; Almeida, G; Fitzgerald, J	2022
64	Assessing perceptions of establishing a vaccine pooled procurement mechanism for the Western Pacific Region	Abou-Nader, A; Heffelfinger, JD; Amarasinghe, A; Nelson, EAS	2022
65	The Race for COVID-19 Vaccines: Accelerating Innovation, Fair Allocation and Distribution	Daems, R.; Maes, E.	2022
66	Centralised Pharmaceutical Procurement: Learnings from Six European Countries	Vogler, S.; Bauer, E.; Habimana, K.	2022
67	EU health solidarity in times of crisis: explaining public preferences towards EU risk pooling for medicines	Baute, S.; de Ruijter, A.	2022
68	Impact of the COVID-19 Pandemic on Medical Product Procurement, Prices, and Supply Chain in Zimbabwe: Lessons for Supply Chain Resiliency	Yemeke, TT; Umaru, FA; Ferrand, RA; Ozawa, S	2023
69	ACCESS TO MEDICINES AND PHARMACEUTICAL PATENTS: FULFILLING THE PROMISE OF TRIPS ARTICLE 31BIS	Igbokwe, EM; Tosato, A	2023
70	Variations in global prices of chemotherapy for childhood cancer: a descriptive analysis	Habashy, Catherine; Yemeke, Tatenda T.; Bolous, Nancy S.; Chen, Yichen; Ozawa, Sachiko; Bhakta, Nickhill; Alexander, Thomas B.	2023
71	Access to essential cancer medicines for children: a comparative mixed-methods analysis of availability, price, and health-system determinants in east Africa	Petricca, Kadia; Kambugu, Joyce; Githang'a, Jessie; Macharia, William M; Njuguna, Festus; McLigeyo, Angela; Nyangasi, Mary; Orem, Jackson; Kanyamuhunga,	2023

Sr. No.	Title	Authors	Year of Publication
		Aimable; Laiti, Rehema; Katabalo, Deogratias; Schroeder, Kristin; Rogo, Khama; Maguire, Bryan; Wambui, Lucy; Nkurunziza, Jean N; Wong, Bryan; Neposlan, Joshua; Kilawe, Lilian; Gupta, Sumit; Denburg, Avram E	
72	High cost drugs in Latin America: access and barriers.	Rosselli D	2023
73	Interface policies bridging outpatient and hospital sectors in Europe: can cross-sectorial collaboration in reimbursement and procurement improve access to affordable medicines?	Vogler S; Salcher-Konrad M; Habimana K	2023
74	Supply-chain factors and antimicrobial stewardship	Kamere, N.; Rutter, V.; Munkombwe, D.; Aywak, D.A.; Muro, E.P.; Kaminyoghe, F.; Rajab, K.; Lawal, M.O.; Muriithi, N.; Kusu, N.	2023
75	Pandemic preparedness and response: Beyond the Access to COVID-19 Tools Accelerator	Saxena, A.; Baker, B.K.; Banda, A.; Herlitz, A.; Miller, J.; Karrar, K.; Fleurbaey, M.; Chiwa, E.; Atuire, C.A.; Hirose, I.	2023
76	Access to medical technologies for NCD prevention and control	Velazquez-Berumen, A.V.; Binello, N.; Thangavelu, S.; Moyao, G.J.	2023
77	Strengthening access to cancer medicines for children in East Africa: policy options to enhance medicine procurement, forecasting, and regulations	Petricca, K; Carson, L; Kambugu, J; Denburg, A	2024
78	Inequitable Distribution of Global Economic Benefits from Pneumococcal Conjugate Vaccination	Niyibitegeka, F; Russell, FM; Jit, M; Carvalho, N	2024
79	Barriers to access to antihypertensive medicines: insights from the HEARTS initiative in latin American and Caribbean region	Souza, KM; Giron, N; Vallini, J; Hallar, K; Ordunez, P; Rosende, A; Loya, BR; SÃ¡nchez, DD; Lim, C	2024
80	Strengthening the EU response to prevention and control of Antimicrobial Resistance: Policy priorities for effective implementation	Anderson M; Panteli D; Mossialos E	2024

Sr. No.	Title	Authors	Year of Publication
81	Pandemic preparedness and response: A new mechanism for expanding access to essential countermeasures	Hassoun, N.; Basu, K.; Gostin, L.	2024
82	The quest for more effective vaccine markets â€“ Opportunities, challenges, and what has changed with the SARS-CoV-2 pandemic	Cernuschi, T.; Malvolti, S.; Hall, S.; Debruyne, L.; Bak Pedersen, H.; Rees, H.; Cooke, E.	2024
83	Towards regional access to medicines: the development of the East African Community pooled procurement mechanism	Parmaksiz, K.; Asingizwe, D.; Gichohi, A.K.; Karengera, S.	2024
84	Importance of aligning the implementation of new payment models for innovative pharmaceuticals in European countries	Kalo, Z.; Niewada, M.; Bereczky, T.; Goettsch, W.; Vreman, R.A.; Xoxi, E.; Trusheim, M.; Callenbach, M.H.E.; Nagy, L.; Simoens, S.	2024
85	Securing the Future: Strategies for Global Polio Vaccine Security Amid Eradication Efforts	Harutyunyan, V.; Ottosen, A.; Burke, R.M.; Ehrhardt, D.; Shirey, M.; Durham, R.; Woods, D.	2024
86	Decolonizing global health: Africa's pursuit of pharmaceutical sovereignty	Mulumba, M; Oga, J; Koomson, N; Kara, TA; Cynthia, AN; Forman, L	2025
87	Essential Medicines, Pharmaceutical Policy and Global Health	Kim, Stephanie; Barnett, Anthony; Fry, Craig	2025
88	What are the key features of an equitable global vaccine strategy for the next pandemic? A qualitative study of pandemic control experts	Fawole, Ayodamope; Boyer, Beth; Shahid, Minahil; Bharali, Ipchita; McAdams, David; Yamey, Gavin	2025
89	Chapter 3 - Evidence on pharmaceutical pricing policies in Europe	Vogler, Sabine	2025
90	Voluntary information and price sharing database - a scoping review of the pricing and procurement landscape across eight Commonwealth Member States.	Kebirungi B; Ocran P; Kamere N; Mabote LK; Osi N; Joshi-von Heyden M; Gilmour E; Mghamba J; Robinson L; Babar ZU; Rosado H; Rutter V	2025
91	Law and power in pandemic negotiations: Policymaking via contract in South Africa's dealings with COVID-19 vaccine companies.	Hassan F; Abinader LG; Kavanagh MM	2025

Sr. No.	Title	Authors	Year of Publication
92	The EU Vaccines Strategy: A mixed bag of achievements and discontent	Arroyo, J.; del Giovane, C.; Mizsei, B.; Vu, H.; Yeung, T.Y.-C.	2025
93	Procurement institutions and essential drug supply in low and middle-income countries	Wang, L.X.; Zahur, N.B.	2025
94	Dynamics of global emergency vaccine stockpiles: A systems analysis and application to cholera	Guttieres, D.; van Riet, C.; Vandaele, N.; Decouttere, C.	2025
95	The potential role of biosimilars in healthcare sustainability in Latin America	Schaffel, R.; Cornes, P.; Espinoza, M.A.; GÃ³mez-Almaguer, D.; Maiolino, A.; Freire, D.; Foierl, T.	2025
96	Benchmarking infrastructure for cancer control in Commonwealth countries: a population-based observational study	Reddy, C.L.; Sousa, C.; Atun, R.	2025
97	Progress and challenges in Nipah vaccine development and licensure for epidemic preparedness and response	Kim, S.; Kang, H.; Skrip, L.; Sahastrabuddhe, S.; Islam, A.; Jung, S.-M.; Vesga, J.F.; Endo, A.; Edmunds, W.J.; Abbas, K.	2025

1.4 Targeted grey literature

Sr. no.	Title	Author(s)	Year of publication
1	ASEAN Declaration of Commitment on ASEAN Drug Security and Self-Reliance (ADSSR)	ADSSR	2025
2	Situational Analysis and Feasibility of Regional Collaboration to Improve ASEAN Drug Security and Self-Reliance (ADSSR)	ADSSR	2023
3	Small Island Developing States pooled procurement initiative in the WHO African Region: from declaration to actions and results.	WHO African Region	2024
4	The Valletta Declaration: Good practice in medicines procurement and negotiation to improve access to effective treatment and support sustainability of healthcare systems	Valletta Declaration	2025
5	ASEAN Pharmaceutical Regulatory Policy	ASEAN Pharmaceutical Regulatory Policy	2022
6	Strategy for Pooled Procurement of Essential Medicines and Health Commodities, 2013-2017	SADC secretariat	2011
7	SADC set to operationalise and revolutionise Regional Healthcare Procurement with SADC Pooled Procurement Services (SPPS) Business Plan	SADC secretariat	2025
8	The Global TB Drug Facility: innovative global procurement [Stop TB Partnership]	Kumaresan, Jacob	2004
9	The Global Drug Facility and its role in the market for tuberculosis drugs	Arinaminpathy, Nimalan	2013
10	The Global Drug Facility: a unique, holistic and pioneering approach to drug procurement and management	Matiru, Robert	2007
11	Initiative for coordinated antidotes procurement in the South-East Asia Region	World Health Organization Southeast Asia Region (WHO SEARO) - antidotes	2021

1.5 Variables extracted for the document review

Type	Variable	Description
	Sr. no.	Number added by reviewer
Characteristics of article	Covidence ID	"#xxxx" ID from Covidence software
	Author - First author	Last name, first name or group (e.g., Lancet Commission)
	Title	Main title
	Type of article	Research article, Review, Comment, Letter, Report, Book chapter, Policy brief, Other, Not applicable
	Year of publication	Year of publication
General	Health Technology	Type of healthcare product e.g. medicines, vaccines, medical devices, medical supplies, other, not applicable
	Sub-category	E.g., Cancer medicines, TB medicines, antibiotics
	Mechanism	Name of the procurement/ mechanism
	Purpose/objective of mechanism	Reason for establishment of mechanism
	Type of activities	Information sharing, Commodities purchase/funding support, Procurement process, Distribution, Organisational, Other, Not applicable
	Geographical region	Asia Pacific, Africa, Middle east, Europe, Americas, or Global, not applicable
	Sub-category	e.g., Sub-Saharan Africa, Southeast Asia (as in text)
Stakeholders	Management Organisation	Lead institutions and role
	List of members	List of Member States participating and role
	Funders	Name and role
	Technical assistance	Name and role
	Other	Name and role, if applicable
Implementation	Regulatory aspects	Harmonisation, market authorisation, quality assurance
	Demand management	e.g., forecasting
	Supply management	e.g., stockpiling
	Procurement system	
	Distribution	
	Impact	Increased access, cost savings, unintended impacts, other
	Other	
Financing	Sources of funding	Membership fees, revolving fund, advance payment, donor subsidies, other, not applicable

Type	Variable	Description
	Type of support	Eg financial support for commodities, procurement services, distribution services, organisational development, other
	Details	
	Long-term sustainability	Yes/No/Not applicable; How?
	Link to Essential Medicines Lists	Yes/No/Not applicable; How?
	Link to Health Technology Assessment (HTA)	Yes/No/Not applicable; How?
	Other	
Lessons learned	Facilitators	Examples: Political support, stable funding, legal frameworks (including for registration of health products), trust among members
	Constraints	Examples: Fragmentation, capacity limits, financing gaps, lack of collaboration
	Implementation experiences	Examples: Pilots, emergency responses, procurement cycles, distribution outcomes
	Recommendations	
	Other	
Other	Funded or commissioned by	
	Link	
	Coordinated procurement type	Following definitions from Nemzoff et al article: Informed buying, Coordinated informed buying, Group contracting, Central contracting and purchasing, Group purchasing and distribution, Other, Not applicable

2. Consultations

2.1 Guide for consultations

Questions for representatives of organisations managing coordinated procurement mechanisms

1. Please describe the coordinated procurement mechanism in your context
    - What type of coordinated procurement is this (e.g., price sharing, central procurement, etc.)?
    - What, according to you, was the main reason that this mechanism was established?
    - Are antibiotics included in this procurement mechanism?
2. How is the mechanism managed?
    - Who is the main manager?
    - Who are the other stakeholders involved, e.g., member countries, donors? What is their role?
    - What is the relationship between the manager and stakeholders?
    - What is the governance mechanism for this mechanism?
        - What are the incentives for stakeholders to participate in this process?
    - What is the source of financing for this mechanism?
        - What was the source initially?
        - Has it changed over time?
        - Are the different functional areas— for instance, procurement and commodities—managed independently of one another?
    - How are commodities financed?
    - What are the plans for the sustainability of this mechanism?
3. What are some of the lessons you have learned?
    - What have been the main facilitators for implementing this mechanism?
    - What have been the constraints in implementing this mechanism?
    - What would you have done differently if you could start again?
    - What is the main challenge you foresee for this mechanism in the future? How do you think one can address this challenge?
    - What would you recommend to others starting this mechanism now?
4. Do you have any other comments?

Questions for representatives of manufacturers of healthcare technologies in Southeast Asia
Purpose: To explore the feasibility of coordinated procurement of healthcare technologies, particularly antibiotics, within ASEAN and identify barriers and facilitators.

Section 1. Perspectives on Coordinated Procurement

From your perspective, what type of coordinated procurement is the most beneficial (of the above options) and why?

What would be the main benefits of a coordinated ASEAN procurement mechanism?

- Predictable demand? Economies of scale?
- Pros? Cons?

What potential barriers do you foresee?

- Regulatory misalignment? Differing procurement rules? Pricing policies?

Would your organisation be open to supplying under such an arrangement?

- What conditions would need to be in place (e.g., volume guarantees, harmonised regulations, advance payments)?

Section 2. Pricing, Affordability & Access

How do you approach pricing in [country]?

- Could differential pricing be applied within ASEAN?
- Are patient access or compassionate use programs available?

Section 3. Enablers & Lessons Learned

What policy or market changes would make regional procurement more feasible?

- Harmonised regulatory pathways? Standardised procurement rules?
- Long-term contracts or volume commitments?

Have you participated in regional or pooled procurement before?

- What worked well, and what challenges did you face?

Section 4. Outlook

How do you see demand for healthcare technologies, say antibiotics, evolving in ASEAN in the next 5–10 years?

What role do you think regional cooperation could play in ensuring sustainable access to new antibiotics?

2.2 List of organisations consulted

Sr. no.	Organisation/Mechanism	Country
1	Africa Centres for Disease Control and Prevention (CDC)	Ethiopia
2	Hanan Medicare	Malaysia
3	Ministry of Health, Malaysia/ASEAN Drug Security and Self-Reliance (ADSSR)	Malaysia
4	University of Malta	Malta
5	Sykehusinnkjop Norway	Norway
6	National University of Singapore	Singapore
7	National Vaccine Institute (NVI)/ASEAN Vaccine Security and Self-Reliance (AVSSR)	Thailand
8	Government Pharmaceutical Organisation (GPO)	Thailand
9	Pan American Health Organization (PAHO) Revolving Fund for vaccines and Strategic Fund	United States
10	Health Emergency Preparedness and Response AuthorityE	Belgium
11	Pharmaceutical Services Programme of the Ministry of Health	Malaysia
12	World Health Organization Western Pacific Regional Office (WHO WPRO)	The Philippines
13	EHPPA European Hospital Public Procurer Association	Belgium

3. Survey

3.1 List of questions

- Which country is your organisation based in?
- How familiar are you with the term coordinated procurement (also called pooled procurement)?
- Are you aware of any initiatives on coordinated procurement in the ASEAN region?
- Please provide details on the name of the mechanism, the health technology (e.g. medicines, vaccines, medical devices, etc.), members involved, type of mechanism (e.g. price information sharing, collective bargaining, group purchasing), and other.
- What do you think has worked well with this mechanism?
- What do you think could be done differently?
- Are you familiar with the Price Information Exchange for Medicines (PIEMEDS)-a regional online platform supported by the World Health Organization (WHO) that promotes price transparency by allowing participating countries to share and access public procurement prices, with the goal of improving access to medicines and enhancing procurement efficiency?
- What do you think has worked well with this platform?
- What do you think could be done differently to increase its use and achieve its objectives?
- Would you like to see a coordinated procurement mechanism in ASEAN?
- Why?
- Please share your expectation of the mechanism in terms of the health technology, members involved, type of mechanism (e.g. price information sharing, collective bargaining, group purchasing), and others.
- What do you think are the challenges of establishing a coordinated procurement mechanism in ASEAN?
- What do you think are the opportunities for establishing a coordinated procurement mechanism in ASEAN?
- Who in your country would be the key stakeholder to engage in discussions for coordinated procurement mechanism in ASEAN?
- Do you have any other comments for coordinated procurement mechanisms in ASEAN?
- Would you be interested in joining us for a virtual consultation, where we will share preliminary results from our review and consultations on coordinated procurement systems?
- Please share your contact information if you would like to stay in touch.
- Do you have any other comments?

3.2 Survey responses

Perspectives from ASEAN on coordinated procurement

A survey shared with networks in ASEAN for those working on HTA or pharmaceutical policies. Eight respondents from across four countries shared their inputs. Most respondents see benefits in coordinated procurement for price negotiations and timely access to health technologies. There were suggestions to consider using coordinated procurement for high-cost medicines (e.g. rare diseases) or for antibiotics that are not accessible. Information sharing/price transparency was proposed, and the expectation was that all countries would share and participate in the mechanism. The survey responses also highlighted the barrier of variable regulations and the need for political will and an ASEAN-level authority.

4. Coordinated procurement mechanisms in ASEAN

ASEAN Drug Security and Self-Reliance (ADSSR)

ADSSR initiative is a regional strategy aimed at strengthening access to safe, effective, affordable, and quality-assured pharmaceuticals through enhanced cooperation among ASEAN Member States. The initiative seeks to reduce structural dependency on external pharmaceutical sources and to build a more resilient regional medicines supply architecture. Its overarching objective is to operationalise a shared framework that supports coordinated action across the pharmaceutical value chain-including production, regulation, supply management, distribution, procurement, and pricing-particularly for essential, lifesaving, orphan, non-commercially viable, and high-cost medicines.

ADSSR prioritises collective measures such as joint procurement, regulatory convergence, and strategic investment in regional manufacturing capacity to promote a stable and continuous supply of essential drugs. The initiative also underscores the importance of transparency and accountability in procurement and pricing by encouraging systematic data sharing among Member States to support more effective price negotiations and improve affordability.

Findings from Situational Analysis and Feasibility of Regional Collaboration to Improve ASEAN Drug Security and Self-Reliance (ADSSR) 2023 revealed different in procurement systems, uneven manufacturing capabilities, and regulatory inconsistencies across Member States, thereby reinforcing the need for a coordinated regional approach. By leveraging regional economies of scale and promoting harmonised regulatory and procurement processes, ADSSR aims to improve medicine affordability, strengthen supply security, and advance regional self-reliance in pharmaceutical production over the long term .

ASEAN Vaccine Security and Self-Reliance (AVSSR)

AVSSR initiative seeks to strengthen the region's capacity to ensure a stable, affordable, and timely supply of quality-assured vaccines through coordinated regional action. AVSSR aims to reduce dependence on external suppliers by promoting regional production capabilities, harmonising regulatory pathways, and enhancing collaborative procurement mechanisms.

AVSSR's strategic focus includes expanding local vaccine manufacturing capacity, improving technology transfer arrangements, and aligning quality assurance systems across Member States to meet international standards. The initiative also emphasises regulatory convergence, including streamlined approval processes and strengthened lot-release and post-marketing surveillance systems, to facilitate intraregional vaccine movement. By leveraging economies of scale and shared technical expertise, AVSSR seeks to address supply volatility, reduce production redundancy, and improve long-term cost efficiency.

The anticipated effects of AVSSR include greater resilience against supply chain disruptions, improved readiness for public health emergencies, and enhanced bargaining power in global

vaccine markets. Over time, AVSSR is expected to contribute to sustainable vaccine availability, support regional self-reliance goals, and reinforce ASEAN's collective capacity to achieve equitable immunisation coverage .

Initiative for Coordinated Antidotes Procurement in the South-East Asia Region (iCAPS)

iCAPS, supported by WHO SEARO, demonstrates how pooled procurement can be applied to lifesaving but low-demand products such as antidotes. It was created to address widespread shortages and uneven availability of antidotes for common poisonings across the region. iCAPS allows countries to submit collective procurement orders and maintain emergency stockpiles that can be rapidly deployed when needed. The initiative operates under two complementary mechanisms: a routine coordinated procurement cycle and an emergency distribution pathway for urgent cases. By establishing shared governance structures and standardised quality assurance systems, iCAPS has proven that cross-border collaboration in medicine procurement is feasible and effective, offering a replicable model for other essential medicines.

Its beneficiaries comprise the populations of participating Member States, while key stakeholders include national focal points designated by ministries of health, as well as national procurement agencies, poison centres, and medicines regulatory authorities. Leadership and coordination are undertaken by the Thai Working Group, which consists of the Ramathibodi Poison Center (RPC) of the Faculty of Medicine Ramathibodi Hospital, Mahidol University; the National Health Security Office (NHSO); the Government Pharmaceutical Organization (GPO); the Queen Saovabha Memorial Institute of the Thai Red Cross Society; and the Thai Food and Drug Administration. Technical support is provided by the WHO Regional Office for South-East Asia, the WHO Country Office in Thailand, and WHO country offices in participating Member States.

5. Implications for Harmonised Regulation in ASEAN

ASEAN Pharmaceutical Product Working Group (PPWG)

PPWG is one of the sectoral bodies under the ASEAN Consultative Committee for Standards and Quality (ACCSQ), mandated to advance regulatory harmonisation for pharmaceutical products across ASEAN Member States (AMS). Its primary objective is to develop and implement a coherent, science-based regulatory framework that facilitates the alignment of national pharmaceutical regulations with international best practices, thereby supporting the free movement of quality-assured, safe, and efficacious pharmaceutical products within the region.

Operationally, the PPWG is responsible for formulating technical guidelines, mutual recognition arrangements, and harmonised standards covering key regulatory domains, including product registration, Good Manufacturing Practice (GMP) inspection, quality control, labelling, and post-marketing surveillance. This includes the development of the ACTD and ACTR, which streamline registration processes by standardising documentation and technical specifications for pharmaceutical submissions. Through these mechanisms, the PPWG aims to reduce regulatory divergence, minimise duplicative assessments, and enhance overall regulatory efficiency.

From a governance perspective, the PPWG operates through regular technical meetings, expert subcommittees, and specialised task forces that oversee specific regulatory workstreams. Monitoring and evaluation of implementation progress are conducted through annual reporting to ACCSQ and relevant ASEAN Health Sector bodies to ensure coherence with regional health and economic integration agendas.

Overall, the PPWG is instrumental in strengthening regulatory systems across ASEAN, reducing technical barriers to trade, and enabling a more integrated, resilient, and self-reliant regional pharmaceutical ecosystem .

ASEAN Trade in Goods Agreement (ATIGA)

The ASEAN Trade in Goods Agreement (ATIGA) serves as the foundation for regional economic integration by promoting the free flow of goods among Member States. Most intra-ASEAN tariffs have been reduced or eliminated, including for pharmaceutical products, facilitating smoother and more cost-effective trade. The agreement also establishes simplified customs procedures and common rules of origin, which contribute to faster movement of goods across borders. Although a few sensitive products such as specific medical devices and active pharmaceutical ingredients remain subject to limited tariffs, the overall policy has significantly improved the regional distribution of essential health commodities. By reducing trade barriers, ATIGA provides the economic and logistical foundation for broader cooperation on coordinated procurement and pharmaceutical self-reliance within ASEAN.

6. Implications for Public Health Emergencies in ASEAN

ASEAN Regional Reserve of Medical Supplies (RRMS)

RRMS was established as a collective mechanism to strengthen regional preparedness and response capacities for public health emergencies. The RRMS initially consists of earmarked medical supplies voluntarily committed by ASEAN Member States (AMS). These earmarked assets-such as personal protective equipment (PPE), sterilised surgical gloves, N95 respirators, face shields, protective garments, and emergency health kits-are stored, managed, and controlled within the contributing country's own national warehouses. Their primary purpose is to support national response efforts and to provide surge capacity for other AMS during outbreaks, emergencies, or pandemics.

RRMS operates on principles of equitable access and voluntary contribution. Supplies may be provided not only by AMS but also by ASEAN's external partners, international organisations, and the public or private sector. Oversight of the RRMS is situated under the ASEAN Coordinating Council (ACC), with operational management undertaken by the ASEAN Coordinating Council Working Group on Public Health Emergencies (ACCWG-PHE). Monitoring functions are jointly fulfilled by the Committee of Permanent Representatives to ASEAN (CPR) and the ASEAN Senior Officials Meeting on Health Development (SOMHD), supported by the ASEAN Secretariat.

Requests for the mobilisation of RRMS resources must be submitted by an AMS to the Chair of the ACCWG-PHE, with copies furnished to the CPR and SOMHD. Such requests must outline the public health situation, justification for support, detailed specifications of required medical supplies, quantities needed and contact information for coordination. The identification of supply origins is informed by geographical proximity and coordinated through SOMHD and CPR; mobilisation proceeds only upon confirmation by the supplying country.

The ASEAN Secretariat maintains the centralised inventory of all earmarked supplies and provides periodic reports to the ACC and ACCWG-PHE. Receiving countries are encouraged to arrange their own logistics for transporting and receiving mobilised supplies in coordination with the contributing AMS.

ASEAN Strategic Framework on Public Health Emergencies

The ASEAN Strategic Framework on Public Health Emergencies provides a coordinated regional architecture for preventing, preparing for, and responding to emerging health threats. It establishes guiding principles and operational mechanisms to strengthen multisectoral collaboration, improve early detection and risk assessment, and enhance collective response capacities across Member States. The Framework aligns regional health security efforts with

existing ASEAN mechanisms-such as the Health Cluster system, SOMHD, the ASEAN Coordinating Council, and specialised initiatives including the Regional Reserve of Medical Supplies (RRMS) and the COVID-19 ASEAN Response Fund. By promoting harmonised standards, shared surveillance data, coordinated resource mobilisation, and interoperable emergency operations, the framework seeks to reduce fragmentation and ensure a timely, cohesive response to public health emergencies. Ultimately, it aims to build a resilient regional health security ecosystem capable of mitigating cross-border health risks and safeguarding the continuity of essential health services during crises.

ASEAN Centre for Public Health Emergencies and Emerging Diseases (ACPHEED)

ACPHEED is a regional technical agency established to strengthen ASEAN's collective capacity for the prevention, detection, and response to public health emergencies. Established in the aftermath of COVID-19, ACPHEED functions as a permanent institutional mechanism to enhance surveillance systems, laboratory capacity, risk assessment, and workforce development across Member States. Its mandate includes supporting regional preparedness planning, coordinating cross-border response efforts, and facilitating evidence generation for policy and operational decision-making.

It is guided by the ASEAN Health Sector, with governance aligned to the ASEAN Health Ministers Meeting (AHMM) and SOMHD. The Centre collaborates closely with global and regional partners, to ensure adherence to international health security standards and to promote interoperability of surveillance and response systems.

By institutionalising regional cooperation and consolidating technical capabilities, ACPHEED is expected to enhance ASEAN's resilience to emerging infectious diseases, reduce response fragmentation, and support timely, evidence-informed action during future health crises.

The COVID-19 ASEAN Response Fund

The COVID-19 ASEAN Response Fund, established in 2020, functions as a regional financing mechanism designed to strengthen ASEAN's collective capacity to prevent, detect, and respond to the COVID-19 pandemic. The Fund consolidates financial contributions from multiple sources—including an initial allocation equivalent to 10% of the ASEAN Development Fund, voluntary contributions from AMS, Dialogue and Development Partners, and external organisations—to enable coordinated regional action in public health emergencies.

Operationally, the Fund supports joint procurement of essential medical supplies such as diagnostics, personal protective equipment, medicines, and vaccines, thereby promoting economies of scale and reducing procurement inefficiencies across Member States. In addition to facilitating emergency purchasing, the Fund finances regional research collaboration, capacity-

building initiatives, and knowledge-exchange platforms aimed at improving preparedness and response capabilities.

Governance of the Fund is conducted in accordance with ASEAN's established financial procedures. The ASEAN Secretariat manages the Fund, maintains financial records, and ensures transparency through regular reporting and independent auditing. Urgent disbursements are reviewed and approved by the ASEAN SOMHD, ensuring that allocations align with regional health priorities and emerging epidemiological needs. Remaining resources may be repurposed for future public health emergencies, thereby reinforcing the region's long-term resilience.

7. Key discussion points of second stakeholder consultation

The second stakeholder consultation was held on 26 November. The discussion emphasised that ASEAN pooled procurement should proceed pragmatically by building on existing regulatory and procurement systems rather than creating new parallel structures. Participants recommended strengthening regulatory reliance, drawing on existing pathways for medical devices in several ASEAN countries, while recognising that regulatory platforms differ in function and should be clearly distinguished between those focused on manufacturing standards and those evaluating regulatory performance. It was also noted that pooled procurement should not be limited to medicines and vaccines, as diagnostics and medical devices are highly relevant, particularly for manufacturers seeking ASEAN market entry and for public health emergency preparedness.

A strong consensus emerged that implementation should begin with clearly prioritised needs and a limited number of products that address shared demand across countries. Starting with a small group of willing countries was seen as more feasible than immediate region-wide participation, with technical coordination initially anchored in existing national institutions before considering a dedicated secretariat. Comparative European experience showed that voluntary procurement among willing countries can function effectively when one country leads negotiations, countries pay individually at purchase, and political commitment supports adherence to common procedures. Aggregated market volume was identified as an important factor in attracting industry participation.

Participants also stressed that procurement design must account for differences in national procurement structures, as centralised and decentralised systems affect implementation capacity. Bottom-up technical input from clinicians, pharmacists, and end users was considered essential, especially for complex products such as advanced medical devices. In addition, products with integrated service components, such as dialysis-related technologies, require broader procurement criteria beyond medicines alone. Limited data availability in smaller countries was identified as a key constraint for demand forecasting and prioritisation, reinforcing the need for gradual implementation supported by stronger national data systems and alignment across existing ASEAN initiatives in medicines, diagnostics, and vaccines.

8.Agenda: Stakeholder Consultation Meeting on Coordinated Procurement

Date: Wednesday, 26 November 2025

Time: 14:00 – 16:00 Indo China Time (ICT)

Location:

Microsoft Teams (Virtual)	Meeting ID: 492 162 913 292 5
Link: **Join the meeting now**	Passcode: s3VN9fC9

Participants: Representatives from organisations involved in coordinated procurement globally and in the Association of Southeast Asian Nations (ASEAN)

Background:

Coordinated procurement in this review refers to the range of procurement arrangements across countries, with the aim of improving value for governments and expanding access to health technologies. These arrangements include sharing price information, jointly conducting market research, jointly negotiating prices, centrally contracting and purchasing and distribution[5].

This study seeks to understand the key features of existing coordinated procurement mechanisms globally; learn about the challenges, enabling factors, and constraints (including the role of regulatory policy and administrative environment) for coordinated procurement mechanisms; and provide recommendations for the Association of Southeast Asian Nations (ASEAN) region as well as identify implications for antibiotics. A stakeholder consultation was hosted on this study with representatives from the region in July in Bangkok, Thailand (see here for the report). This study is being conducted by the Health Intervention and Technology Assessment Program Foundation (HITAP), Thailand, and is supported by the World Health Organization (WHO) and the Global Antibiotic Research and Development Partnership (GARDP).

Objectives of the meeting:

- To share findings from the study conducted on coordinated procurement;
- To seek inputs from stakeholders on the findings and recommendations;
- To identify future areas of research or activities and outline the next steps.

[5] Refer to Nemzoff, Cassandra, Kalipso Chalkidou, and Mead Over. 2019. Aggregating Demand for Pharmaceuticals is Appealing, but Pooling Is Not a Panacea. Center for Global Development.

Agenda:

Time (ICT)	Particular	Person Responsible
14:00 – 14:10	Introductions and overview of meeting	HITAP
14:10 – 14:45	Presentation on study and findings	HITAP
14:45 – 15:45	Discussion	All, facilitated by HITAP
15:45 – 16:00	Summary and next steps	HITAP

9. List of Participating Organisations for the Stakeholders' Consultation Meeting (26 November 2025)

1. ASEAN Drug Security and Self-Reliance (ADSSR)
2. ASEAN Vaccine Security and Self-Reliance (AVSSR)
3. Duke NUS Medical School Centre of Regulatory Excellence
4. European Hospital Public Procurer Association (EHPPA)
5. Fresenius Medical Care
6. Global Antibiotic Research and Development Partnership (GARDP)
7. Hanan Medicare
8. Health Emergency Preparedness and Response Authority (HERA)
9. Mahidol Oxford Tropical Medicine Research Unit (MORU)
10. MercurHosp Asbl
11. Ministry of Health, Brunei Darussalam
12. Ministry of Health, Malaysia
13. National Vaccine Institute (NVI)
14. Sykehusinnkjop Norway
15. University of Malta
16. United Nations Development Programme (UNDP)
17. World Health Organisation (WHO)
18. World Health Organisation Western Pacific Region (WHO WPRO)

References

1. SECURE Economic Procurement Report 2024 [Available from: https://www.gardp.org/wp-content/uploads/2024/02/SECURE_Economic_Procurement_Report_2024.pdf.
2. ASEAN Leaders' Declaration on Antimicrobial Resistance (AMR): Combating AMR through One Health Approach
3. Kodali PB. Achieving universal health coverage in low-and middle-income countries: challenges for policy post-pandemic and beyond. Risk management and healthcare policy. 2023:607-21.
4. Nemzoff C, Chalkidou K, Over M. Aggregating demand for pharmaceuticals is appealing, but pooling is not a panacea. 2019.
5. Prakash A, Sarin K, Chalkidou K, Dema N, Teerawattananon Y, Dabak SV. Pooling resources for better health: Exploring pooled procurement for health technologies globally and potential application in Asia. SSM-Health Systems. 2025:100103.
6. Butani D, Faradiba D, Dabak SV, Isaranuwatchai W, Huang-Ku E, Pachanee K, et al. Expanding access to high-cost medicines under the Universal Health Coverage scheme in Thailand: review of current practices and recommendations. Journal of Pharmaceutical Policy and Practice. 2023;16(1):138.
7. SECURE economic procurement report.
8. Library UND. Political Declaration of the High-Level Meeting on Antimicrobial Resistance : resolution / adopted by the General Assembly 2024 [
9. ASEAN main portal [Available from: https://asean.org/.
10. ASEAN Leaders' Declaration on Antimicrobial Resistance (AMR): Combating AMR through One Health Approach [Available from: https://asean.org/wp-content/uploads/2017/11/3.-ADOPTION_2017_ALD-on-AMR_Endorsed-13th-AHMM.pdf.
11. https://www.hitap.net/en/document/mission-report-improving-priority-antibiotic-access-in-thailand-and-regional-coordinated-procurement-mechanisms/ [Available from: https://www.hitap.net/en/document/mission-report-improving-priority-antibiotic-access-in-thailand-and-regional-coordinated-procurement-mechanisms/.
12. WHO guideline on country pharmaceutical pricing policies. 2020.
13. Macé C. Pooled procurement of insulin and associated supplies. 2022.
14. Parmaksiz K, Bal R, Van de Bovenkamp H, Kok MO. From promise to practice: a guide to developing pooled procurement mechanisms for medicines and vaccines. Journal of Pharmaceutical Policy and Practice. 2023;16(1):73.
15. Small Island Developing States pooled procurement initiative in the WHO African Region: From declaration to actions and results. 2024.
16. Pan American Health Organization. (n.d.). Pan American Health Organization. United Nations Global Marketplace.
17. Lal A, Lim C, Almeida G, Fitzgerald J. Minimizing COVID-19 disruption: Ensuring the supply of essential health products for health emergencies and routine health services. LANCET REGIONAL HEALTH-AMERICAS. 2022;6.
18. Kaddar M, Saxenian H, Senouci K, Mohsni E, Sadr-Azodi N. Vaccine procurement in the Middle East and North Africa region: Challenges and ways of improving program efficiency and fiscal space. VACCINE. 2019;37(27):3520-8.
19. Yamabhai I. Chapter 5 - Setting a Public Health Agenda to Support Access to High-Cost Medicines. Academic Press; 2018. p. 51-66.
20. Abou-Nader A, Heffelfinger JD, Amarasinghe A, Nelson EAS. Assessing perceptions of establishing a vaccine pooled procurement mechanism for the Western Pacific Region. PLOS GLOBAL PUBLIC HEALTH. 2022;2(8).
21. Procurement Tools: The Global Fund to Fight AIDS, Tuberculosis and Malaria; [03 December 2025]. Available from: https://www.theglobalfund.org/en/sourcing-management/procurement-tools/.
22. COVAX: Working for global equitable access to COVID-19 vaccines: WHO; [03 December 2025]. Available from: https://www.who.int/initiatives/act-accelerator/covax.
23. Fawole A, Boyer B, Shahid M, Bharali I, McAdams D, Yamey G. What are the key features of an equitable global vaccine strategy for the next pandemic? A qualitative study of pandemic control experts. Vaccine. 2025;61:127377.
24. Significance of political commitment. Political commitment: Significance and symbolism. .
25. Dictionary.com. (n.d.-b). Solidarity Definition & meaning. Dictionary.com. .
26. Institutional capacity definition - intro to public policy key term. Fiveable. (n.d.). .
27. Regional stability definition - US history – 1945 to present key term. Fiveable. (n.d.-b). .
28. Tech T. Study on Best Practices in the Public Procurement of Medicines. 2022.
29. Huff-Rousselle M. The logical underpinnings and benefits of pooled pharmaceutical procurement: A pragmatic role for our public institutions? Social Science and Medicine. 2012;75(9):1572-80.
30. Rahman-Shepherd A, Razavi A, Adetifa I, Erondu N, Hinjoy S, Ho ZJM, et al. ASEAN's response to mpox: Advancing regional and inter-regional cooperation to manage public health emergencies. PLOS Global Public Health. 2025;5(1):e0003985.
31. Afreximbank and Africa CDC pledge $2 billion facility in support of Africa Health and Pharmaceutical Products Manufacturing: Africa Business Communities; 2024 [11 November 2025]. Available from: https://africabusinesscommunities.com/health-industry/afreximbank-and-africa-cdc-pledge-2-billion-facility-in-support-of-africa-health-and-pharmaceutical-products-manufacturing/.

32. Huff-Rousselle M, Burnett F. Cost containment through pharmaceutical procurement: A Caribbean case study. International Journal of Health Planning and Management. 1996;11(2):135-57.
33. African Pooled Procurement Mechanism. 2024.
34. World Health Organization TRS 1033 - Annex 11: Good regulatory practices in the regulation of medical products [Available from: https://www.who.int/publications/m/item/annex-11-trs-1033.
35. Prequalification of Medical Products: WHO; 2023 [11 November 2025]. Available from: https://extranet.who.int/prequal/about/what-we-do#:~:text=WHO%20prequalification%20aims%20to%20ensure,resources%20and%20improve%20health%20outcomes.
36. WHO Prequalification [Available from: efaidnbmnnnibpcajpcglclefindmkaj/https://extranet.who.int/prequal/sites/default/files/document_files/WHO_DI_28-4_QualityAssurance.pdf.
37. What We Do | WHO - Prequalification of Medical Products (IVDs, Medicines, Vaccines and Immunization Devices, Vector Control) [Available from: https://extranet.who.int/prequal/about/what-we-do.
38. Petricca K, Carson L, Kambugu J, Denburg A. Strengthening access to cancer medicines for children in East Africa: policy options to enhance medicine procurement, forecasting, and regulations. GLOBAL HEALTH RESEARCH AND POLICY. 2024;9(1).
39. Information for Industry on FDA's Tentative Approval Process Under the PEPFAR Program [Available from: https://www.fda.gov/media/183851/download.
40. Preston C, Valdez ML, Bond K. Strengthening Medical Product Regulation in Low- and Middle-Income Countries. PLoS Medicine. 2012;9(10).
41. Health products policy and standards.
42. DeRoeck D, Bawazir SA, Carrasco P, Kaddar M, Brooks A, Fitzsimmons J, et al. Regional group purchasing of vaccines: Review of the Pan American Health Organization EPI revolving fund and the Gulf Cooperation Council group purchasing program. International Journal of Health Planning and Management. 2006;21(1):23-43.
43. Khoja T, Bawazir S. Group purchasing of pharmaceuticals and medical supplies by the Gulf Cooperation Council states. Eastern Mediterranean health journal. 2005;11(1/2):217.
44. CROSS-COUNTRY COLLABORATIONS to improve access to medicines and vaccines in the WHO European Region

45. Vogler S, Haasis MA, Van den Ham R, Suleman F, Humbert T, Garner S. Cross-Country Collaborations to improve access to medicines and vaccines in the WHO European Region. 2020.
46. Painter C, Faradiba D, Chavarina KK, Sari EN, Teerawattananon Y, Aluzaite K, et al. A systematic literature review of economic evaluation studies of interventions impacting antimicrobial resistance. Antimicrobial Resistance & Infection Control. 2023;12(1):69.
47. Colson AR, Morton A, Årdal C, Chalkidou K, Davies SC, Garrison LP, et al. Antimicrobial Resistance: Is Health Technology Assessment Part of the Solution or Part of the Problem? Value in Health. 2021;24(12):1828-34.
48. Bhandari RK, Pandey AK, Malhotra S, Kakkar AK, Singh S, Cohn J, et al. Addressing Challenges in Antibiotic Access: Barriers, Implications and Strategies for Solution. Pharmaceutical Medicine. 2024;38(6):387-97.
49. Pandey AK, Cohn J, Nampoothiri V, Gadde U, Ghataure A, Kakkar AK, et al. A systematic review of antibiotic drug shortages and the strategies employed for managing these shortages. Clinical Microbiology and Infection. 2025;31(3):345-53.
50. Waning B, Kaplan W, King AC, Lawrence DA, Leufkens HG, Fox MP. Global strategies to reduce the price of antiretroviral medicines: Evidence from transactional databases. Bulletin of the World Health Organization. 2009;87(7):520-8.
51. Situational Analysis and Feasibility of Regional Collaboration to Improve ASEAN Drug Security and Self-Reliance (ADSSR). ASEAN Secretariat; 2023.
52. Price & Quality Reporting: The Global Fund to Fight AIDS, Tuberculosis and Malaria; [03 December 2025]. Available from: https://www.theglobalfund.org/en/sourcing-management/price-quality-reporting/.
53. Yamabhai I. Setting a Public Health Agenda to Support Access to High-Cost Medicines. Equitable Access to High-Cost Pharmaceuticals: Elsevier; 2018. p. 51-66.
54. Commission E, Health E, Agency DE, Tech T, GmbH GÖB. Study on best practices in the public procurement of medicines – Final report: Publications Office of the European Union; 2022.
55. The Global Fund's Procurement System [Available from: https://extranet.who.int/prequal/sites/default/files/document_files/day3_session8_2_globalfundprocurement.pdf.
56. Pooled Procurement Mechanism Operational Procedures. 2023.
57. Wang LX, Zahur NB. Procurement institutions and essential drug supply in low and middle-income countries. Journal of Health Economics. 2025;101.
58. SECURE's Economic and Procurement Tools [Available from: https://www.gardp.org/wp-content/uploads/2024/02/SECURE_Economic_Procurement_Report_2024.pdf.
59. Sunyoto T, Potet J, Den Boer M, Ritmeijer K, Postigo JA, Ravinetto R, et al. Exploring barriers to an effective supply of leishmaniasis drugs and diagnostics in Eastern Africa: A qualitative study. Transactions of the Royal Society of Tropical Medicine

and Hygiene. 2019;113((Sunyoto T.; Ravinetto R.; Boelaert M.) Dept. of Public Health, Institute of Tropical Medicine, Antwerp, Belgium(Sunyoto T.; Potet J.) Medical Dept., Médecins Sans Frontières Access Campaign, Geneva, Switzerland(Den Boer M.; Ritmeijer K.) Medical Dept., M):S195-S6.
60. Barton I, Berger R, Clark M. The why of pooled procurement. Arlington VA: Management Sciences for Health. 2022.
61. Alleyne GA. The Pan American Health Organization's first 100 years: reflections of the director. American journal of public health. 2002;92(12):1890-4.
62. Chiang CY, Bissell K, Macé C, Perrin C, Marks G, Mortimer K, et al. The Asthma Drug Facility and the future management of asthma. The International Journal of Tuberculosis and Lung Disease. 2022;26(5):388-91.
63. Hoen EFM, Kujinga T, Boulet P. Patent challenges in the procurement and supply of generic new essential medicines and lessons from HIV in the southern African development community (SADC) region. JOURNAL OF PHARMACEUTICAL POLICY AND PRACTICE. 2018;11(1).
64. Charter of the Association of Southeast Asian Nations.
65. Initiative for coordinated antidotes procurement in the South-East Asia region: New Delhi: World Health Organization, Regional Office for South-East Asia; 2022.
66. List of WHO Listed Authorities WLAs [Available from: https://www.who.int/publications/m/item/list-of-who-listed-authorities-wlas.
67. Therapeutic Goods Administration: Performance Report 2022-23. Australian Government: Department of Health and Aged Care; 2023.
68. Six countries partner on Regulatory Strengthening Program. The Australian Government's Health Security Initiative for the Indo-Pacific region; 2019.
69. Brunner D. Pharmaceutical Inspection Co-operation Scheme (PIC/S). The Quality Assurance Journal: The Quality Assurance Journal for Pharmaceutical, Health and Environmental Professionals. 2004;8(3):207-11.
70. Pharmaceutical Inspection Co-operation Scheme [12 December 2025]. Available from: https://picscheme.org/.
71. Centre of Regulatory Excellence: Duke-NUS; [12 December 2025]. Available from: https://www.duke-nus.edu.sg/core/.
72. CIRS: Centre for Innovation in Regulatory Science [03 December 2025]. Available from: https://cirsci.org/.